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# PEGLASR PHONETU SYMBOLS 
















 viall: in tran-liturations of atm-krit.









 salmhelt.




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$j:$ in the tramslitratimu stan-krit amd the lranian lan-





t: the" Ernthumal ("thick" "N"derf") of the shavonice and

 ins ladn-bur. forms, and in wher flonctice writing.
 :anl in |hanetio writing.
3!: in stankit the eerelmal masil.







": start palatali\%ent o (ii) in Scambinavian.

f: wiedess velar (hack-arntharal) explaive: used in reconजructionc of lado-Fims. forms and in wher phonetic writing.
 lions of lmburbur. forms. and in wher phonetie writjus.
 In manditeratiar the lranian lamenages and in phow.ote writhy.
$\because \quad$ minfon Mopral spirant: used in tramsliterating Sanshrit.



$t:$ : forna of dontal mimat ment in tmanderating the lramian lamoname (roproented in Justion transliteralmill! !
$f:$ vaionco dental (interemtab) mimant. equivalent to Fing.
 writime.


 :mal in fluptidie writing.




# EAPLANATHON OF THE SIGNS AND ABBRENLATONS LSED IN THE ETYMOLOAIES. 

| ablat. | allative | 1)an. | Damish |
| :---: | :---: | :---: | :---: |
| aツcos | arensitive | Eug. | bugrimb |
| adjee. | adjective | Fre. | Frenclı |
| adr. | adrerb | (ierm. | (iprinam |
| If. | comprare | Goth. | Ginthir |
| топјин | conjunction | (ir. | Greek |
| derive of | derivative of | Hebs. | Habrew |
| dimin. | diminutive | Jecl. | leclamlic |
| $\mathrm{f}_{1} \cdot \mathrm{~m}$. | feminine | Ital. | Italian |
| sronit. | genitive | Lat. | Latia |
| imper. | imperative | Litlı. | Lithuanian |
| iurpr. | imprefect | Mediarv. Lat. | Mentiaval Latin |
| indie. | indicative | Mend. lat. | Mondrn Latin |
| intin. | mutinitive | M. ling. | Midule Engrich |
| пиas: | maseuline | M. 1t. Germ. | Midhl IIigh Cimman |
| nomiu. | nominative | O. Bular. |  |
| partic. | participle | O. Bus. |  |
| peri. | profect | (1). Fr. | (Hal Prowils |
| phur. | plural | O. Fris. | Ohl Frisian |
| prep. | 1remasition | O. 11. Germb. | Ohl Hish Cicrman |
| pres. | prosent | O. N . | Ohl Norsor |
| from. | pronom | 1. Sas. | Ond Sixan |
| se. | scilicet, surply | P'ers. | ICmian |
| simg. | singular | Porling. | Porturuese |
| suhst. | substantive | Pror. | Prowncal |
| vocat. | vocative | Sininsk. | Simbrit |
|  | - - - | Sc. | seritche |
| Angla-Fr. | Augh-French | Sman. | Spanish |
| Arab. | Aralic | swed. | Swedists |
| Avest. | Avestan | Tentum. | Teutonic |

## KEY TO THE PRONUNCIDTHON.



## NOTE


 whith is here erime.









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# UNIVERSAL CYCLOPAEDIA. 


ingston: city (ehartered as Wiltwrek 1661. settled 1665, incorporated by patent 1667, als a village 1805 , and as a (ity $1 \times 72$ ) ; eapital of Ulster co. N. Y. (for location of county, see map of Nrw York, ref. F-J) : on the Ihudson river. Rondont rreek, and the fel and Hudson ('anat: and on the U'lster and Del.. the Wallkill Valley, and the W. Shore railways; 5.5 miles $心$. of Albany, 90 miles N. of New York eity. 'rhe eity was formed by the cousolilation of the villages of Kingston, Rondout, and Willmur ; has regular communication with Rhinecliff, on the apposite side of the II wison, by steam-ferry, and with Albany, New Kork, and intermediate jlaces hy steamboat: and ship large yuantitjes uf eoal, cement, blue flagring-stone, brick, ice. dime, lumber. grain, fhour, and mannfactures, by cama, river, amf rail. It has a wharfage front of 4 miles, and 50 shombloats are owned there. 'Ther census returns of 1890 showed that 120 mamfacturing establishments (representing 44 industries) reported. These hat a combinem eapital of $\$ 2.374,50 \%$; emplored 1.648 persons; paid 5728.118 for wages and $\$ 1.84 \%$ 395 for materials; and had products raher] at $\$ 2.645,292$. There are 24 churches, 4 bibraries of all kinds with nearly 10.000 vohmes, 2 aeatemies, several private seminaries, it national banks with comfined eapital of $51,050,000,3 \mathrm{sav}$ -ings-banks, several hotels, and 3 daily, 3 weekly, and 2 othro periodicals. Kingsten received its first charter from Gov. Stuyvesant, was the place of meeting of the adjonrned sussion of the first State convention in 1777; the scent of promlamation of the first state constitution: the mecting-plac. of the Legis]atum in sept., 1775 : and was hurned by the British Oet. 7 following Pop. (1880) 1s.344: (\{8! (1) $2 f, 2 f 1$; (1892) State census, 21, 4\% .

Ebitor of "Freemax."
Kingston: borough: Luzerne co. I'a. (for luation of county, see map of Pennsylvania, ref. $3-I I$ ) ; wh the Suspilnhanmariver, and the Ibel., Latek. and IV, and the lehigh Vol. railways; opposite Wilkesbarre, with whieh it is connoctod hy two bridges amd electric street-railway. It is in the anthracite eoal region, and the township was the seenn of the celebrated massace of Wyoming, which is commemorated by an imposing monument. Kingston is the seat of Wrominir Seminary (3rthomist Episenpat, foumbed in 1844), which in
 and apparatus vaheot at over $\$ 00,0$ on and problulive funts


Emotar of " Dlorsivi 'f"Mrs."
Kjngston-on-Thames: town in the county uf surrey, Englaml; un the right hank uf the 'Thames; PD miles S. W'. of Lonton (sep may of Fugland, ref. 1:- It). It hak an extensive trade in eorn and malt, and many gomb alncutionat institutions. (oins am? other remains from the time of tha
 town and its nearmess to Eondon combine to make it a fa-


 East Ridine of Yorkshifre. Engrlame; wh the wost hank of the river IInh, at the point where it joins tho llumbre there ey miles wide): 20 miles from the month of the limmber, tid
mile's F. S. E. of York, and 173 miles N, of Lomdon; lat. $53^{*}$ 44 N., lon. 0 10 U. of Greenwich (see map of Englaml, ref. (6-I). It is also the thirel port of the kingulam, It.a oriminal
 ton-upon-Ilall, when he hecame the wwner at the town.

Area and (ienpral Fralures.- "j"he" town has an area of $x$, 2e26 acres, and forms part of a leve] ghan which is forotected luembankments from inumlations. It may be divideal into the Oled Town and the Sew. The Old Town, now bonnded N., E., and W'. hy docks, amd un thro S. hy the Jumber, forms an irregularly triangular jonimula. Tho streets aro generally barmow end eontined, but it is the msiest part of Jtall and contains the hest slaps. Thar strents in the Now "Fown are often spacions and regularly formed. 'I'he chied fatare

 lhock, opened in 1809. juined to the whenis by the I'rinces Drek, openet in 1829 , covers more than ${ }^{\text {a }}$ acress, aml is chiedy used by trading vessels from Amandam. Rotternan, aml other Dntch prots. The latilway lourk, opeming W". from the Inmmer loock, is mandy frephented by ships from Norway and swerlen. A cont frum the llull river on the E. leads to the Victoria Ihek, "rened in kito, wecupsing 80 acres and connecting with the lhumber as well as the llull. II. admits vessels of very barge tommone and is msed chiofly Hy timber-harden vessels from the latitice 'The Albert Jonek, ofened in 186!t, cowers 24 ateres.and the lareest steamers antar it with ease. Tu the W, of tho Alhort brock are the Sir Willam Wright [nok, 口pened in 16:0. and xit. Andrews.


 water-xper and $2 \frac{1}{2}$ miles of gatars. it the somblyrn extremity of the Ohd 'Town is a fine fromemale pher. Hnall received in $1 \times 61$ from its mayor jts finst mblio fark, of 37 acres, whieh is ealled after him learson's I'ark. 'lo this



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 of Parliamont for llalk unter the leatoration. 'Thw new Fx"hange amb the Com Exshomere are ahor in htalian style.




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Kins－vallarí：a lare Amorian valture（S゙arcorkam－
 or from its kingly latit of driving the smatler，more com－
 ferel in homgh；the tail，rump，and larger feathers of the wine are hatek，the rest of the plumate cream color．The hetal and moek armalmont barr，wrimkleal，motthel，and gor－
 from honthern braxil to Nertlurn Mexiow．

F．I．I．
Kingromb：the wouch of a Brazilian leguminome tree，a



Kinkajon：atmall catnivorous mammal of tropieal

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 athl is roatily tamed．

F．I．L．



























an agricultural and enal-mining region, and has large storkraising and fruit-growing interests, besides brick-making
 1,045 ; ( $189: 3$ ) estimaten, $1,3 \% 0$ Fintor of "Expres."

Kin, Next of: in law, demotes thone homel rolatives who are entitled to the personal estate of a heramed prom under the statute of distributime. 'Ihischins is for he distimguishel from hoiss at law whocend to an interates realty, althongh the two clasa's may be itentiond in at siven "ane' The rules for computing the inerrees of relationalip among the next of kin are given in Consanacture (q. \%). C'mber Ammistrathes will be finmel atatement of tha wher in which the next of kin were entitled tombinistron man the personal estate of the intestate. Who are the mest of kin and what are their rights to the prisonal perperty of an intestate are determined by the law of his domicile at the time of his death, zand not by the law of the place where the property is loeated. The varinus statutes of distributions in England and the L'. Si are funderl on tho 11sth novel of
 17.) As at rule, they provide fin per enpite dintributim among kinsmen of equal degree, am! they give the whole property to those who are neatest in merees. For example, if the intestate left. as his nearest kimbed, an ant amb a niece, the former woun take the while. to the exchsinn of the latter. Exepptions are generally mate in the ease of descendants, and of brothers ir sisters chidren. Jo these cases the chihlren of one of these deceased kinsmen take ly representation the share that their anerstor would take if living-that in, they take his share ger stippes, hut that share is divided between them per capita. The genemal 1 uliey of these statutes is to make primary provicion for the wifow. descendants. father, and mother of the electased, and when none of these survive to give the promerty equally to his nearest kinsmen whether of the whole or half hann. Kent's Commentarios, leet. 37 .

Frants M. licrbick.
Kino, kee nō: an astringent drug, the hardmod juice of Plerorarpus marsupium, a lufty tree, natural inder Fabocece, growing in the bint Indies, and also of other trees in the West Turlies, sumth America, Africa, and Australia. East India kinn is the only variety in genomase. It is in small, shiming, brittle framments, if it deep redilish-hlack color, and bitterish, highly astringent taste. It forms a deep-real solution in witer and aleobly!. Kinu owes. its astringency to tamic acid (tamin), ame is used in mediedine to cheek serions diarrhara.

Kinross', or Kinross-shire : county of Sontlamp ; lutween the connties of Perth annl life (xee map, of sontland. ref. 11-if). Area, is sf. miles. The surface is undulating. covered with low hills which melnse budh leven. The ail is a mixture of gravel and clay, but fertile, and atfords genal pasturage on the morlands. Pop. (1891) 6, 2s\%. I'rincipal town, Kimross.
Kinsale' : town : in the emunty of cork, Mnmer, lreland; on the Bandno river, 2 midus from its fall into the Atlantic (see mat of Irelind, ref. 14-k). It hats an excellent harbor, valuable theries, and is much resopted to as a bathing-phace. lant its trable has mostly then transfered th Cork. 1'op. $5.3 \times 6$.
Kinsay, or Quinsay: the name by which Hensermor-fon in China was known to Maree l'ho.
Kinston: town; capital of Lenoir cis, N. C. (for location of county, see mal of Surth ('ardinit. ref. $4-1$ ): on the
 W. of Newbern, 80 miless. E. uf Raileish. It is in an agricultural region, amd has hamber-mills. turputine-distillerise carriage and phow fatorime and a wrokly am at monthy


## Kintyw : See Caxtire.

Kioto, Miaco, ur Naliat the thiral "ity of dapan in popatation, and for wer $1.010 \%$ yous the residanem of the
 close to the south and of latio l'iwa (sem map of Janan, ref. G-( $)$. The main purtinn of the city wecompion a 1 wrfectly flat site on tha south bank of the kianorawsand in laid ont with mathomatical restalatify: the noph furtion. consisting largely of temples, lies mon the se of a range of hills. The histuric palare of the miknow in at the west omb. simple structures of woml in an inchane of athon stacres At the east end are the ereat templus of than Hatwanj sect, with a college in the immiom style. Hore in, the center of Japanese Buduhism. There are mamerons interestigg
 the ratigu of hills separatine the enty from Lahe bima, and










 healuarters of the miswim work in anden of the Ameriean
 whalices has then fomment the Whaisha, a colluge of high stanling. Clane to kinte is Tji, where in srown the timest hat in the rmpire. A camal has bernexavatent combeting lake Biwa with the eity. Thrash monmetion berail with Trakio was ontablinel in 1ss!? , the railway to kote hal theen in "xistence tor tifteen years previonsly. J. M. Dixos.

Kiowan Indians: a tribe now living in the sonthwertern pretion of Whlahmat, in alliance with the Comancher. lat comstituting a distinct limenisti- stock. Ih tinite Pradition phaces their orginal bume in the nuth, whener they were driven ly the simu amb other enemies, and in is quite probable that they are crimate with mate of the tribs abont the heal-waters of the Minoturi. They were the man savage and predatory of all the brairic, tribes, ant are still but lith he "hanged by eivilization. They fomerly carred their raids far sumth into Dexion, hat sime ahnut ision have bern con-
 duced hy war and diseane, and mantur less than 1.200 .
dames Muostr.
 authir: W. in New York, W.f. : 1 Nil, of an old family of Wutch desent (ariginally Kylu). Dr qraluated at Yale in


 lle is the author of many works. annot which are The Lenten F'ust (1s43, many editions); The Ihonlle Withess of the (hureh (144, many editions): (hristmes Holideys
 Missions in North Atmerict (1with): Eurly ('omellits of ('hristionity (14.50): The Cetrecombs of Rome (1sist). 11.0 has contributel moth to perivdical literatur". It. in san

 Wha Lonkwonl Kipling. !.J. E., head of the Maysthand


 likhen in Labnere and . Hahahat, and also produred with marvelnus mandity volum after whme of tater and peras daling with the life of the lititish in lnetia, whish matamed

 the Mills (15sh): siddiom These (1sen): The Phenintom

 hamen written in collaburation with Wolent lateoticr. his brother-in-law.
11. A. Bhars

 teonth whture and whidh extemben from the daxate in Thatestan to fhe limits of linsia proper, ant empricel all
 per, Ihom. V'ulqa, and ['ral. Siter the areer of Tamerlane





 whamed he living of harham. Whim he lath throush lite:










 [140N1.s.








 whid the ferencharmy wan whembent. Durine the siege
 hevial hy (c. II, Tarmar.
Kirchhoff herk huf. loarle: Whang Itexm: mining














 ral wibence al the miveraty of his mative city : bectured on




 tontion : but his "porli-mating worke wore the incoution
 the estahlishment of the haw of radiation of light and hatat.






























## 









ture amd to helation to the r'ulture of hassiat (105), amd on The J'osibalaty of Sew IMilosophical I'rinciples ( $\mathbf{8 5 6} \mathbf{6}$ ).
 radhoml it. limit. had lirought to its disejples only unrest

 abome reanom was mot survel from faith, and which alone
 rewtriner morals. Jlis complete wortic weropublinhal (Nos(ッい, 1~6i).
A. C. C'mondiaE.

Kirghiz: a 'latar- \anged nomadie people of (entral
 gion which extembs from the (aspian cra to the Altai Thmatains. and from the sea of $\lambda$ rad to the 'lobol ami lyish, and is trawersed by weral monntain ranges between
 Nirghiz are aliviled inta two main braneles, the Kirghiz-

 Mrupy the region surrounding late Issik-knl, and called
 aro dividerl into the Jitthe, (;reat, and Nidule Hordes, poritically distine from ome amother. 'Jhey are of Fastern ar 'Jumer-Tataric origin. akin to the Cobtreks in race and lanpuage. They arr brlow middle size, but strong amel harly; have the himh chart-homes amd small, deop-sct, whique eyes of tha Domenlians, but their fares. thomgh gemerally ugly, are mot wholly dat. 'Their language is a very pure 'lurkish liadoet; their religion, a misture of lslamisin and idolatry. 'Thumer' they are not savages, their state of civilization is Jow. They know little of agricultare, and still less of mannfactures. The breeding of sherp, horses, and camels is their businus, besibles oceasional robbery. In the beginning of the nimeternh hentury they fully deserved their title of the " slave-hunters of the stepjes." They at tacked the caravans, took the grouls, and sult the persions as slaves at the marknts of Khiva and Bokhara; hat the line of forts which the linssinn Govirmment has laid thromerh the eountry has effoctually checked this husiness. 'l'he women, who often are quite protty, do the wark. The nun suend most of their fime on horsuback, hunting aml suorting, or in semsmons enjusments. Natton, horsellesh, ami sonr mare's mike, frem "liach an intoxicating loverage is ristilled, are the principal atticles of foorl; bread is mearly unkown. They are govromol by their own ehiettains, hit since 1860 they lave been hoonght under Rusian authority, and great pains have lecen takn to eivilize them, 'There are no towns among them,
 fommat vectiges of an varlior divilizal race.
'The Bumats, or trat Nirghiz, are fommd in the neighborhuml ot lssik-kinl, the ralleys of the Them-shate as well as the Jlaid Jomatains, amd the Pamir to the south of Khokand. "low arb divided inte two grat divisions. 1 he on or right, and the stol ur left. 'lhbey manher ahout 200,000 within the lawian dmaninns, and there are thonght to be about 150 ,000 in ('himest 'lurkostan and khokand. In mamers, eustumas and religinn the rosinhle the Kirghiz of the steppes.


hevind by li. Lhafy.

Kirk. Jans Fistre: historian; h. at Frealerictom, New

 ha was serpetary to the historian Ireseott, of whese works lor mhtul a revind adition. Ho wrote a Jistory of Charles






 Lievined by 11. A. Merks.
Kirkbride. 'lamas storv, M. J., 1.1. W. : alienist; b.






 loe lanar fromistt th law date of his death. Je was the firal surematement in the l'. S. to whate the sexas by
plaeing them in dislinct institutions. Ilis first publication, in 1845, Remarks ane the Construction and Arrangements of Ilospitals for the Instare, was remblinded in isi.t in and enhared form, and again in 1son. with mumerem ahlitions. In his forty-two years of superintembery of the lemmstvanialloppital fur the Insane. Wr. Kirkbride tomk ul, in his annual reports, nearly esery suliject eommectol with the care and treatiment of the insame and the provinion to be mate for them, and dinerased all topers emmerted with the construction, heatine, and rentilation of hositala. These reports are uf ereat value to students of mental dixemase. Ile was also a member of momerous commisums on the ereetion and management of insame hospitals and an active partioipant in the medical and philanthropic institutims of Philadelphia. The derree of has. W. was conferred on hima in 18\%4. 1). Dee. 17, 1883. Kevised by S. T. Arastrome.

Kirkealdy kir-kaw'di: town of Fifehire. Sentand: on the Firth of Furth, where it stretches along the northorm shore for more than 3 miles (see map of seotland, ref. 11-1). Its local mame is "Lang town." It has harge harhingfields, flax-spinning mills, and manfartures of linern and cantas. and its harthr, though comuletely dry at how water, admits large vessels at full tide. P'op', (ixy1) 17.394.

Kirkendbright. kir-koobre: chonty of sontand: in the district of Galloway. lordering on the Jrish sad and the Firth of Solwar. Area, 911 sin miles Gnly one-third uf the surface is aralile; the rest is granite hill. covered with moss, the highest of which are Blacklars, wew feet, and Cairnsmoor. 2,32 ? feet. Generally smaking. mither the climate nor the soil is alated for the cultivation of arma. while both are well suited for grass and green erols. Cat fle of the colehrated (ralloway breed are rearet hare. fons of county (18:1) $39,4 \%$. Princijal tuwn, Kirkemibright (see map of scotlant, ref. 15-(i).

Kirkdale: parish of Yorkhire. Fngland ; in the Yalm of Dickering ; remarkable for a cave 24,5 fert lomg, disems-
 A great abmolance of fussil bones of extinct sprecies of animals was found there and was first descrithed by br. Buckland in his Reliquit Difteriente. The most remarkable remains were those of hymas, tikers, elephants, rhinoceroses, hippopotamuses, cave-hears, and horses, of speries mot now represented in Englaml, See Dawkins, Curthuntiog (18it).

Kirke or Kertk. Nir David: alventurer: b, at Dieple. France, in 1.ong, of English parentage: was engagil in business as a wine-merchant in Burdeaux am Cornat. hut went $t_{0}$ Eangland in conserpuence of the persecutions of the lluguenots, and with his father and hrothors berame manected with sir Willimm Alexander\& Amprican ponents. David crmmanded in 1638 an expedition of there verolls under letters of marque, with which he hlowathel Guather
 a Freneh syluadron commanded by de limpucmont sent for the relief of Quebee. In 162 ? Kirke and his buthers agan sailed from England arainst Canada. compulled ("hamplain to surrender Quetree in July, and also relmeed the mony of Cape Breton. Buth thes ennmets. haweser, were rpstoreal to France in 16:3. Kirke was knighted in lifas, and with others obtained ag grat of Sewfomblatel. Whith he colonizet, heitge rovernor of that ishand for twatsy yars, until dispossesed by tronwell, when be went to bingmit and recovered his property throush (romwall's sh-in-law, Claypole. He returnod to. Newfomdland, and dien at Ferrylame in 16:06. His Life was published hy a domend


Kirkes. Whminm sembove, M. D.: physician: b. in
 tholome w: Hlapital in lamion: publivhel in late. With Dr. Sames Paret, a Hondoush of Phywintugy. Which berame a stambarl work upon that subject hath in Englamel and the

 Motion. Papers an the Deforhatent of Filrimumes In pasils
 tribution to pathohgital arience. 1). in Dee... 1with.

Kirk-Kilis'selt: town: in the prowin" of Rom-khe. European Turker : on the Frkene a trihutary of the Marit $=$
 of the Fakhi defle over the Strampathonains. Thronsh this defile passes the shortest rasid from shmma to ('anstantinople (sep map of Turkey, ref. 4-1). It antains fine mosques, publie baths, and extensive hazars, hut is poner-
ally ill built. It is famom for it - ronfectiomery and carrme on an active trale in buttor atal cheese. Dhp, 16.900.




 Greek and (irman (1-62-8) in his alma mater. He onnt

 sity in 1586, and chancellon of the same in olume. 1893, Ihe




Kirkman. Marnale, Mosmos: railway mamarer amd anthor: b, in Illimois, futy 10, 1st?: wan cilucatom at pub-


 Wextern Ralway: anthor of numorons worts on railways. induding Railumy Disbursements (1solb): Ruilduy Train





 Condrol (1sed.


 Lar in tros. He is prendent of the Duminiom Jifle Asorciation: commandet the Wimbladon rillo team in INit: and was a chmmissioncr at the Colonial and Indian Exhithtion, Lombon. 1seb. He was a momber of the Dominion
 in 18:3 was apmintel Lieutenant-(invernor of ontarin. We was knighted in 1 s.te.

Nem, Matiosali,
Kirknille : city ; capital of Adair co.. Mas (for lomation
 Omathon and Fans. (ity and he Wahesh railways ; 65
 an agricultural region, has an abmotant sulpily of wowl and conal, amb contains elevell churelues, the State Kormal Schan of the firs district. a motantile endere: and hot and




Kirk'wall: a roval parliamentary, and police hargh of Scotlant ; eapital of the onkney inamls. sitaratel N. E. of the mon northarn point of heothand, and formerls an inderembent kinguma. There is a tine "athedral of Ni, Hacmu= dattug from ahout lise and chase ly the rains calleal the Kinge, the Earls: and the Bishong palaces. Kerkwall has steaner communication with Lepth. Shwhen, anm Wick, on the manland, with Larwick, the chat fuma if the shet-


 tranmar shoul, and mativath sminy. kithwall. which
 with Wiek, l'rmarty. Dingwall, Durnerh, amb Tain (all on































 （＂．）



































 for churehe and onher pathe haldines and lis aroups of







































 if life．＇Ithe chantry is ticrtile，well watered．Well cultivated， and hesond thr rim in the low lames and centom near the


 quired by the Prition in lase．

II．W．H．


## 

Kitu［M．Bing．O．bise ribn kit．］：a name aj－

 －＂लo．＂devply forknd ail．Kites are hirds of ensy，
 mbla．The rommon kite of Durne Milus regalis，is of a anderal reddish－brow color．The kite was once very nu－ merons in Findaml．Int is mow all but exterminated．The swallow－taile，［ kitc．Elanoiles forticates，of the sonthern gartis of the C．．is ghow blank in winges tail．and back， white elowherr，ineloding the rmmp．

F．i．LACs
Kite［from fite，a hird：©f．（i，um，drache．Jragen，kite］：： tog which has hen employed for ages and in many count rins hy inge a fayhmer，which has alsu had its seientitic uses． Thus frathem and others have obtaned the chectric spark from the elombe by this dangrons means．lu engineering the kitw han bern emphed to carry lines across depe chasmes． bhos suplyine a mons of carrying heavier eables，and by Thoir use in thru．parts of the sustaining frame of the struc－ ture daring its erection ；similarly it has hem used to con－ vay life－lines armes a line of surf and lieakers，removing the parangers of standed ships．Un（0．en，N．1s96，in tests mande at the line llills（Haseratory，Massachasetts，a beight of thas luet wat attainet，and the metemrologid combitions at that altitule were atourately meorded by an attached meteormsabh．＂The kite is a light frame of wood eovered
 that it shath he acted uma by the wimd much like a shipis
 thin eriver ：he kito stombess in shthen thaws of wind．The Chineve and tapanem rentruet kites in the form of owls． bats．dragens．cte．These have me tail，bat ty well．
hil－lox：a small fox（lotpes vefore）fomm in Westurn Sheth Imeriac evecially in the drier parts：also known a the swift fox，athough mot wecially thet．It is less than ：＇feet in lemeth．＇lle color is ghlowish－gray，some－ what redlish in mmone．

Fi．i．
 forty shathemon of ability and rank，interemon in promot－
 was intitutal in lias，and tow it：name from Christopher
 Hoy mot in kime strat．Wintminator，and sumpliad the
















Killatin＇uy，whan Mundain：achain which takes its




tomac near Berkeley springs，and continues with gradually lessening altitule through Virginit，Nurth Corolina，and Temnesse into Alabama，thas having a total longth of more than som miles．haverage＂levation and halk the Blat Mountain range exeeeds the lhue Ridgre．whith han andintal greater prominence on maps on acemont of its greater doti－ Dilconess，springing at it dnes from a mormo hare，and the areater height of some of its peaks．The anmage ele tation of the Bhe Nountain is from sou to ？ 5 dot tere．
Kittiwake：a small gull（Rissce friluctyle）fomma abun－ dantly on both sides of the North Athanti＂and laciliv，the Pacilic hirds being aceorded ther rank of a sulb－suction owing to the fact that the hime toe is rudimentary or abment．＇This speeies assembles in great nombers at some of its breeding－ places，one favorite Jocalitr，near Kopth C＇ape＇，on tha（wast of Norway，containing millinns．

I＇．A．I．
Kit＇to．Jums：Bihle student ：b．at Plymonth，England， Dee．4，1804；when thirteen years old totally lost his hear－ ing in comsequence of a fall from a ladder whilo assiating his father，who was a stome－mason；was sent to the work－ house in 1819，and learned the shomaker＇s trate，but de－ voted all lis time to books．Friends enabled him to gratify his jassion for remding，amd assisted him to publinh in l＇lym－ outh in 18.5 Essays and Lefters，which attracted much at－ tention．De learnet the printer＇s art in the langton Dis－ sinnary College；resided at Malta 18？-24, and at Pagdal 18：9－52；traveled extensivelr in the kast 1s：9－33）：jmb－ lished the Pieforial Bible（183s）；Pietoriel Mistory of Mel－ estine（18：39－40）：another History of Italestine（Edinimrgh， 1843）：The Lost Senses（antobugraphieal，Lumbn，184．9）： edited and largely wrote the＇ychonenio of Biblicul Litero－ fure（1845）：fombed and edited the Journal of Sucret Lilerature（ $184 \mathbf{s}-33$ ）．Of his many oher works，the most popular was Drily Bible Mhestritioms（ 4 vols．， 1 sta－ia）． Kitto received the degree of II．1）from（iesenen in 1st4． but he was a layman of the Choreh of Enclama．II．at



Kitunahan Indians（ako known as Contema，kontenay， Flatbow，etc．）：a small hody of lmbians formine a distinct linguistie stoek，formerly inhathitig the monatamon tract between the two upper forks of the columbia river，kion－ tenay Lake and river，British Columbia，and the adjoining parts of the U．s．It is believed that they early inhabited the territory E．of the mountains，int were driven anms thom by the Blackfont tribes，from whose incursions they suttered severely．In their customs they do mat difer widely from the other interior tribes of that rewion，but they are sail to resemble more the ladians F：．of the lanky Momatans than those of lower Orequa，They are mallest and serupulnusy bonest，particularls the［＇per Contomai of British Columbia．They are exprt hunters and finher－ men．The lower coutemat raise large numbera of home lios use in hunting and traveling，and entorer to till thoir lands by aid of irrisation．The jotter＇s art is mknown th the Kitmanhan，and they do less wood－carviner than the cuast tribes．＇lhey live in large lalges with frameworks uf con－ verging poles，cowered with canvas in lien of moffalor hides which wire formerly ued．They have puarred internt－
 chase，no remmer beine demed escential，and the firt child is saill tw be carerifiem th the sum to incure latilth and happinesis to the whan fanily．The dead are dresod in their best elothiner and are hariol outatretelum，with home probably th the E．：the dereasol＇s horse is killud and his
 Cootenai are moninal Christans，hat fla Lower Comonai
 customs．Thay have an elathorate syatem of satmaniom．
 the arms and hrast to frevent disastor，amb hofore berin－ ning a commed or emducting a war expalition．Of this family there are now 42.5 at Flathend arenery in the state of
 total， 96 l ．

Authorifies．－Homito llate，in L＂uited states Exploring Expedtion（whl．vi．，Philatelphia，1sti）：J＇，1．＇le smet．
 York，1sti．）：Tolnie and Dawson，（empuration forathe－ laries（Montreal，1×\＄4），Franz Buas，First（itmonl heport on the Indians of British Columbin：Brit，Ason．Als．Sri．，
 lndass of Nortio Amerma．

Kill－kiang，kyī kyang［litarally，nine river］：a depart－

 risht hank of the Gane－for， 4 th wewraphical mite from
 print at which the watro of the hath－blay jum the lane－ tow after their lasage Mrough Boyame Lathe：lat．2！te X






 The ehief imports are cotton and wowh goms．motals，and ondum ；and the dhef expurts chinaware，wras－choth，homp．

li．I。
Kiuns chow：the capital and dibef wity of the chinese island of llamas（q．e\％）hee alon llomow．
Kinshin，or Kyusulu［literally nine movines］：the most smothery of the four great inlads of Jam，salatel from the largest island ly the straits of shimmoneki．It ex－
 covers an area of 13, ita sq．mileo and is ranarkable for the broken mature of its womem cmas－lime．The highest menatain is 5,400 feet．In Kinshu were the powernd dai－ mates of Satama，Hizen，Chikuro，alld Higu．on its anthwest slores are the fronluetive anal mines of Taka－ shima ant karata．A trunk railway mow（18：4）starting
 will he eontinued to Kagnhima ：amd abrambline to Naga－ siki has hem projected．There are dive suctal ports of ex－ furt，opened in 1sed，Moji，Makata，Karatsh，Misumi，Kuch－
 of combl．
d．11．1hxox．
Kiwi，or Kiwi－kiwi，kee＇wi－kerwi：the native name for the＇Aletery（q．$\quad$ ．）．

Kizil－1rmak，kee＇zeeder－mak＇｜＇Turkish，lind river：the anc．Halys．：a river risige in the Komzi lagh of tha Hyas－ sus Chain，and，after a cirenitoms comme of wer motes． emptying into the black sua mile bla of smope lis larsent afthent is the hara suo（black river）or hastamomi Som，the Jelus of strabo．

E．A．（i．

 of Viemal（see majo of dutria－1lungars，nff．i－lo．It has large mannacture of white loal，an impertan trasit trade． and grond educatimat institutions，anning which are a then－ logical seminary for pricts．ant indurimalothnical，and mining scheos．l＇m．（1s：40）latati．

 1st！he went to Paris．where he pablishal a man－of his－ torico－phitical ways intembed to shm the powilility of a
 （iemman．In 1－6a he remed a position in the Anstrian Dinistry of Foreign Aftar＜，hat ruignal in isio，went th




 （1540）．

J．I．lieai．

















 coitizan，and cheted a member of the fellopal anmoil in In 56.
















 of maty－－
 stratum，and the milylatate of heal．Ite，did and to ul－






 at Berlin，lan，1，1N1：





















 Klapoth setted in faris，whange through the inthenes























 in the womblam armas of fanw，where he rapuly rase to







 and leth him there as wemern－in－dhief．Ifter the hepariare












 Dastony in lemer in $1 \times 3$ taking the same chat in the







 of a batillus of malaria．But subsequent investigation Whmontrated that the ofganim diemered be haverat was
 Ho relation th the disencis．Imong his publications are Hemelburh der pathohayisehen Andomie（e）wels．，Berlin，

 hrolinismus in thesterceich．ette．（l＇rague．18ir）．

## $\therefore$＇l＇．Absetrosg．


 under his father，then at Mmich mater Rheinderger．Wuell－ her．and harmam：pablishal his first emponitions when
 York in inal ；suctowded fohm White as organist of St． Franeis Xavire chureh，and was appointed tracher of the piano in the Mandatansille Amalemy of the sacred Ileart and Profosar uf larmony and Comberpoint in the National

 pham and viblin，aring ghathette a phand concerto，and


1）．1：Hervey．
Kleim．lumes lemobir：Aramatist：h．at Miskolecz，

 her studied medieine．lise did mot．howner．practice his frofosion．lut wrole a mombre of dramas which were suc－ cescully playel at many Geman thaters．As Klein was an enthosiat to ：utnime of shak－prare his phass Int ray in





 anmor a buk whith in regard tw barnines．thernghess，amb
 It contain the histury of the tirete and lioman drama，the himury of the latin imamas after（harist uf to tha tenth
 thry of（ha Simaid drama（a wis．），and the first wolume of a hising of the Finglioh drama，klein diow Aug．： 1876, leaving his sreat work nutinishal．
d＇til＇s Cionskis．


 the Dimbly army in 1736．He afterwate witered the army uf fredorick the dienat．and while stathond at lotstam
 him on in his fentie athomps．White in suxany during the
 mamate frimelohy．Ha Wis wounded in the battie of


 Wan expaty anduited at the limes．siume it expresed in a




Kleist, lhenricif, von: poet: b. at Frankfort-on-theOder. Germany, Uet. 18, 176 : was educated by a clergyman in Berlin, and in 1293 enterel the military service, which he left, however, after a lew years in order to stuly philusuhy and mathematies. He held several minor mositions in the Prussian civil service, but he lost then after the batte of Jenat Being mistaken for one of schill's oflivers, he was made a prisoner by the French, and kept in France mutil the following year. 'I'hen he went to Irealpel, where he became Theck:- friend, and where he publinhed the perionjeal Ihabus. In lana he went to l'racue with the intention of publishing his pamphlets againot Napheoth. This phan, too, was frustrated and he returned to bertin deeply hepressed hy the political misery of (bermany, and montally disturbed be his persomal disanpmintmetts. Mh shet himself Kov. ©1, 1811, at Wanser, near lotalam. Wespite the fact that Gethe turned with disment from kleist ${ }^{\circ}$ protuctions, he was a pet of extramdinary talent, who ham romtimally been growing in the estimation of his nation. As a dranatist he was certainly the most fowerful phawrisht after Lessing and Schiller. Ilis dramas-Dip Fimilie Schroffemstein (1803): Pputhesited (150): Der zerbrochent Krug (1811): Der Prinz con Homburg (1031): Die IIvrmennschluchl ( $1 \times 2 \mathrm{~S}$ )-are standard pieces of the German stage. His novets and stories. too, rank ammen the best written in the fremm language. Among then the novel Michuel holhans excels especially by the prower of its st yhe and the vividness of its descriptions. See A. Wibhrant,


 (188.5).

Julios (ioebel.
Klenze, Klent'se, Leo, von: architect: h. at Hidesheim, Germany, Peh, 29, 1ist: studied at lBunswick. Bertin, and Paris: traveled throngh Italy; was arehitect of Jerome bunaparte when King of Tiestphalia ; and settled in 10.5at Munich, where he became architect to the court. He built the Wabilalia (q. 2.) on the Danube near Ratishon; the Pinakothek, (ilyptothek, Odeon, Muspum. poyal palate. pust-office, eto, and a great mumber of private pataces and honses in Manich. Also in st. Petersburg, whither he was invited in $18: 39$, he built a great number of buildings, all of which are distinguished by something magniticent and stately. He had nusual power as a designer, and could carry on many important works at once, In a time when architecture was merely tentative, and all strles were being rather phayd with than any one serionsly tollowed, he did all that could be done to produce noble architecturat designs, though these designs were sonetimes marred by inferior materials, such as external stueco imitating stone. Of his writines, Aphoristisphe Bemerhungen (103) is an interesting look. D.Jan. 27, 1864.
herised by hessell stcrgis.
Klemmenes: see ('demmenes.
Kleon : See Cleon.
 ness]: a propensity to stual ar pilfer, which is athally or suppeably irresistible. Legal resuminitity for the ants committed under the bituline of this impulse is servernmi by the same rules as those which apply on the case of all other forms of insanty, and irroistille impule alone in senerally not a legal defense. see Lnanty before the Law.

Kliasma, kleatazma: a rifer of linsias: rispe in the government of Nusons, flows throush thase of Vlabimir and Xizhni-Sinverond and joins the Cka after it couro of
 through the mon denmely pepled and industrialty developed districts if the conintry, is of ereat commeretial monequence.
Klieqera, klitepe-ra, Virlaf Kiliufat: dramatiot: h. at
 medicine at the C'ivervity of Privue, and in 1-19 birame regular profesen at the gymnasima of Kriancio Itrathe. There he remained until 18.j], when he was apmintil praident of the academic gymatinm at l'raghs. Thore he
 a number of nowes he wrote wer fifty hramas, comemes. and tragedies, of memal value. The best of his mmonlieare Dieotrorng finbouk (The Wemberfu) 1hat) Kobterin cheerrohy ('The Fonr-cornered K), and hhit whth rond ('The Liar and llis Fanily). His best work is the historioal tragedy Subëslar', which may be considered a claswid.
J.J. Királ.


 has heen Obercmasintiriul-huth of lleeklenlsuresochwerin. He is the highest living authority on latheran fiturgie. Author of Liturgische thmodlingere is wh.. Schwerin,
 6i): Daniel (1NG): havelation (14it); At Matory of Deg-

11. 1. is icoms.

## Klikitat Indians: Set shanaprax lymass.

Kling'er. Friedrim Maximildax, yon: b, at Frankfort in 1293, and educated at the L"uiverity on (iiteren; wrote dramas for the segler band of strollinge actors: chtered the
 there to the highest jusitime in the military moninishation; became lientenant-gencral in 1811, anh dital Feh, en, 14:31. While in Erankturt, after his return from Gimsen, Kilinger behnged to the circte of goung writere who gathered aromud Goethe, and his trana, sturm aml lowng (1rith gave, in fact, the name to the new literary ora inaugurated he 11 order and Goethe. All of Klingers Iramas and morels written thuring this period have but the vahe of intoresting dowments of this great time. His lator writings ane mach more
 rerschiedeste fiegienstünde der IIt lt und der Litorutur. containing treasures of exprience and thomoht. See Mas Rieger, Klinger in der sturm- -und Iruny-pertiade (1sso): Shmidt. Lenz mul hhnyer (1sis); Erdmann, liber flinyers dram. Dichtungen (1-ia).

Jtaic: (inebel.
Kllish'nikor. Jis Perrovala: author: b, in 1810 on his father's estate in the powemment of Rharkne, Russia. He wav bronght up in Mosow, whre in 1se. hn was apwinted teacher in as selund, a pat he only hed two suars, ami then retired, to fullow in ecenpation exerpt literature. Ile harl written al number of [nems, hut in 1sis first finmid courage to semi four of them the the hameskit Aabludutel ( Moncow onserver), signel - $\theta$, it signiture he adhered to afterwarl. Thac sheces of his first efforts enemorand him t. make further contributins, which sum heranu I"pular. In 1539 he hesan to semp his verse to the st. Deterathers papers. and in the nest sar or two atmmber of them atbeared in the shoremennit (Contemprats) after which they arased entirely. lis last prose wirk was a commonplate story whiten in 1840. Klin-mikors prems helnug to the romantic school. and are hot characterized by any great. merit, though they have more than his nowel ilurefo (hirage).
A. ('. (1mLIMEE.

Klopp, Uxso: hintrian: h, in leer, Eant Friesland, wet.

 and contidant of King (inorese, with whon he went into exile : Weatne a liomam lathodie in 1sit: later went for revide


 at juhtigen hriog (14it1): Iner , it jeterigo hrog bis zum


 (1) mols.o 1s6t-4)。
('. H. Thilmer.

 at dema and Lecizig. He then became a trather in a pri-

 him for the purpore of finthing hiv trat rice furm, Vessiatt. While still in schulpfipto. as a gouth uf eightem
 whinh her firt wrote in prose and then turnel intw hexam-






 a- hand not beon haral in (i, riman petry sine the time of Luthor. The etfect of the Maseinh upnen liserary tane and
 A still ereater intheme upon his nation khantank exerted by the Gifes, his mont perfect pertie productions. In these






























 collem tav＂．































 fhat Pa，Huly













 j－rk．






 wont math to sombifio and nther literature，and edited
 li－hend a trambandu of indry：Misenses of the Mrert（Bus－
 tmericen in forland（1sib）；moll wher works．1）．in lham－

 Gomathy．in lits．Ihe studed，together with his hothor． Hhan Kichariah，firt with Rembmadt，and later with For－ Amand lond． 110 alka traveled in Italy to atmely the works of Thian and the（＇aracei．He soon gave up histome painting fir furtraits．On his return to farmany he painterl in Manthand in Numombers．A portait of a banker and his family，painted at llamburg，mate lis repmation at once．
 Laly warmakng immernsmbly his furtrats．lineller＇s sreat facility and urace immmataly attrated attention．Le was presented to the king．whormini－comet him to paint his portrat at the same time as lely．Kinder presented his alramly timishol whila 1 enys was maly skethed in，for which the wat gratly praisal．Ilis immone surcess and the in－

 many commissins that hersad only to paint the hemand hands of his sithers，leaving the atersoories to his brother and a hand of pais．Charloe 11．sent him to Paris to paint
 was rearminted to the oflice of cont bather ly James H ． and later ty King William，whornt him to llolland to exeme a pioture of the flenipurntiaries assembled at hys－ wiok toennclude pace betwen Frane ant Enghand．Quen Ame sat to him for hor picture and apminted hime gente－ man of the heledambr．He also painted Peter the（ireat anll the dreduke＇harles of Austria，for which be received the tithe of hereditury Knight of the Empire．George 1. confored a monetey on him．＇lhese homers，and his insa－ tiahle lowe of mome，malle him careless of his art．Ilis arariee promptol hom tomake nse of bery inforior artists to tinth hio works．It the time of his dath he hat 5he por－ trats in hamb．His fame greaty exereds his merit． 11 is coloring，thengh hrilliant．ز＂wercomventional，and all his
 athe lo gran port mat－panting．13．at Twickenham，on the
 practicel his art in Vherlaml．

W．I．Sthlmax．


 Wat for a dom time in the arms．and for many yars in differnat hamelne of the wivil sorvice．He was a prolitie
























I．C＇（＇nolucie．





ment from which he neser recovered. D. Aug. 20, 140 , it Konskawoba, we of that wates of the frinct. The transhatad
 his own peotical jroduethons there are many inty andminme prems of a deacate beant $y$, buth in wniment and linm. Ile Was alsa the author of seroral lramas, amoner whichare The


Kinght [M. Fig. < O. Eng. cniht: O. 11. Ferm, cneht >
 knecht, servant]: a man-at-arms serving on horsebate ambl pledgal to pertorm erpain honorable serviees, sued as thome performed by tho andite of Ronne. The word anronpume. ing to knight is in most lamonages derived from the worl for horse, as, for instame the Fremeh chombior, tho loanish
 sociated with ehivahy, is of Northern origin. A mertain value of land. called in lioglamd a "knights fee," and in Normandy " tief de hautiert" was allotted to a twant, whan in return bound himself to follow his lond to hattle: Thas. in its carlier cays kuighthoml was but a part of the foulal system, and could boast little of that noblemess whid afterward dintinguished it. Its real history becrins witl the ramsades. During these wars it assumbi a volmatary charmoter. The younger sum of mble families onlisted umber thastambards of wealthy lorels, in whose service they might hoge to gain such honor, and wentrinhes, as would raise them for an equality with their elder hothers. Fvery knight was prormitted to carry a pemmon or panted flag upon lis. lanme lant as a reward for gallantry ur military fuwpone has homored with the privilege of bearing the banner or square hage and in this case was known as a hanneret, while knifhts whathat not won this distinction wert termed buthelors. The binnerets or knights bammeret hedd a higher rank in the tomblat army and commambed larger dibisions than the barhelors. During the crusables knishthoml became blended and almont duentified with relimion. Fivery khirht pledged himself to aid in recovering the holy fand. Fighting arainst infidels was itself a religions service: wariors who died while waring the cross were assured by priest amd pore of a pordy entrance into paradisw : "hivally was held to be little lower than the Charch itself, and the two were united in the persons of those monk-soldiers who, while under vows of purerty, chastity, and weelinnee, were also foremost and fiorcest in battle. T'heir deeds, howner great. were suppesed to increase not their own renown, hat that of the order tu which they belonged, and it may be that sueh derotion to a conmmon interest had some influence over secular warriors. and aroused that esprit de corfs which male knighthomil a miversal brotherhool. Amither peculiar trait of kniehthoond was courtesy toward women of is own rank. Wommer gatr the prize in tourmaments, and the knight wore his mintross favor in real as in minate lattle. Freman junce chivalry with discriminating harshatess when he says that "while it is bound to endless fantastic comrtosies towaml mon. and still more toward womed of at certain rank, it way treat all below that rank with any degree of reom ambl "ruelty." Burke, on the othar hamli, in a woll-kaown pa-sage owak of it as "that sembibility of primeilh. that chantity ut homme
 it mitigated fermoitr, whioh emmbled whatevar it fudehml, and under which vice itnelf lome half its evil hy lange all its grossness."

Varions mamale werw writton, esmedally when chavalry was on the decline, formeh kuightly daty. hut wir mont






 tives of their formation were las sight of, and their jowner






 of Rhodes, amal then Nalta, whence they were expedled by
 for the protection of pilarims. \&raw estromaly rich, and aftor quitting Palestine had establishments in aeroral formpean
(anntrjos. Having hem ancomed of heresy and other erimus,



 the chase of the twelfth wenturg, deynimel great prown, athl
 ( immban from their hathern whels. (For further infommat

 of (ompostelka wat fommand for the lefanso af pilorima to the shrinu of that saint, and the kaiorhts were centinually +mgated in warfare with the Momes. Many wher ombers were foumled which nown podeled any hiatorical impurtanee.

 maires. lavienl hy (․ K. lidas.

Kuitht, ('harles: bublinhor aml anthor; bo ad Wimloner.



 self with the Society lur the lbifunion of Laful Kinowlodme. As its agent and priblinher he may lee sam to le the foumber
 which has done so muchi th speat valmable information amoner the middle and lower clasots. Amomer his entorprims of this kind may bu mentionci the Librury of Entor-

 (1sist). ITe was an imbustrinse emmpiler of books like Motp Honers with the Best Aluthors, Ithe Lomed we Lier In. etti.: Wrotes. among rother things, a valuable Pichorial Mistory of England: and edited a Pictorial shahsjeate. In labille was appointed publishr of The London Ciuzette by゙ tie (res.


Koiglat, Richari Payse: muminmatist amid ambamberist:
 in 1 IT1 into prissession of a hampomm furtune, which be biberally empured in the domation of a mique collection uf anconat coins bronzes, and objects illastratiner the pagan religinns of antiquity. IFe wrotw a curious work entither an Aremunt of the liomaeizs of the Worship of Irimpus lutely reristing it lsermin in the hingtom of Difles. to uhich is
 wertion with the Jystie Therslogy of the streirnts, which he privately printed ial 1 NG, ami for which he was seforely criticined on the newte of delioate. thourh at the preant day
 Knimht" trostine was reprintad in therant stye in New york in 1sit. lle was for many years a member of Parliament and trustere of the liritish Xheman, to which he beequeathect
















































## 


Kinighk of lator：manhersuf an asaciation formed in




Kinishts of Jrthias：a fratomal asentiation fond


 charater i－permitted whin it．Toderation in religion．
 dimal prumiples．Tha early erowth of the crice was not




 of knisht．The objeet of the entownent mank is to farnich



## 



Knight Tem＇mar，ar loar Suhliers of the Trmple of Solomon：a military and rolizions order fommen in 1118

 ter worn in the palate of the latin kinas knomatom as



 innosant randlat with the momios of Chrithatity．from



 a pebtury and a half thoir hithry watmot rompately

 lowe of the llaty Lamd（rent ther armpand cymas．Their


















## 








＂rphan＂ 1 lome is $1 \frac{t}{2}$ miles $s$ of the town．Pope（1sso）

 Emone of＂banem．＂


 of lamamandis．It is the ernter of the blackeral requon of


 Mibater，fermany，bar the and of the tifteent tatury adpted in sweden the dectrimes of the Amatatises，and，




 W．ing promamorl king．Equality of property amb commu－ nity of wises were among the cardinal doctrine of this mad asomiation，which startlen Lather，and was be him de－ numatel in the aromgent terms．（In the surpression of the
 duath，after frightfal tortures，Jan．23，1．：36．
hevisel ly W．H．Whitsitt．
Knitling［derix．of kmit＜M．Fing．buillen＜O．Eng． my／tom，knit，lit．r．，form into a knm，leriv．of cnolla，knot． see Kiot $\}$ ：a maner of weaving of twisting a single thread into a kind ef ath hy menus of stenl，ivary，or wooden im－
 ons sizes，arorting to the limmes of threal usen and the tightmos of atitels required．Kiniting is a far more motern invention than its kimped art，netting．Many antigumies athim that knitting was insented in footland，and thence in－ truluend intu France：others say that it is of Spanish origin． and was first known in England in the reign of llenry Vifl． lut in at rate colle etion of the ade of Edward Ci．is one

 hatters formed themselses into a orporation，styed Com－ mumati des Matres Bometiers an Prion，choosing st． Fiace for that patron．
 Ashbs，Northamponshirr，Wighend，athout 1od3：grahuated
 feblow：was apmintal heal mater of the From（irammar

 of l＇amben：－Brfomin is prestred in the Ashmolean Ju－ senm at（oxford ；hat the only work for which Knolles is now remembered is the finerall Mistorie of the Turfes，ete． （folia，160：3），which was reprinted in 1610，16：31，and 1638 ．
 finmation ly sir foul liyeant．This lnok was commented lig Dr，olnhism in The Gitmbler（No．109）as＂dieplaying all the exerllene that harration can almit．

Knollys Ifasemn：frymam；h，at chalkwell，Iin－ manhire，Guglamb，in 1ats：was edueatod at cambridge

 Fingland．In buston ha was caty involvel in a controsersy with the amhorition and wis afterward maned by cotom

 l－hand，and in 1641 retment to bomben，wher he was for a
 11．was a man of lahd．geheroms，ami liberal spirit，an ac－
 ymutl．He write i flominy Fire in Zion（16．4i）：a small




## K noppero：sion learame．



 1hn baminh tampaign if Ix m，hy a sweelish Volantecr．

 diden the has poblinhed a consiburable momber of nowels．

 Latsnugy i hemmed（Ifome Rearling）．

1＇．Groth．

Knot [M. Eng. knotte< O. Eng. cnotta: Icel. knütr: © H. Germ. chnoto $>$ Mod. (iern, knoten]: a twisting or entwining of one or more pieees of eord, or of the strams of a rope, or the looping of such eord around some ther sub-


Figure-of eight Bowline knot.
knot.
stance in such a way as not easily to comes ajart or to be disentangled. Knots are of especial importance on shipboard, and much shill is required in the adjustment of some of them. The number in ase among seamen is very great; among the more common are reef knot, firure-ofeirht knot, bowline knot, running bowline, Nathew Walker knot, manrope knot, and rope-varn knot. In reference to the speed of a ship a knot is one of the divisions of a log-line, and receives


Running bowline knot.


Matthew Walker


Man-rope knot.
its name from the knots usm in marking the line. Fach of these divisions bears the same relation to at natiteal mile that half a minute does to an hour when the half-minute sand-glass is used. Fach knot or divisinn represents a namtical mile. Hence when a vessel is said to make 10 knots it signifies that the sperd is 10 nantieal miles, or $11 \frac{1}{2}$ statute

kinueyarn knot
miles per hour, one natution mile being eaual to 1-1.s statute miles. In foint of fard the length of a nantical mile varios with the latitude. 'She L. S. Ifybrographue oflice, how-
 6.080.27 feet as its constant lemeth. That inlopect by the British Almiralty is 6,080 turet. Sor Jom-LINE,

Knot, Graybark, or liobin-snipe: the Tringa canula, a sandpijer of the Athanter const wf the C.s. and of Fimroue. It
 birds in somson are fleliojnme for the table. The place of breeding of this bind is unkinown.

Knowledge: This turm includes the poseresins of the
 tion, refleetion, understanding. and berolation, in sufar as the same relate to truth. It shamhl he diatingrivled from mere feeling and from "pinion on impreadon, Kinnwlenden implies the exercise of discrimination and companison in re.
garll to ileas, moting their ayrument and disagreement.
 fications of the feeling subject, thare buing only a rudinmontary antithesis of subject and ohject in if. W'han the Ean
 tion takes the phate of simplo ferling. luference incomplanies all gratas of knowing, although it is morely impleat in the lowest stages. Jomore all kinnwledge eontaine the results


 11. Suint or Human Mind; [11. ]'ure ldeasur (iemeral Prinriples, common to nature and mind. Kinowlerlge implies conviction ratached by the pereation of sutli-ient grounds. Certitude mast be dintinguindme from truth, as a mere phane of it. It appertains tos the immerliate orexternal, and lemee to the phemmenal or trausitory. Such kow shledge is is terived from certitmbe or immediate kmowing lacks, therefores. the unity uf system, and is jartial, meraling modification in eath particular through other partionatare and thromgh the whole. Inasmuch as thare is unity in exi-tancer datural and "piritual, an isolated knowlodge of partienlars is not a true
 ent, each one being comditioned by all nthers. a true limonl-
 In seimere eath thing or province of things is treatel in its relations to the others and to the whald. J"hus, hey reason of the relativity of Iartioular existences a true knowlerdge of them mast deal with rulations, and in this stase knowlodge may the called relative, mot wherome of its imadequatey, hit rather on aceoont of its truth. 'Jhe " relativity
 since the tima of the sionlists of (irmere. It has taken a subjective dirention in mudern times. It has leen lemel (a)
 istence in itself ahonlutely, but only in its mumes: (b) that it is relative, hecause we ean know inly what tambs in relation to our faceltirs ; (c) beranar the sulijeetive constit ut bon of war furnlties able elements and monlifiothons to the matter deribed from sensation. Thesuphition* have been generalized in the doctrine of the relativity of kinowledge based on the tenct that we know only phomoniona, amd not " thinges in themselves." Kinowledge has been further classified ateording to its origin in the gachonderical activitios: (1) the
 eursive-inference atal generalization: (a) the - peculative-
 arise varinus distinctions, such as a priori, a posieriorl, ab-

 Psychology.
W. T. JARRIS.

Knowles, Thmes Sherman: dramatiot: lo, at Cork, fre-


 gow, without attaininer emineraco wither frofescon. $11 e$ hat writter fomr or tive dramas which hate hat bern prom arred, am? han pothlinhed a emall volmme of flatitive pre-
 dinction of C'aius firacelus at belfant. In 1se0 b'irgizius


 ducod forrteen ot here tramas. In $1 \times 4: 3$ hiv Iramatic Wortis

 seruphas, devoting himsalf tu litwature and in lat was

 jous farbor. His list yeare were jased in retiremant, wh






 - Inlen of l'racild (1-10); all Muids (1)|l): The liesse of


Knownothinss: thp mame applim? to a eneret fulitiasl






















 （Phladophisa，I vitio：and Dated the Kion（New lork． 14．1．

 Luthmary War：wan promat at the batte of bunker llill．
 phatert in cummand of the arthery in Xisw York，took a


 arm．In the bathes of liandewine，dirmantow，and Hon－ math the artallery muler Kinux bere a hading part．He Wa，at the hath in Vorhtown．after whith he Was mad．


 guired an formon lamhed fotate．and thatly sethed at
 and form spondene by lranciss．bake（Bamon，wit）．

Knos．bons：ruformer：be at bifforl．Rast dothian， Sathat，in lata；was odurated at Madtingon amd at the

 anthority to kines and an dequat kinco or put them 10




































 him top pan throngh her dominters．

 frimas of the l＇rotestant party．Ilhey emrieal all hefore








 from Framed．burine the win actre that followed．up to the time of her inmermand at lanheven Casthe the rela－
 a paralled in hotory．The at rength of knox elepmed upon
 ar fulition！！nsition．Il：was loyal．bat it was the loyalty of the bendine yurit of the lrotesant mowement to a quen
 for extirpatine Proterants；the logaly of a man who be－ liever in and partion the shmer whe to a queen who With discruardfal of theo．His lovalty largely manifested itself in what he resudul as faithoul reboke and restrain－ ing intlance．The dramatic rephts of historians as to the interviens between then are domblase to be taken with muth athwance．Kinex let is shmy life，amid threats，
 maned fearles and mharmed．The times were not less stumy for him or for sod hand luring the five years that followed the commation of Marys successor．Ile was stricken with apoulexy in Oct．，hiso，hut embinued to work， prach．and pubidh till a fow liar before his dath at Edin－
 10．5），and The Horks of John Gnox，wliteil by David Laing
 of．

## Reviselly W．J．heenfr．

Knox．Joms Jay，LL．It ：fimmeter；b，in Knoxboro， 4 mejla co．，N．Y．，Mar．19．1xes：graduated at llamilton College in 1449：was a private banke or an oflicer of a bank matil lat？，when he receivel an allointment from Secretary（＇hase，and suthenuentiy hat charge of mint eoinare
 appeninted deputy comptroller of the carrency：and in 18.0 his two reports on the mint sumice，turether with a codifica－ tion of the mint and enimage laws of the V＇．S．．with many im－ portant amentments，wew pmblished by order of Congress． The hill whith he propued was subsequently gasxed with a few modifications，and is kumu as the Comare let of 1873. In 1sio he was apminted comptroller of the eurrency and held oflee till 1sh4．When he resirnmbat became president If the National Bank of the Kepolbic in New lork city． His reporte phlished hy（ongrosematan historival sketches If the two banks of the［ $0^{\circ}$ ．S．and of the state and national bystoms of bamking，and statistien！information of banking and arrmoy in the（T．S．，from the earlest date．De pab－
 and loft in MS．a histmy of banking in the L．S．W，in New

Knox（＇ollege ：a nom－sectarian comanational institution of lamine stuated at dadeamrg，III．It was foumetel in 1sill，was fully orgamized in 104t，its first class graluating in 心il！．From that date until 1 sit ite gramates have nom－


 maldinge ate valued at shon，om．Jha II．Finley，Ph．D．，










## 

 fo minty，we mat of lowa，ref．6－11）；an the（＇hi．，Burl．
 mangergion：hat wheq stan and timber in its vicinity；


light plant．watar－worko popular 1－mile race－track，：and：3
 2， 86 ？

Ehtur of＂Fixpress．
Kaoxville：dity；capital of k゙mos cor．Tenn．（for luca－ tion of county，ste map of Thmossed，ref．（i－1）；on the Ten－ nessee river，which is mavigable fur stembnats to this fuint． and on the E．Tomn，Val and Ga．the Koms．and Augnta． the Kinox．，Cumberland Gap and lamisr．，and the Marietta
 of the most important inland aties of the suth，is in a ribh coal，iron，and marhb recgin，and is a large wholesale trahb center．It contains the University of Thmesse，Kmos－ ville College，Tennessee beat and Dumb Schonl，La－t＇Tin－ nessee Asylum for tha lusane，I＇．S．fovernment builhing （cost 5000,000 ），comrt－hemse（completed in 1ses at at come ot S？00．000），the Lawson Ma（ihe Mrmorial Library（4．000 wat－ umes）． 35 churches 5 national bank with combined capital
 daily， 8 weekly，and 3 monthly periodicals．The census re－ turns of 1890 showed that 20.5 inanfacturiner establishments （representing 49 imhetries）repurtent．These hat a com－ bined capital of $\$ 3,04,661$ ：mpllored 3,113 persons；paid $\$ 1,662,501$ for wages and $82.454,24$ for materials；and had products vatued at sione0．116．The manafactories inclule cotton，woolen，marbla，Hiour，lumber，and rolliner－mills， foundries，car and car－whol factories，tameries，and fumb－ ture．soap，stove，and wagn facturies．Pop．（1880）9，693； （1890）22，535；North Kmoxville 20．2n：South Knoxville 1，224；West Knoxville ？．114；wher suburbs 8.1000 ．

Emtor of＂Journal．＂
Knut，or Kund：See Concte．
Kuntsford．henry Tutrstay Iullayd，Barom，P．（C．． G．（．M．G．：statesman：b，in lombon，Englamb，Aus，B， 182．）；was educated at llarrow and at Trinity College．©im－ bridge：graluated from the latter in 1845 ；was called to the bar 1849；survel as member of parliament 1sit－ss： became vice－president of the commitee of conneil on edu－ cation 188．9－ 86 ；was appointed secretary of state fin the Colonies 18si－9 ；rose to the perage in 18ss．（ $\quad 11$ ．T．

Koa＇la（native Australian name）：a curious arlureal mar－ supial（Phaseolarctos cinereus）of Anstralia：locally known as the native bear or sluth．It is abmt＂feet in lengtli， tailless，stoutly built，and clothed with thick，ashy－gray woolly hair．In the fore feet the tirst and secom hligits are opposable to the remaining three．in the himd feet the great toe is opposable．The animal is nocturnal in habit，an！ brings forth a single cub，which is carried for some time in the pouch and afterwaril on the mother＇s hack．The konalit is related to the phalangers，hut is placed in a seprate fanily， the Phascolarctidre．

F．A．Lects．

## Kobe：See Hrogo．

Kobell，Frayz，won：1，at Munith，Jaly 19，180：studiol sciences at the University of Lambhut，and became Profosor of Jineralogy at the Unimorsity of Mnnich in 1826，whero he died Nor．11，1ses．Bong an impassmed humer，ho came in close contact with the yural life of the bavarion Alps．of which he pisus charming pietures in his writ ings． Most of his poetry，liko his dralichte in wherhaypisenter．Mum－
 vo＇Finsteructld．Der schmerze leill．＇s Fronzner－hespi （ 1859 ），Schnallahipth und（ipsethichth（1502）．is written in the dialect of that listrict，and must be comuted among tho best of German lialdet－pnetry． Jeliles（foribel．
Kobo－Daishi．kitherti－shé prient．sculptor，and scholar： the inventor of the Mimona，ane of the twa bapmese sy－
 mingled the ductrins of Shinto with th．Buddhism intro－ duced from the West．the serls of shinto being to him nothing more than trammigrations of the Pudalist divin－ ities．This was really the ahomption of the ancient roligion in the new．His personal namu was kinka，kohn－baishi beingr a posthmmous titlo．
．ग．ㄱ．1）．
Kobold．Germ．pron．kähalt［ $=$ liem．$<$ II．II．Gemm．

 of worls emding in－oll，from lat．cobulus，gublin，＂rom（ir． кobados，impulent roguel ：in firman legembs a kind of elf which in some places was beliewed to be attarluyl to some particular house or phate．In wenemal．the kibluls were beneficent，but some wore matheivas．They particularly haunted the mines：ther were little：Jee replit when and women，dressed generaliy in miners chothes．They heaped
 dreaden to the exal he men，hoy were fond of doning man－ kind fawor in areret．








 his important stuly of the ath lowe of tramatic infertive


 monestigations of anthras as well as thene he hal hem mak－ ing with reference to the camso of tubrembaio．In 1 seo ha amounced his discovery of the tuberele bacilas．The diflicultion enemantarel in reathing his comelusions wre numerrus．It was neersaly to invent new microsenpical apliances and new mothath ol taining specimens in order to make thase microntranisms visithe，thas making an im－ pertant an vance ha miansenps．

In trea Dr．Noch publi had a method of preventive inmon－ lation arainst anthrax，and in that yoar was sut by the tiep－ man Government to Exypand Inilia to investigate eholera． llis studius resulten in the diownery of the chalera spiril－ lum or comma bacillus，the presman of which is aremerally rogarded as an infallible teat of the character of the mis－

 and was presented by builative atct with the sum of loll－ 1001 marks．He went to liratee in tena as a chmera com－ niminner，and in that same year was alpmintal professur in the melial faculty of the University of leerlin．director of the Prowian boaril of health，and dirmetor of the Hygienic lastitute of Berlin．la fsis ha publinhed a pater on the prophyaxis of infectious diseases in the army：this was whhly discussed in European military cireles，imil susenomd impurtant reforms．At the mertiag of the international medical congress in temo Ir．Foch anmoneed the discovery of a sulstance which．botlo in the tist－tule and in the lis－
 T＇iberctis．）The annoncement equated a great stir，but subsequent experience dill mot supprot this claim as far as the treatment of man br this sulstame is comermed．
Tha titlen of Ir．Kineho published with ate as fullows： Für A－tiongie des Milzhombes（1sion：lintrisuchumgen




 turheilung und medicinisphe Kunst（1．elpais．1s，$)$ ：Wreitere Millheilimgon über cin Iteilmittll gegen Tuherentuse（Ber－ lin， $1 \times 19$ ）．


 fimo as a bankers clerk hut som turnell to writing．Ilis firt probuctions（ $1 \times 14-16$ ）ware in the finlod of molondramas
 his nwa papunse foumd few buyera，but with his secomel．


 the latter part of his life are mandored inferim．Amone



 Was the valgar one of the common peple of latis，amb the




 alsor a novelist ama a playwright．．（i．Cinfield．

Kollak Islaml．Alata：sem Kitura．










 and firloutir llaplin，1～4）．













 woth cotitwe bathous．

Mabk W．Habrivatus．







 is chatefly fanme for himeknhe of sillate life．in which he



































 at a


















 hafred（itoman．
Kohl－rabli．hol mathi $[=$ bicm．，from labl，camblo rape




Lat．cupa，in monning equis，to（Germ，riblo，bed，lurnip］：


 neath，as in the turnip．It io cultivated in the U．S．，hat is ration math mone estensindy in biarome and is prized for ratter and for table ane．It cultivation is the same as for the mathage．lievised he I．It．Balley．

 rameh，frefreme of fhysiss ath was alucated under his father＇s－uprsision at the Pellyeduricum at Casel and at
 Lusy hersined his father in hise resarehes．Ater the wath of the wher kohlransh friedrich beame a stulent of
 l＇ju．I．at that institution in Aatio．After graduation Kohl－ ranch wa－smownoly assistant at the astronomical ob－ sorvatory in diollingen，in the laburatory of the Physical
 He was Praferom of Physies at the Zuriel Polytehnienm
 Wïraburg until 1sw．In that bear he sucereded Kund as divector of the Jhysical batwratery at st rashorg，and still hobld．that forition．In ahdition to many important papers
 and magnetina，Prof．Kohlratech is the author of one of the buat－known mamals of jhysical laboratory practice．This wark，ontithed hitfulen der prakischen Yhysil．appeared



E：3．Nomols．
huhbinath．Whamem Frmbrin：electrician；broher of pryidridh Ki，hlransh；b．at larhurs in 185：：was edu－



 of＇thenetian Ith－iल in the Cniversity of Strassburg：




B．I．Nienols．
Koh－Sabap Chantibur，or Chantiburi ：a port of Siam， the armal in infortance in the combly：an the amoth bank of al small riwer，near it momith，in the linlf of Siam， 150
 hat an armato and is moted fur its shiphailding indusiry
 mom－forwanl，dyments，ship－timbrer，hides，horns，and ibury．In the brinit！the te are mines of fretions stones．


Kisil：a dity of the Kopthwo J＇rosinces，British India． ． 1 ，111．3kII．
Koham．ir liohand：a city of Forpham，Anatio Russia．














 of Mongolia which lies F．of Chinest Turkentan，N．E．uf Thbet，in whifh it is sometimes inchumal，and s．wf the Chi－ nese provine of Kiamedh．Which separates it from the reat of Mongelia．Its northern homblary is the Nim－shans，an eastern fxtension of Altin－tarh。and itzomthorn the bay an－
 numbers about 1 G0．000．montly＇ramputans，a combatiwn

 and straight or atuiline nose．＂There are alon a liew Mon－ gols．The bulk of the population is fasum！to．al the lake （Koko－nor）from which the provimo take its mame proh－
 Which lies luwarel the northeast corner of the provine athat stands 10,600 feet above the level of the sat．hats a domome feremee of from 200 to 240 miles．and an area of over sq．miles．It is rallet？Troo－vambum by the Tibutans，am！ T＇sing－hai or＂Azure sea＂ly the ！hinese．Near its＂ast－ ern fonl is an islan！with a circonit of 6 miles．which is sad to have been aroped from the skjes hy a gigantic bird． upon the spat from which the waters at one time issumed in such quanfity that they threatened to submorna the world． Water－marks on the cliff：at sme listame from its presint shores show that the lake was formerly much more extern－ sive than it is now．
li． 1.
Kotkra，or Cocus－wood：nopmar name of the Lafith－ stachys roxburyhii ur Aporosa dioicu，a rather small 1 ree of the East Inlies．family Ehphorbineer．＇The dimber is crorg hard and of a rich，handsome brown eotor．It is impurteti， and used in makine flutes and for ornamental juinery．

Kóla：peninsula：a vast extent of lami in Sortlern Russia between the White sea aml Arotic Oceats．The Kola river amb a sories of lakes almost separate it from tho． mainlant．It is rocky and full of rivers and lakes，1．14．of the lattur being known．It is covered by a pine forent．and inlabitem by a few hundred lapys who livo by fishine and by rearing reindeer．On the sonth coast there arratiow Rassian vilharas．The salmon were formedy extremely abunlant，hut have been nearly exterminatel．\＄1．W．Il．

Kola N゙ュt：Sbe Cola N゙ct．
Kolaphr＇［native name，liter．，city of the liuls；of．Sanskr． purn．city］：an indeponlent state under British protaction， in the Preadeney of Pombay，partly in the W stern fibats， partly on the table－fand of Inecen．bordering om the Kint－ na．Area，2， 16 sis．miles．1＇op．800，000．（＇apital，Kolitpur．

Kolar＇：a district and town of Mysore，Nomthern Inulia： on the rantern edge uf the 11 ysore table－land abjuming the Fastern Ghats．Area， 1.801 som miles Dops．fingomo． The distriet is hilly and dry，but fertile when irrofatul．
 and ghi，Iron ore is smelted in considurable quantities． and gold has luen discovered in the muntains in than moth－ west of the district．The town is 40 miles E ． S ．Fi．of Bangalore，and 10 milus from the railway from $\mathrm{H}_{\text {itllas to }}$ Bangalnore（ser maty of S．Imlia，ref．b－Fi）．The silkworm is
 N．WV．Jlarkiviton．

 beeame tutor to atoumg humparian mombeman，with whan



 of the bohwmian thater，abml later the lablomian Sitional theater，shakipuman homos buiner his buot rotus．Pho sides a mumber of mondel mandations from thati－peare， Goethe sebillur．etc．．he wrote the followine atiminal





 （The Threqs l＇haraobs）：and Jheite mi ramurne（lail）．six solames of his nowel were jmblinherl at l＇rashe 1－ist－6j． IIe lives at Jrasum in retirement．
．1．．1．К8．it．
Kollár，kinhaar，J．N：poet and heradu of Panslaviom：h．






 chief work is the sliery there（alavan banuhtor），dirat lats－
















 Slaters（l＇aris．1s！ 0 ）．
．I．J．NRif．
 gist and uaturalin：：W．in \％urich．switzerland，Iuly th，lat？；
 \％urich，sulnequentlystudying in linnomblorlin，where J．


 Zurich：the sucerendine two years le wat extrandinary and


 into brumbence as the fommetation of patholney and clinient mendicinte．Jn pursuing these othlina embryolngy and com－ Parative anatomy engaged his attontinn，and he did muth urigital work in buth of these sulijorts．Amonigh his worke
 that laasol throumh a momber ol editions，and war trams－

 merlitime．
s．T．A1：MーTRON．

## Kolmar ：See Comark．


 wh the I＇ruth，at the font of tho f＇arpalhian llonatains （see man of footria－llumary，rof． $\bar{y}-1 \%$ ．It is fammen for







## 




























 A. C. Comathat.







 Limi), for atumt the math of Athat (of (olmer rixer, in lat.


 ka, stahkin, Tusibl formerly suphenel to Delonge the the




 ambl ho hath amb feet are small.
With the "awption of the Tarish, the Kolumath tribus










 combiluted math atraner that thas of bown relationship.
 tail in the Kidusthan family. The pincipal fhental divi-
 thirtern mans or monte. Withent refermee to thair phratral or equtile wranization. all the hative kolusehan are



Marriag is promitten inly bet ween mambers of different chans. Pilyerany is miveral, and doment is in the mat termal lime finmery shane wore surition on the death of at ehoff. in wher that he miaht le furnisholl with sorvants in the other world. Inalta, injurter, athl iew marder may




The dithine of trina formerly worn hy these tribes has




 of the mase pieveref for that purgese. The loblus and rim of





 are thenw into the sut






 tranformed into wher haman homes. whetly relations of
 Alatmanima in praclio. 1.

The I"pmation of the varime trilue of this stone is as









 Hew (Montreal, 1s, 4): Buma, heport on the Trethes of Brifish (ohumbin, ill hepurts of the British . Issorialion for the . Id-
 Xiblack, The (emst Imliuns of shuthern -thosha and



F. W. Homes.

Kom, or Khat fown: in the provine of Irak-Ajami,

 Thu aliatrict in whish it stamis is wery fertile, and its position on the road betwen Teberan and Kashinges git considerable combureial imprance. of still grater intluence
 to Mehhell. It contains the shrime of Mamma Fatima, inchowing not only her remains, hat also thoset of 444 uther saints. The shribe is anmually visited hy thensands of dovout pilerims, and the "ity is, like kerhila, a favorite place of interment for the faithful. Indeed, the dirst impression which the rity makes is that of being a huge cemetery. Pol. estimated at 2 z., 140.

## Komorn: Ser (bmors.

Kong: an whin in the Mekng river, Siam. See Knong.
Kone Mannains: a mane long represpated on the maps as strething for 300 miles ${ }^{\text {waralle] with the north coast of }}$ the (iulf of Chumea in Nombern cinimea, Nest Africa. They were accepted as existing on the reports of Mungo fark, Caillie, and Buwditch, who hal not seen them, but had heard of them from tha mative. The Frenche explorer Binpor (10si) was mable to find them, and they have been expungel from the torst maps. Where they were sulpersed to he is an extomed flatem surmomed by hills and ridges, some of them of considerabla ale vation. They were sup[unsul form the water-parting lat ween the coast rivers amb thon of the nupar Xiger sistem, but the water-parting is foum to the much farther $\mathcal{X}$., giving to the coast rivers mueh more imbertane than was formerly assigned to then as drainage andelies. Binger was the first white man to visit the townor liong, an agylumeration of adobe Imiklings, with abwat es,000 prymation, doing a comsiderable business in irory, cofton, salt, and nation iron gome. C. ('. Anams.

## Kongo: So dfrieas langipabs.

Koni. Femor Alekeevinl: writur: h, in Moscen, Russia, Mar. !1, ista. Whough he studied medicine he felt no inelimation to pratich it, and fried barions ocempans till 1sts, after whicla he gave himself witirely y, ta literature. It, hat waly compused short poems, and in 1 sis proluceld his first vambeville, Zhenith po IMmeremmsti (The Bridegromm by substitme). which met with sueh sucess that it letermined his veration. Of his thirty-fur vauterilles ( 4 vols., St. Petershurg, Inio-il), fiftere are original, the rest alatithons ur translations. He also wron a hife of Fred-

 work. Kenis lyries are mot withont merit. Perlaps the

A. C. Colmge.

## Konieh : Sol losmm.

 Fulha: hald lifferent amall whices in the former clectorate of


 the hast of the carly representatives of the historical nevel in firmany. Amang the great manher of nowels whicls he wrone there may lo montiond here Die hohe Brant (183:3):
 (18.7) : and Williom, shutraperer (1850), the last nowel heing Hin of the best attempts in repmenting pentiently the great Enctioh pere.
dubies (forame.
Königgratz, kïn nigrefs: a fortified town of Bohemia;



 vilage of that name in the viemity. The rampaign of Kïnigeraicz is une of the most remarkahat military movements in the refords of nowlerth warefare. Six weeks suftiend fur the I'rassian army to cut off the hamerians from
the Austrians，to semd the saxon foreres full retreat，and， after lebivering the crushing how at kioniggriatz，to prene trate nearly to the entemy＇s calital．＇The war was termi－


 tress of first rank；situated a molles from that baltice on the Pregel，whose two arms，the ched and the mew l＇rogel， unite within the city（cee may of Grman limpires ref．
 the provincial govermmant，of thestati of the Firat Army－ corps，and has a numerous garrimen．It cumsiot－of threer former towns．Allstalt，lühenichat，and Foneiphof，whinh in 1724 were united into nne rity．It is mot a handoome face： the streets are narow，athl there are few comalicumas haild－ ings．Altstalt is the aldest part，and contains the palace anil the town－house．＇Thy phater，with a towne st meters high．forms an ohlong sibare and stamds nearly in the cen－ ter of the city．It is rimh in historical remblect inns．It was fonmded in 9205 by King ottokar of Buhnomia；berame the residence of the grand manter of the（ierman ordere in 1466 ． and in 1525 the residence of the Juke uf l＇russia．The east－ ern wing was built in 1532 by lonke Athreeht，the sonthern in lojel．In the chapel，necupying the western wing．the Elector of Brammenhurs，frederick 111 ．，crasmed himstolf， Jan．18，1701，as the first King of Prussia，umder the name of Frederick I．In the same hhace Willian I．，afterward German emperor，was crowned as King of lrunia dhot．1K． 1861．Over the church is the latge Nowkowiterwal，which is used fur great funtivals．In front of thr wastern gate stands a statue of Frederick l．，erected in 1801．of lifersize Other notable builings are the eathestral， 92 meters loner， situated on an island formm！by the Preand，a（rothie struc－ ture begun in 1385，and containing speral intoresting mumu－ ments：the old university buikling，＇ollerium Ahbertinum， founded in 1544；the new miversity lainling，on the parate－ ground to the $X$ ．uf the palace．finishod in $1 \times 6$ ．with a hall frescoed hy Rosenfelder，Griif，and Piotrowsky．（In the parade－ground stamds also the theater，and in the canter of the place rises an equestrian statue of Fremeriok William III． by Kiss．The muneum，the roynl librury（ 1893 ， 920.000 vol－ umes），the observatory，the monmments of the philusumber kant and the minister Sehön，are alsu intersting．Exectlent scientific and benevolent institutions atre the botanioal gar－ den，the zoological musenm，the seminary，three gymnasiums a mercantile school，an acalemy of art，asylums for the deaf and fumb，for the bhind，homaties，amb orphans，and serwral hospitals．The manuficturing infustry is efmsilerable． Iron－foundries，machine－shops，breweries，and dye－works are in mperation．Iron goods，chemicals，soat＇．｜＇il＂r－hanuings． leather，and tobaceo are mannfactured．The trade of hïn－ igsberg is mach himered both by the circomstance that the Pregel is frozen from November to Nareh，amd by the eon－ stant shifting and silting up of the chamels leating to the harbor at Pillan．Nevertheless，from the mildle of the seven－ teenth century the commercial inmartance of the place bus－ gan to increase，and the completion of the Pruswian rallway system has made Königsherg one uf the principal ontlots for Prussian pronducts．J×illan is ammally matered by between 1,600 and 1,700 vessels，of about 23S．000 tons，and great quantities of grain，seels．Hax，amd hempare espoted，jartly by boat and partly by rail；teat irm，salt，and lish are im－ portert．Pop．（1s90） 161.666 ．Kïngolvere was built hy the Teutonie orifur of Finights in 12．5．as a fortross awainet the pagan sambander．and rose to impurtanow through ite corm－
 axain in 18．4．3．Ahont 152：3 it trecame the caprital of the
 by the Russians，in 1807 by the French．The philompler Kant taught here from 1750 to his death．Feb．12，1xild．

## Revised by（＇．M．＇Tnamber．

Königstein，könichostin：asmall town of the kinglom of Saxony；on the left bank of the Elte；1：miles S．le of Dresden（see map uf（ierman Embire ref 4－（i）．Pop．（1890） 3，988．Behind it rises a hase rok，wis foet abos，the river and 1,111 feet above the stal，and entirely inacownible except through a narrow nassuge to the N ．WV．（In the top of this rock is built the fumons fortress of kionustein with lumb－ proof easemates，and a well 1,1 ：2 fect detlo，To which the crown jewels and the treasury of the kingom are bromith in times of war．The fortress is now alsu uscal as a state prishm．

Konkan，or Concan：the marrow mrip of territory in Bombay Presidency，British India，betwen the Western

Ghats and the Irabian sim：tha contrefort of tha Jomenum It extembs northwarl from the Porthenas sothlonemt of

 actorized by \＆very braty rablall durimit thembthwost

 pirates it potected．The homprabet here is satu to lw the best in all linl！a．



 from his ereat promposim a mat facility not their luw or of thomght．Tlinprineigal work－are Ah rike，



 theng（Crieow，108i）．

Konstandinorich Romanor．Kinsotastis：See loo－ Manor，Kosstastin Ḱos－rastenovich．

Koo＇doo［from native mame kulu］：a large Ifrican ante－ lope（Stropscerus hudu）having erect．spirally twisted horns， which monetimes attain a lemerth of over：3 feet．＂The color is grayish brown，slightly redilish in the fomales and young． and marker on the sides with eirht or ten vertical white st ripes．The kombor raneres from Abssinia to（＇ape Colony． but in the sumthern portions it has been practically exter－ minated by hunters．

## Koorile Islands：内е K゙triles．

## Koornhert，IMEURAK：S＇e Corsomert．

## 

Kootrnay＇［from the name of an fmelian tribut ：a river of British Cohumbia and left－han！afflurnt of the（＇ulnmhia river，next to（Carke river the larmat of it－branches．It rises in the heart of the lhocky Xomonams，mily a fow miles from the Cohumbia tat dows s．，while the latter thare flow：N． It passess．thrmafh a marnw valley to．Montana，turns W．
 Lake．It haves this lake un its westem side and after a short course joins the Columbin in lat． $4!15 \mathrm{~N}$ ．The wital bongth is abonat 300 miles．The remarkahle c－urvature of thas river is revated in Charke river，smake river，and onher streams uf this region．The dintrict of the Kontonay in miled in climate，bicturespue，fairly fertile，rich in mines，and a Incomining lied fur settlement．

## Koperek：Ste（orfer

Koprraigk ：Sce Copervirt－
 art at Presum．Drague，antl Viumbit，hut wat himbered from banting by an aceident to hishaml．He thevoml himetlf rhictly to literature，and went to ltaly，where he stmdied bophlar poetry，and where he berame the dis＊overer ol the
 linhed a wolune uf purms whinh astablingel his repmation
 Me also published a transbation of bante＊s Himime（＇ombly



Kopeparbere．or chora－Kopparberes：the name of a political divi－ion of swoden：slthatod an both sides of the Dal river，and eomprising thome regions whinh formorly wert su celthrated in tha hivary of the comatry under the mame of batarne（lat．Dehecorlin）．It is a wild but luatuti－ ful monntain regind，coveral with foresto of tir and bireln，
 ＂ulture．＇The inlabitants form whe of hav limest tybu－of
 F＂tum．

Kijpopen，Pater，ron：ethnographer amb arehambenist：
 versity of his mative rity，atm devented himorlf thromathont tife to resarahes concorning the ethmongy，arehambery，and




 The liussan（inwornment preandond him with an estate in the Crimea，Karabagh，where he died dume \＆Ant．

 F．．．f the Sita wher the rewt














Ghario－li．（inlast．













 some of hew witits of Hippuratas．He alsobelited Xeno－
 importanere are his Athetre on mithengs sum he hitteratur





 stulties（i．，1p．3n．1T．）

Ahmbd dibeman．
Koran（or with the hdinit，artide．． 11 Koran）：the satered






























 ars ：and that of the－－










 frother．the hat arviwe（hald be the Monders at any rate，


 have heth carefully matu，and an he ortered the deatroction of all cophin but that of haid．Here is little material for

 dad that of Day did contain tworalditional hort suras，and a manamer of mimportant variante exist．Somafter the pulb－ likation of the athemitative text a serions ditheculty mate italif felt：the promuriation of the words was in sonie cases uncertain．Whth in the vowils and in the exnmomats．There were at dirat no rowel－sigas（exceft partial designation of long vowelo，and in the Aralise alphate a nomber of the Charaters ure inlentical in fomm．This dithealy was reme－ died（probably thy the sholare of Basrame Cufa）by the grabal fomation of a remivet pommejation，which was then lixed be diarritical marke todistinguish between con－ rutamts having the same form）ant vowel－signs．The realing of the Koran became a potesion，and the sense of the work alpars to hatse bern fixed with substantial ac－ Chacy．Ont of this stady atuse the Mhem seiences of graminar，rhetoric．and theolory．

It is obshasly deximble to fix the chromengical order of the tisemrses of the Roran：it is maly ly following this order that we can comprebond the thought of the lowk，and perceive the dewhonent of Mohammed：inleas．The task is a diflionlt ond Jy remon of the pacity of data；Zaid，mo－ fortunately，was not wobrned hy historical－critical prin－ ejples．The heo work in this diretion has been done by Th．Nïldeke（（i，schichte des Qorahs）；by eomparison of the varions discomese with the facto of Mohmmed＇s career，and hy ohseration of the the of the uttermees he has proposed an curbe wheh is now gencrally acepted it is given in con－ renient fom in Cilmathis Starecons）．The carlier suras（de－ livered at lewa 610－620 are waracterizal ly brevity，hy a ditherambic tme and by an almost exclusive devotion to religioms doctrines：and inese are again sulndiviled by Nöl－ drke ints three groups．which are recognized by the grow－ ing organizalion of the prophet＇s inteas und by the gratual change of his attitude teward the Mereans．The tone of the second divixhon of sums（delivered at Menina after the Flight， $62{ }^{2}$ ）is prosace，argmentative，legishative，corre－ spmdine to Dohtmments new position as rechenized head of a religions－ f vil communty．some of the suras，especially among the later，aphear toln made ny of several diseourses， Which have leran put thedrew with mate or less skill．There
 this is dine in part，nompobt，thite fact that the prophet did repat himself from time to time（ass was matura）in part and protally，to reptition of utarances ly the eollectors． It is further hatural that in si，long a stries of diseourses Whammed shonld not＂ht irely canne cont raliet ing himself． such contradietions are mot humeros ；the arme from the
 They are hamonized in the Manamodan theologieal schaols bey the duetrine of abmation：ertain things it is －aill．were at dirst canmandod by（ind，and afterward，for
 The tixing of the kibla，the juint to which the face is to tre
 whitheremer man turn to pray，says Mhhmmed（ii．，109），


 Wa－the miginis center of the whil．later，howewer．he














The subjer－matter of the koran embraces anmonore monts of dutrine（mity of tome the dhy of julgment，di－
vine mission of Johammed), piotures of the delighte of paradise and the tortures of hell, inculeation of duties religions (prayer, pidgrimage to Newea), moral (Jomesty, jus tice, temperance, "hast ity, forgivennss, kindmess to mphans and widows, ahmsivinge), ritual (ablations, fastims), narsat tives of anelent times, taken from the old ant Now Teestaments and from $\quad$ Jowinh, ('hnishian, amb Srabian tratition, regulations loune ting rivil affairs (marratre amd divorce, inheritance, division of the spoils of war), pobmice agatnet Jews and christians. Little ot this can be callonl now. The doctrines of mometheism and a final judgrment wart alreaby, thromgh , ludaism and ("hristanity, establiohal in Arabiat when he eane forwarl as pracher. I'raver is common to all religions, and the pibrimage to Merea was an old Leathen drabian custom, in connection with whith somo of the old heathen eremonies were retained hy him. The moral duties he proseribes were such as wore crumbally reeognized by the hottor minds of his time; his rivil laws were modificatims of existing msiges: but nu groat reformer is original in the sense of probucing bleas and estathlishing customs absolutely new. Mohammed showed his genins hy the insight and jower with whieh he selected and emphasized certain fumdamental rolirious ideas, amd mobded them into a system jossible for his peonde and his times. Ile came out of and hated to deal wifh a conereries of halfcivilized tribes; he eonverted them into a eonquering nation. The desort Arabs were then, ami have evor since been, naturally an irreligious people : he made them enthusiastic for reliofion. Wis social regulations are markiad by hamanity ani wiselon. Je ameliorated the eondition of women and slues ( 6 xxir. $3: 3$; ii.; iii.; ix.), and denounced the existing eustom of female infantiode (心. Jxxi.). Polyrany and slavery are treated in the koran as in the old Testament-they are reeognized and controlled, but mot abolished; but the liews grew out of theo chatoms. as the Mowlems, mater goon smeial eonditions, are now duinir. The ethies of the Koran is surprisingly high when we remenher the eharacter of the suciety out of which it sprand.

Allah is the spaker throughont the koran, exeept in S. i. (which is a payer), and perhaps in a few other places (xxvi., 9:3, 94 , Buhammed: xix., 6.5 , the ingels), in which, howerer, it is doubtful whether what is said is mot intendeel as an utterance of God. Therr is no ditlieulty in sulposine that Mohammed believed himself to lie suaking in the name of God. This is the convietion of the semitic prophet every-where-he identifes his own conviefions amp purposes with the divine will. There is, indeed, a great difference hetween the ecstatic onthursts of the earlier suras amd the redfertive tone of the later; the former breathe inspiration, the latter come out of ordinary thonght. In his last years, when his mission was assuming larger eivil-politial proportions. Nahammed may well have convincel himself that the revo Jotion he was condactins was the work of Gom, and required and deserved divine ghidanoe-that is, that his thought was a divine product. If a change hat to lar made in ritual or in ciril law, naturally it wonld be diod who made it; if a revolation come in the niok of time for settio a doubtful question. it wadd be Goul whon was watching and intervened at the proner moment. There was mothine in this that contralioued the semitic idea of divine revelation, and Mohammed lived in an unselontilic age. 'Thw intermediary between God ant the prophot is the ancel Gabrial (ii., ! !), as in Daniel and lakra called in tha Forran the spirit or the holy spirit (xvi.. 104). 'Thr K゙oran was" went down" from heaber (xevii.), in parts (xxy, 34 ), in a luisurely, deliberative mamer: the Johammedan orthomax theologians bold that it existed as a whale from all etermity, and was revealed as owasion requimb, while the Jotazelites or Rationalists comtend that it was created, like all other finite things. There is no gond russon to dondot that Mohammed is entithed to the erorjit of it cemposition. Il is claim to its anthorship was eontented in his liferime-it was said that he was tament it by aman, a foremoner (xvi., ion). To this he thinks it sumporint tor roly that it is written in Arabie, and therefore ambl not hatio boon dictatmi ly a foreigner. The persom hare reformel for his asistant is unknown, nor is it now jomitbon to determine: whether he had suggestions from friends and megnamtanmes, Arabio. Persian, Jewish, ant ('hristian. It is whime that the
 cane to him, not from the realiner of the Dible toxt, but orally and often in mambed form, and with late lemendary embellishments: and it is probable that he sometimos mise understood and confounded them. Many of the joints in

Which his narrative diffors from that of tha libibl (at in tha




 of his time-thase tribnes fined by him in at remote ath-




 thas draw his material from varjoms patitra, waviner it all into hi- dontrimal syotem; the wonder in las that his -tortas are cruble than that has mata thems sur oforetive for his jur-
 Necat abl the butar woml ; Hohammed, fin comman with
 in pusition toritt it. It incortain that he labmed his rationious duetrines from men, and it is furdahle that his cisil decisions were made aftur andsultation with his most trusted frients: but it remains trues that has and hat abome is the author of the Koran ; it was hu who from the materials accessible, selected with astonishing insight just what was required to make a workingsystem. Wramy have had mono-

 prose (onnjonsition. There is atory that the grat jeret

 nents in Medina to promber a sman equal (o) his (ii., 2t). I'his is sometimes thescribuel as a lrutum fulmen, since maturally
 to anmanace revelations from heavons and the proplat might vafely rely on the inability uf las contempurarias to come forwall as hiverive: but there semes to hase bun solinlity in his challenge. He was comscomen of sumprintity louth in the matter of his thought and in the sto of his utteranoos. sofar as we know, the Kuman was the first Arahic mose prometion. Recited with imprasive solmmaty. in the glow of a preat revolution, thend diacotaress wonju naturally sem to believers, anm sometims to unbelievers, to have mome than human beaty and juser. 'They moverd in a chamo above the thombhts of the ordinary Arab of that time. It is roue that they conatain many jabatige wif romarkable dignity, force, and rlapmence. There is exaltation in the rarlier suras, and persistence and comtinnity in the later. On the ofler hamd. the styde is sumbetimes sloventy and the logic is ofter at fanlt. That form is rhymed prose-a matu-
 ture. It was perhaps aboted by Mommont as being the
 perhajs heratise he was unable to write fuetry. Acerordines (o) the tranlition he was mot al foet, and it is carrain that he
 seducers toreil (s. xxvi., end). on acenment of tha irrmisions
 illiterato man (vii., himi), and sass that ho emblad neither read nor write (xxix. fif) : hat writine was net a (ommon aneom-
 ments ly momeans imply that ho was mot achuanted with
 and sagatelly, and, with all itcemamerioms and whor fatalts.
 part by its resuhs-it (reaterl Arabue powe liturature amd Moslem sume. It can mot he comparmi with the dha Tentament for varioty and hemoty amb depth: hat then it is the Work of ont man. Jixing in a comparatively jenlatad and ignorant ammanity. 'The opeaner surn is fustly admimel
 It mast hermemberal that he had lithe or no opportumity

 in the: text. The initial letter whioh stand at the hercimainer of sumb surac (twenty-nint in all) have aj for thin timet ro-






 Nöldeke has demarked that in mosi of the suras in question the first verse contains the word bouk, whence: he conjectures

 ＊rathoth intorest．





























 （1，ヶッチ．
（1．11．Tッチ．
Korat＇：a town of the stamese laces：seat of a vicoroy






 combery apomall is rich in enther，whinh is worked．The


11．W． 11 ．

Kordofan：a powine in the Fintom Sudan，Mrian；








 （ampital，lil theid．

 ocelpsing a farthon of the mandand，and the permonda
 dapan．It is cutimely indmbed within the pamalden of ：31























and Mongolia，amb are apparently comtinuations of the




 J＇ram tha main axic the surface falle off ahrujtly on the F．， ＂hile tu the W＂．the shope is more grambal．

The eq－ the＊omthern and weotern masts are dorply imdented and are
 mile hyli）on the sonth aml kiang－lwa on the weot conast，

Wibli the exception of the＇luman，which rises on the murth side of l＇aik－1u－sin（or＂White llad Nomatain＂）in
 fow from S．tus．，all the rivers of Koren llow W．or S．W． ＂Hhe most montherly is the＂Imonok，which rises on the south
 annar junks for so miles，and by tronts for 145 miles more， or ar far as Wi－won，＇The Tai－hong（in（＇hinese，Ta－tung）is naviguble by boats io l＇hyönr－yang（in Chinese，I＇ing－yamy）， Tin miles；the Jan－kang for so miles，as far as seul，＂the capital＂：the kirum－sa fur ； 0 miles：and the Nak－tong， which falls into the stratsof Korea at Tongrand，near the frot of Fusan（in lat． 3554 N．and lon．les $41^{\prime} \mathrm{F}$ ． ）is nari－ gable for 140 miles by boats drawing $4 \frac{2}{2}$ feet．
The tides on the＂ast enast are inconsiblable（rising only 2 fect at（iensan），but wh the west mad suth they are strong and dangeroms，rising to a great lodight（3）feet in some pharts），receling with surforising ruphlity，and leaving areat mud－hanks on which forejgh besels hate often been left hish and dry，ant at the morey of the matives．The climate resembles that of correponding latitules in Chana，the thermonetor falling in some phaes as low as－-7 or $-8^{3}$ ． and rining in summer to ！ 10 ， 9.5 F ．Jhe Han river（in lat． 32 Ň．）is fruzen wer for about live months wery winter．
＇The mineral wealth of Korea is great．（iodd and silver are fommat the former being an important article of export． There are iron mines，and conl is abombant and is worked in the neighburnom of l＇hyous－yang．＂lhere are coppre mines in several phaces，and Komain copler and lorass wares are much prized in（＂himatad dapm．

The fanma incholes homrs．tigers，lopards，denr，batgers， foxes，matolns，ofters，heavers，cte．，but mo wolves，though wolvesabmad in Mancharia．The domest ie animals inclade the pig．the log，and the ox，which jo of immense size and is the isual beast of burilen，while the herse is no bigger than anmall Shetand pong，＇The hills near the Manchurian frontier are covered with dense forests，and lare quant it ies of timber are amamally floated down the dm－mok．Among arrieultural products may be mentioned rice，wheat，pulse， maize，millert，cotbon，hemp，and sesame．Ginseng is also －ultivated，but is inferior to that of Manchurin．

Jhivisions－K゙ura is divided into cight do or provinees， three of which are an the eat enast．and five on the west． J＂her are here given in lioman（with variations arising from dillerent symems of transliteration in roghe among fureign－


| horean． | Chinese． | Japanese． |
| :---: | :---: | :---: |
| Ham－kyong kimmk or kyti | Kan hing． | Kan－kio． |
| Kıngswön（w＋n）¢r＋hatu） |  | K゙ら－gen． |
| Kyomg sang（ur Kyeng．syank．． | K＇ing tiang． | K．i－sho． |
|  | Chllem－lu．． | Zen－ra． |
|  | Chomg tring． | Chin－set． |
|  | Kine ki | Keiki． |
| I！wang－bai ．．．．．．． | Huang－ht | Kir－kaj． |
|  | Hing an | Hei－at． |




 the N．）and baikion（in the S．）
The people are pohably of Momgol－Tatar orgin．They are laller and more ruhust that the hapnese and may ke ＂wapared with the Chines of North Chima．＇Ihe men wear the tuphot，and the flowing white gaments which the Chinwe wo hefore the Mamehn complat in 16ats．They



 sampheresail．The wome bowever do bet bind their feet，but they are kept an mach in seclusion as in（China．

Buddhism was early introluced from China and spread thence to lapm．It is still found in the conntry，but it has litule influence on the pernde，whe pratice the Confurian morality and ancestral worship and many other superst $j-$ tims．No Buhhist temphes are fomm in the capital，and monks are prohibited trum entering the eities．

Gorerment．－Intil ，lan，s， 159.5 ，Korea was fritutary to （＇hina，and its kings received investiture from the empreror． Every yar in the third month an envoy carried to Pekine （via Muklen）the tribute impusel in 16：3 hy the Manchus： 100 ounces of godd．l． 000 onnces of silver．certain quantities of silk，linem，cottom，and other fabries，busides furs，routs． cte．，and other products of the comatry．He returned in the tenth month，carrying with him the almana for the follow－ ing year，and many presents from the emperor．Kurea was autonomous，however，and the king absulute master of his subjects． 1 li s govermment is carried on by a grand comocil of three ministers and six boards，each with its own presi－ dent and its own staff of officials and subordimates，all，ats in China，appointed after comptitive examination．At the head of each province is a Kamsal（guvernor）and a Tai－jang （general），both of the highest rank．

Industries ant Trade．－The chief indnstries are faper－ making，mat－weaving，and manfartures of silk，hrass and copper ware，and sphit－bamboo blimes and hats for mative ust．These last are made chielly on the island of Quelpaert， and are remarkable for the threallike fineness of their splits．Trade with the Chinese is mostly carriml on at the
Korean Gate，＂near Fung－hwang－elhigg，on the Mancha－ rian side of the nentral strip，and at the treaty－purts of Chemulpo，Fusan，and Gensan．The customs report tor 1801 showed net imports to the value of 86.318 .120 （ $\$ 1,230,104$ native and $85.088,022$ foreign）and exjwrts of $83.9,1,093$.
Ifistory．－The earliest mention of horeal verurs in eon－ nection with the founding in 1122 Br ．c．of a colony of 5,000 Chinese led by Ki－tse，a Chinese prinee，who fomblit ate－ eept the rule of Wu－wang，the founder of the Chow dynaty． It is donbtful，however，if he ever rached the restion now known as Forea，and little is known of the comtry before the third century a．id，when Jingo－kodo（q．$v$ ．）madi－war on it and exacted tribute from three of its petty princiralities． One of these，Korai，afterward bemme dominant（in the eleventh century），but was itself overturned in 1392，when one Li－tan founded the dyasty which now rules and gives the conntry its name－Cho－sön．Its nearest neighbors，China and Japan，have been its worst enemies，while both have clamed to be its friends．In 1.991 the famons Japanese general，Takosama，pheked a fuarrel with it，and in $15!2$ sent an army of 163,000 men，who quickly mate themselses masters of three－furths of it．Later，however，when Chi－ nese help came，they were forced to evacuate sululan retire southward，and when the Taiko died，in 1503，they were fain to withdraw，contonting themselves with exating tribute， and retaining the purt of Fusan．Sinee the Danchu con－ quest in 1637 Korea has been at pace with her neighbors．
European contact with Kurea has been slight．In $1 \times 66$ a French fleet，under Admiral Roze，madviselly made its way to Senl to obtain redress for the marder of some Roman Catholie missionaries and（abtured Kang－hwa，but retired without aceomplishing anything．Again in nion a U．s． expedition visited the capital to seck redruse far the maseat cre of the erew of a trading schomer，the fomeral sher－ man，which had been left aground lig the receding tide in 1867，lout the expedition failed，and korea remained a her－
 ting a treaty of tralle．This was followed by treaties with China and the $\mathbb{C}$ ．S．in $18 \mathbf{x}^{3}$ ，with Great liritain and hirr－ many in 1853，with Raswia in 1－st，and with Framee in 1swt． The jorts onmed by those treaties were Fusan，（temsan，and Chemulno（or lawhen）．
The more conservatime element disapprow of these ena－ cessions，and gave expressind the the disaldman in insur－ rections，the most serinus of which arcurred min tist amil 1sat．On the latter oreasion Japan semen！to think her in－ tereats were menatod，and landed a fore of 10.000 men for their protection．（＇hima，as the suzerain of kirna，resented this，sent trongs to aid the koran fimemment．and re－ fuested the bapanesa to withiraw．This they rafinad to do motil certain＂reforms＂ware suarantend．and＂＂hina finding herself unable to agree to this，houtilitios were learna by Japan，and war with（hina was derlated．Jeatom at crery point in Korea，Manchuria and shammor，the Chimese sued for peace，and by the treaty of shimunosehi（ 1 pr．17，1895） acknowledged horea＇s independence．

Itpoletion．－This has houn varionsly extimatem at from



 Nietion（New York，INXe）；（bores，Without and Hilhin

 Cipitul（Philadelphiat，1x：3）． R．Dhlefy．



 number and cave being amitm alturether or＂xpmond by
 for preson and momber，but has various tenom and mode forms，lat the semanere the rule uf parition is that the quatilying wort precteres the word qualifien．Than the monn is preceled hy the andoctive or ether attributive，the aljective and vert by the alvert，the wemb hy it－ohjow and

 －iong and the difference in the rank of the spakier，ame the
 of a different eve of pommen，but almo by varion hommifie tormimations in the vert．＇The phonetic structure is less simple than that of the fapmeser，combinations of cmaso－

 are comman in Kurem．
The native alphatet．the inwotion of which is anioned to the furth century A．B．，in mempend if aldevin whe
 somt．aml there is but one sign fur $l$ and $r$ ，which at the end of a worel has the smat of l，between two vowels the smmil of $r$ and at the herimine of at word ewo the sumad of $n$ ．（The Japanwe wh the wher hamd，has no $l$ and the（＇hinese no r．）It is written like the Chineme in vertical cohmas，rad downward，procoding fron right to left．
 erary languas that the Enmm，wr mative character，is em－ phyed for little except works of firtion real chiclly hy whinen and chiklren．All wheial doeuments．historical am fhilowohncal worksare written in Chines：The native
 is of small extent amf litte value．In the forech alon of the wheated wasses ilhinese whris form a larig part of the
 nose，intrentuced centuries ator，hiffers materially from that of any of the prestat dialerlo of（hina ame may he of soty－ ice in trame the history of lhinme whats．

Acrhoraties．－Diotimathe forpen－frangeis and firam－

 Lampunp and（＇oncis：Didionury of the Komen Lanquage （Yukubathis，1890）．

Abmos Cax Name．
Komodeko．Vlambir（ialakthentell：author：bo in
 Was educatial in st．Paturshres and Xosum，hat while still as student got into political tronhle．Was exilal to（＇ronstalt，
 In 1se．s ho was allowel to roturn，and sptlat in Nizhni－ Noveromb．Dany of him prolmetion have been traskated into other banguage．In Enulith there is a xilume of his





 lar liawian weiture of his time．Submal of hiv work have
























 stipacter and Loporatues．

A．I．．I．
















 It in in and atrondmad and milline rewim，and ratow and


 limit－atimatral，1，som．

Emane of＂scak．＂



 mate an oftiop in a reximent：Int havius oued in vain for the hand of a hamater if the verextant－meral of hitho－ atma，am tho kime of belam himade hoing mathe to for－ ward hi－－ait with the unwilling lather of the young laty









































 my on the Australian matiment．

## 


 and now Maryare of moble rank and of the Lathorm fath．



 writer and jomrnalist dial mundi to dioneminate litural prin－
 fenalur：wase editor of the leot Jourmal 1st1－4t：entered
 if the linerals，alcuatine monts uther reforms the en－ framehisment of the peasatry and the fremom of the pres．Ine hatad the degmation of tede demanding a new minitery，in which he herame ministor of linance：but not satished with hase enmesoms，he demanded in 1840 the complen inderembere of thumary．With the trimph of the ratical chenent in the Inomsarian Gesermment and the resignation of bathyinyi，Kossuth lowame the virtual dic－ tano．Dfor the dedaration of imbembence（Apr．14， 144），he atem as provismal gwemor of llungary，and
 of the canse imbued him tor reign his dictatorial powers into the hamb of his rival（iörgei．He eseaped to Thrkey， where be was proteded，notwhtamling the demands of Austra and hasia＂for his extraditin．In 1sil he was al－ lowed to go an hard the L＇S．Ambur Mississiph，whieh hand hea sent ont for him by the C．S．（Gwermment ；visited
 many wownthoug fruithes aporals for the influence of the 1 ．．．in behalf of the prime ifle of nam－intersention，be－ lievine that if Rassia had not asinted Austria in 1849，Hun－ gary wonh have hecome fret；after 18.0 resited in London and from dat：in Turin，engared in political projects，in publie speaking，in writing fur liberal journals，and in sei－ ratilic obscrations．He denided all pritipation in the in－ surredion in Milan in l＇ob．，1s：3．I huring the wars of Ans－ tria aganst hanee（185）and l＇rusia（1866）he was actively engaged in freparing for insurections in hungary，bat the suredy temination of buth wars frustrated his hopes．In Now．，1sin．he loat his rights as a hamarian（itizen．D）in Turin．Mar．20．1sa4．Jie received a publie funeral at luda－ past，is whe thational momment there and his country－ men jpopne tw erect a stathe of him in the city of New Sork． Kosuth，greatost of Inmgarians，in his beat days was one of the most impascioned athe aftertive of funtice speakers． and prosesed a marbelous appeity for the atequisition of
 vols，in（imman）；the sefet sperfus of hossulh．by M．F．

 biss of My Exile were poblished in 1s＊o，ath his Memoirs， whichi he completed hefore his death，are to lo issued in several velumes．lievined ley fays：firant Whasos．

## Kostendil＇，ar thinstendil＇：town of Bulgaria；on the

 has warm sulpharous aprings．P’，（1ss0）10．689．

Kostor，Latress Jaxszons：he Coster．
Kos＇ter，ar Coster，simbet：buth poot．The details of his life are little linwa；burn about 15su．and died about 16．0．He was a physiona at Amstordam，and bedonged to the eirelt of eminent men whe lised amd wrote there－
 Taytache flademide whith replaced the ohder ehambers of

 native and paphar pasers apar，hawer，quito as well





 at Proshan（1860），amb at lalle（18：0）．Ammag his works are two lives of 3 artin Lather the more j＂pular of which apmarel in 1 ses in two linglinh tramsations，while the other is an exhantiveand claborate sedentific treatment of the sub．
jeet（2 vols．，Etherfehl，1sia）：also LAthers Theologie（2 wols． Stuttgart，186：3）．He is one of the editors of the Thomo－ gische studien und hritiken．

II．F．dacobs．
Kostro＇ma：government of European liawim：stuatad nearly in the center of the country and hamerand by the

 crops of grain are protuced．Tir．pitch，and putanh are



Kostroma：town of Eurapenm linsia；the rapital of the government of kintroma；on the Kostroma，near its intlux Into the Volga（ace map of Russia，ref．6－E）．It has 40 churehes． 2 momsteries a sminary，a rymmam，and sov－ eral other educational institutions，lirge mamifactures of leather and linen，and an important trade in corn and tim－ ber．P＇on．31，1！6．
 and poet：b．in 181：in Ustrogosz，grovemmont of Comonoh，
 structor at the University of Kharkor，where he had hem a stubent．hut was dismissed after a year bermase his af－ forts to promote the development of little liunsian as a separate tongue were displeasing to the govermment．A secret society he had joined with the same object was dis－ covered；he was arrested．and was ordered to live in sara－ tor，which hedial natil the dath of the Empern Nidnalas． In 18.59 he was apmointed professor at the Cniversity of st． Peterblure，but resigned in 1 s 61 after some disturbances． henceforward refusing repeated invitations to take another place．IIs earlien works were poems in hittle lansim， but，as he was forbidden in 18ti to write in this languge． he turned to history，at first devoting himself to that of the Ukraine．His works are written in a brilliant poetical st yle that has made them rery popalar，and has given them a plate in literature．Among the most important are The C＇usstrk Wur with Putand up to Boqdon Khmetnitariti（1N，5i）：Bog－ dan Khmelnitskir（185）；The Hetmen Wyhouskiz（1501）： Mistory of the Republics of Suequrod，Pskor，amd l＇iutha （186：）：The Commerce of linscou in the sirtenth and ster－ enteenth Centuries（1s5）：Mistory of the Pohish Mmbluc． （1870）：The lain（18：9）；If azeppu（1892）：The Followers uf Mazeppu（1sst）：and bis untimished Mistory of hassia in the Bioyruphies of her（ireat Men，of which fifty were writ－ ten，retching down to the early part of the eighteenth con－ tury（ferman translation begun at Leipzig，158．）．Many of Kotomaroys riews have been onmosed hy Polish imil hy other linssitn historians，but his inthence has beren great． IIIs tragedy Cremetius Combias has little merit，and his Kudefier（sina）and other novels are chictly importint for their historical background．

A．C．Corlithe E．
Ku＇tah：one of the independent Rajput states，momr British protection，in llindustan．Its calpital，Kitah，is
 it is fortified，and is a tomn of some imprriance，liaving good bazatrs，many temples，and substantal houses．Area，


Köthen，kioten（aloaspelled Corthen）：town：in the duchy of Anhalt，Germany ： 19 miles N ．of halle（ave mall of（ier－ man Empire．ref．4－F\％．It has a handame ducal palace with several fine collections，hat gome educational intitu－ tions，and impurtant sugar industrice．bown tor 1na：the town was the eapital of the principality of Ahhat－kathon． 1＇ou．（ $18+50$ ） $18.21 . \%$

## Kothons：sce curtacs．

Kotzebur，Aebret Frienrifi Ferbixino，wom：h．at
 and went in 1 ard to st．Petershare where be waspminten to various important baitions in the laseian civil arvice． Returning to Gormany he lived at Weinar and Vivnat． and deroted most of his time to the writing of hio mang
 lished his wiolent attarks arainat Nambent．He remsimed in laswian services thongh he lived alternately in tit．Petars－ bug and in Gormany．In 1sis he was ant to the latter country with a salary of bib，000 rombles to repert alienctly to the liussian elupero on the liberal mosement in（iaminy， The indighation among the tierman penple was very great． and in 1810 （3）ar．路）a student，Kirl sumd．stabled him at Mannleim．Though Kiutzenme，who dontilessly pusussed great dranatie talent，wrote abont eno pinces and was bary pogular for many years，his phays are now justly forgotern．

We flattored the lowest of hamath inatinets，and 1 onlioved th be able in this way to satisty hin tavine for finn and his
 itnelf correct．amb the atempt of＇harlos lian amy，a fremeh





Julic：dinebiel．

## Komian：sue Hzabictat．

Kotoshíkhing Koshihhiar，imeonif：limwian writur：

 atfairs）of the Trar Alexis，hut in lofil fall into di－fiver ha－ Gase his conscience did hat allow him tordo momething or－
 the sweden，where he remandel，ant wher he tweame a hatherals．In 16ife－fir he wrote for the swedish chancellor a work deseribing the empire of Masony，hut som after
 treatise was discovered in the linary of the thiversity of Upalit in 183s．and pmblished in bisis by the imperial ar－

 of thexis Mikhalowich：lant ad．1sst）．Kutuhikhin＇s ale count is most curions and interestins，and it is clear，trunt－ wortlos．and to the print．The bicture it gives u－is fiar fron thattering．Sue art．by Grat in l＇ubl of the Imperial


Kommiss，Kmmys，fir Kumiz（from linss，liamys，from Tartar hamiz，frmenten！mare＇s milk］：a formenteal bever－ age made from mares milk in the steples of kumiat hy the Kirgheez，Tartars．Bankeers，（ahmatke，etc．The aldohol is herived from the milk－sugar，which is prewemt in mare＇s milk in larger quantity than in the milk of＂ther animals． The frosh milk is diluted with one－thind to on－sixth water． and placed in a sack of goatskin or the skin from the en－ tire hind gharter of a hore，the wider end smering for the hase，and the leg portion for the nerk．There is generally abden some yeast．the sadiment from a previous hrewing． called kor，to imduce fermentation．Vreapent stirrine or －haking is essential to sheces．In from twelve totwenty－ four hours the fermentation is complete，the rabluet heing known as young kommiss or saumal．Frenh milk is added daily，and as the product is comentrater by the evannation of water from the surfate of the hide the fild kommine is much stronger than the now．Knumion is an ach liquid of at not undeasint gungont tasteand an ethereal homphet．It

 nos．Lbevides alcolol and earbonic ache it contains the uther consituents of the milk，exeqt the argar，and in con－
 invalide and the hardy viror of the Tartars is atributed to its genemal me among thom．Kinunion belds by distlation
 From the revilae in the still they make a hand of hater－pul－ dime．Thererages stmewhat similar to bmanise have homer bern made in the＂rkatey and shethat i－dands，in Arabia （called lobere），and in＇lurkey（＂alled youmet）．

Kumbios has attracted mish attention amone formean
 Monem，St．Jeter－hme，Vienna，and landoh．It may le mande from the milk of any animal．＇lhe fulluwine analysis Was mate by Wimkly of the contemt－of a buttle of kou－



It is chamon that konmios is nome rathat for the trant－

 landimith 11．A．Make．
 Howers and unrip fruit if Progera enthelmintion a $=$ mall
 and safe but costly remedy for tapewom．

















$$
\text { 1. } 1 \text { ' (x) } 1.1111 \mathrm{FF}
$$





 hetnpare "xtomaiver! enhtivatod.







Koxinga, kioshing ah, wr hok sinter : mbed (himes



















 ine sear they anrrembred and sated fur Javit. Kosingat
















1:. J.11.מ.J.























 Lontor of law at the laiversits of Nuseow har entribated


 (National Anmals), in whith many of the chaof writurs of the


 to have tho large cirovation of any mowopater in linssia.
 mote that whe sutverded in matimaming a cortain indeforderne when it was far from easy. A. C'. Couldoge.

Krallt-Ehines kraft a hing. liwnarn. von, M. D. : nenmogist : b, in Jambetim, (iarmany. Aug. 14. 1840; was edurated at the l'niversity of thededorer : was I'rofessor of Psychiatry in thu University of strashorg 1872-73, and in
 chatry and Serrous Jisanses in tha Gnivorsity of Viomna
 chologie (2d ed. 1世NQ): L, hrhum der gerwhtlichen Psycho-


 uuf dum (rubipte der /ixyphoputhia sexualis (ed ed. 1891); and oner ? 200 profesional erays.
('. II. Thurber,

 wher he now lives. In 1800 he published a collection of
 from the Franch, and alen wrete a trasely, den Rohač $z$

l. d. K.

Krajova: a lown of liommania: at one time the urinci-

 has twaty-sumen Geek churches a Protestant amd a Roman Catholic ehmod, several symagnoms, a theater, mereral instituthons of loaming, and a beantiful park. 'There are pro-


Krakatora: a voleanoon an iskad of the same name; in the stant of suma, betwen Java am? sumatha. 'Jhe darbest meromen eruption was in l6so. The valemo then be-
 high matil lises, when there seroured one of the most stupendons (ruptions eber known. Tho eruption began in
 ishand was hown away, and tragments of phmien and dust thrown to a hugrtat liy estimate of 20 miles. (iaming the
 the antire vath, and probaced remarkable twilight entows for many monthe. 'Tha* semme of the explosinn was Theard
 air travelad fome and a half times aromed the world. Sen Waves 50 fort high swopt the mothboring shores, and smaller waves were duserved om dianat coants owe half the globe. Ont hambere amd sinty-thre villages wore destroved, and
 laten rontmitter of the diongel suciety, oditul by (i. J.


Krákrn [ = ban, : Norw. lirelel : a fabulune sea-mon-
 pidan in his Sorges Naturliye Mistorie. whieh was gube

 foumb fottom at 30 ta 30 fatbums, where the ara is known


 Pr ruw anay or they will perish in the waver. 'the kraken




 i- f10 Prmen,

Rismis l?, INBERNON.

Kranacha: Sé ('rasacto.

Krantz，Albert ：historian；b．in Hamhurg，Germany， about 1450 ；was educated in that rity and at Rostock，and beeame rector of the luivernity of lastonck in $14 \times$ ．Ile represented the Ilanseutio towns on several important dip－ lomatic missions，which he fulfilmel with suctess，and in 1500 was chosen by the King of Immatk and the I）ake of Ilolstein as arbitrator in their difference over the province of Ditmarschen．Ab lean of the churehns of llamburir he showed great zeal for removing the abouses in the（＂hurch， but ophoserl the views set furth in the writings of Wreliffe and 1luss，and lrophesied ill of Lother＇s movement．It．in Hamburg．Dee．F．151\％．His chief warks arw lambatia，or History of the Trite origin of the V＇andals，etc．（1519）； Saxomit（1520）；（hromirle of the hingions of surden， Denmark，ant Formey（1545）：and Metropolis．in History of the Church in Siaromy（1548）．

Krantz．Jeay Baptinte sébastiks ：civil engineer：ly at Arehes，Vosges，France，Jan．17，1817：antered the Poly－ technic School in 1836 and the Ecole ale Ponts et Chaussées in 1838 ；became orlimary phrineer in 1843 and engineer－in－ chief in 1864．In $186 \sigma^{2}$ he constructed the l＇alais I＇Industrie of the Universal Exposition．In 1868 he invented a very in－ genious movable dam for the Seine，which，however，was not generally adopted．In 1800 he rendered special sepvices dur－ ing the siege of Paris，and was elected senator in 18．1．In 1876，appointed commissioner－general of the exposition of 18．8，he devoted pirhteen months tu the construction of the buildings of the C＇hamp－tle－Mars and the Trocadero，and to the organization of the sections．He was also commissinmer－ general of the French Government to the Columbian Exjor－ sition of 1893．He retired in 1835 with the title of honorary inspector－general of Ponts et Chansses and grand officer of the Legion of Jhunor．Dle has published studies on the Ese of the Army on Public Works：The Creation of un Army of Public Works：Reserver Wralls：Kemarkson Principalant Local Linw of Railuwy；and On Cheap Railucays，Stamel－ urd and N゙arriuk Gunge．W．R．Hettox．

Krapothin．Prines：See Kropotkis．
Krasicti，Iovary ：eqelesiastic and anthor ；b．at Du－ biecko，Galieia，1734：stutiel theology in Rome：was mome Bishop of Ermetand in 1765．Arehbishop of Gmesen in 17！ 5 ． and died at Berlin，Mar．14， $1 \times 01$ ．As Ermeland was ant nexed to Prussia in $17 \%$ Krasicki became a Prussian sub－ ject，and his talents anm elpomt attaimments soon made him a favorite of Frederick Il．His writings，collected in War－ saw in ten volumes in 1803，are mostly satirieal，and pro－ cured for him the name of the Polish Voltaire．IIts Monn－ machia（War of Monks），a satirical ${ }^{2} p$ ie．and his fables hathe betu translated both into German and French．

Krasinski，krinl－sinski．Zrimũt Napoléon，Comnt： Polish poet；b．in 1＇aris，Feb．19，1813：a son of（＇ount Wyneenty Krasinski，an adjutant to Napoleon，later a Russian general．When he became of age he left his mat tive country，lived in different Emropean eapitals，and died in Paris，Feb．24，1859．As a peet he stands next to Mickie－ wiez and slowaeki，ant his works have considerally in－ Inenced the modern Johish poets．Ilis best works are lri－ dion，a drama elepicting the struggle of Christian illeads with those of anciant Rome：Viehusta homedya（Undivime
 and Psalmy przyszlosici（Palms of the Future），？rical poems praising heroism and martyrdom，enmbining patriotism with piety．

Revised by J．J．N゙ril．
Krasnolhorskí，kraaz no－hor－shaa，Eliška（pscurdonym for Jindríska l＇echoúd）：poet；1，Nov．1N．18t\％．at Pragize， Bohemia，where she still hives．She was edusated at ario－ vate institution（Pragut hat no high sehools fol women then）．Hers was a family of artists，and she knew notes of music before she knew the alphabet．T＇o literature imm fro－ etry she was introducel by Mme．Karolina sivetai（q．e．）． In $18 i t$ she becane elitor of the Zenské Listy（The Wommn： Journal）．Iler prineipal works are eollections of lyripal poems，noted for temperness and prpreciation of natures beauties：$Z$ máje žiti（From the May of life， 1 Nĩo）；Ka Sumaty（From the Bohemian Fornst，isi3）：1＂lny v proudu

I. J. ぶкin.

Krasnovodsk：a luswinn funtrose on a bay of the wame name．on the southeavern thore of the fapman siab in lat． $40^{\circ}$ N．；an important starting－point for scientific and mili－ tary expeditions to C＂entra\} Asia (ree map of R"umia, rof. 12－1）．Peter the Great understood the inmontante of the
point，and used it in an umbrtaking ugainst Khiva，lot

 establinhed here in 1805.

Krasnoyarsh＇：lown of siburia ：＂apital of the sovern－ mont of Yeniseink．un the lanisui，whinh at this puint is
 It is a batat town，with considerable trale in fur amd leather．I＇here are important wall mines in the wionity． It was fommed in 1620 by（＇sisables lat was mot made the capital of the govermment until 182．．I＇up． 17.000 ．

Kraszewski，krata－shey ski．Jigef luyay（foleslauite）： foet，novelist，and historian：In，at War－aw．Pulamel，July 24， 1512；educated at Biala．Lablin．and swislue\％：enternd the V＇niversity of Wihno in $182 y$ ，stulled liturature and historv． and began writing epre pmons amb historioal novels．In 1835 he retired to his estate in Winhynia： $1 \times 41-5$ endited The Athencum：185！wrat to Wrarsaw as mlitar of the fuaze te polske（fumedy（odzienmu）：raigned in 1sfor，and，uw－ ing to political troubles．wont to Drestan in 1sfis an an exile． There he lell a victim to Bismarelts hatrad of tha Palioh． was tried for high treason（1s＊t），and whtencerl to three and a half years imprisumment at Maghburs．hat was re－ leased in 18s6．at the intervontion of lhmbert，king of Italy，upn giving bail in 20.000 marks：went to Jtaly，and later tuswitzerland，where he dient at Genevid．Mar．14．1sxa． Ile was the most prolific writer of mondern Pohamb．having written over 400 volumes of epic penmw，novels，romances， histories critical essays，trarther shetrose we llis prin－ eipal works are Anatielus a large npir haved on lithuanian history．in three parts： 1. Hitolureuele（Wilna，1s40）： 2. Mimburs：and 3．HFitoldoue boje（Witobl＇s Wars．1s43）； romances amd novels：Iutte $i$ semiot（Ther Jonet and the Worlel，1839）：TVana（Wilno，1N41）：Fiordecti（185））：（Thetu za wsia（The llat beyond the Village．1now）：I）ziecie starrgo miostic（Children of the Old（＇ity）：Jorituri（Going to lie． 18．1）：Resurrecturi（1571）：SEutun $i$ kobipta（The Devil and the Woman，1841）．a lantast te dramat ；hinturicall works： Litura，starožytne dziejr．etc．（lithumian Jntiquilies．War－ Sitw，1850）：Mistorija Lituy do NIII．umekn，a history of Wilno（1840－4？）；and Pukkin w rausie trach rozbiorúu （Pohand at the Time of the Thren l＇artitions．Pasen．1875）．

## J．J．Kiril．

Kralls，Frermard Lithwhi Argest，M．W．．Jh．D．：physi－ cian and lexicograyher；b．at Jehmstält．Brunswick．liee． 12， 1505 ；studied in his nativn town ：mat in the Caroline
 studies in the universitios of dlelmstätt and Giattingrn，ye－ c＋iving M．J．from the latter in lats and Ph．Il．from the former in 1s09．From 1sox he was privat docent in Göt－ tingen Thiversitr，teaching intermal medicine and phar－ macolugy，and duriner the emmpaign of $1: 15$ be taught anatomy and surgery as a substitute for Langenbeck．He deruted his extensive meatical and phatologirat knowladie （1）lexicography，and fublishtel in 14．21 his hritisch－tymo－ lomishes medermisofes Leriton，that passod throurh threa adidions ly 1 Nit，to each of which he matle mumerous adeli－ tions．This lexion has served as a ridh mine of informa－ tion for all suberuent lexiencraphors．Among his other writiners are W＂isenschaftlerhe $\langle$ ibersicht der gesummten Heilmitteltehre（Cöttingen，1世：31）：Ines Kunstgemässe Iteil－ mittplerorlnent（Giottingen．1s：fi：－llgatmo ine lusulogie

＇T＇．IRystrong．
Krimef，krow＇zp．Kabl Cimistian Friemrich：phileco－ pher ；b．at Fisenberg，in the inn hy uf saxe－bltemburg，（ier－
 at Parlin，Gättingen，amt lunioh，bat lived privately at Dradern most of the times，and lied at dunich，septo： 140．His view of the human rave as fominer part of at higher and more siritual realm，bel him to fecmitar ideat conecming the destiny of mankim，the development of homan life．and the organization of homan somety，and these inteas lirught him in cennection with the Freeniasons．


 ambl＇rlihd der Mensehbeit（1811），attracted muchattention．
 in Montgmery co．，lat．Nay T，1zat：remivel a thorough aduation at hame and carly showed a talent for phithong． It the age of eighteen he began the study of medieine，but a



















 Profown of swomatio Thenheg and bernatatal Pality in the Thentwinal sominary uf the levanedieal latheran













 shig and extramentinary sift－as a writer and dethatw waw


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Kromer．．hernis，von：somitio sholar：h．in Vionna，
 law in the mixarate of that aty，as woll at the Nonkm









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11．Tur．











ate atrikingly Rusian in their indeereriballe combination of fiyantine．lialian and beal nement－aml in the brilliant






 a monatery，and ennont the whe lerem palace with its





 and a quater：the eque within is thingular，and eontains n＂arly lowarta．

A．I．F．Hasma．
Krem＇nitz：lown：in the connty of Pare．Inngary ； 83 miles X．from limapert ：in aghl and silver mining region （ate maly if Su－tia－Jluggary，ref．i－ll）．Jt has a mint and paprand vitrind works．l＇op．9．100．

## Kresturnhï，b．：：See linuodmuskaia．

Krestorsiou，Vewolon Vammanome ：author；bat in the whemment of Kier，Rusia，Feth，11．Into．In 1N6s he en－ tered the fourterath Thlan hequmen，without having fin－ i．had his stuldis at the l＇nisersity of st．Petershnerg，where her had devoted himatif to histury and philolory．Dle soon triobl sucesofully other brachos of litwature．In 1824 he wente a hianry uf his requment，which gave such satisfac－ tion that hewis transerren th the imprial guard，and he accompand the arderal staff asan oflicial hiverian in the war of 15 it with＇Turhers．His work on the subject was pub－
 rume tohi－ 1 mit（Twenty Mnathe in the Active Army）．
 wit rank with the srat madar－of limsuan lidion．he is a buw rful wriber of the realiatice sthowh．Dis Peterburgshit



 with the life of the Rusian Jewn，as well as others of his nowels an！take have leen widely read and some of them




A．C．Cumbidge．
Kronzer．keniter：a mall min which originated in the Tyral in the thirtemb cemtury，wh altol from the cross
 in various dicman comatrion and butil 1 ni 6 was corrent in Guthern tiomany ace enal to the sixtioth part of a gulden．
 intu．Instria，the hrentzor was corrent as lhe humbedth part uf at guldu．n．

 and trawn．valiequently in Paris，where la grabated



 Was the antho of many fanto ob laryughay and of ser－ ＂ral mongraphe．onte of the mont impurtant of which is De



 Hip heroif the Matimikata（q．é）．



 of longeat mar Manilipatan．Itrechas stome are fomm in －rme protmon of it contres．
Kri－liania：a city of Xorway，Sife Cmathasta．

Kristiansad：：©（＂batothastad．


himself esperially for the work of ronverting orthodox Slats to Roman (atholicism, he went to lome (tito) where he spent the ereatur pirt of cionteen years. In time his mis.
 shaism, of which lut was ont of the exaliest apostles. Ila visited Moscow in 16.5s. Soon after his arrival, however, he was banished (. $\mathbf{b}$ an. 6, 16i61) to 'Tobolsk, muloubtedly on aeconnt of his shan'p criticisms of many things he sab, criticisms doubly disagreeable voming from a laman Catholic priest. Despite frequmt entreaties he was not allowed to return from Siberia mint 16 bit, after which we know mothing more about him. Few of Krizhanich's writings have been publisherl. They wre mostly writen during his exile, and in a jargon meant to be a common language fur all shat peoples, with the natural rosult that it is intelligible to none. llis most important work was his Politics (e vols., Noscow, first printed 1860), a treatise on govemment intembal to awaken the spirit of solidarity among the different branches of the Slav race, aml particilarly to instruct the kumanas. Though narrow and intolerant in its views amb conneited in its tone, it shows that its anthor was much in advance of the society he was trying to enlighten. See Louin laner, Nourelles Études Staies (laris, 1850). A. C. ('oolube.

Kroéger, Ervest li.: masician ; b. in St. Lomis, No., Aug. 10. 1860 ; began musical stany at the age of tive years. continuing until fifteen years old; then pursued a busimms career till he was twenty-three, when he decided to enter the musical profession. Ile has done execllent work in leading and drilling choral societies. He also ranks hiph as a pianist. Ihe has composed much instrumental musio for piano and for orchestral instuments. singly and in combination, also some vocal works. He resiles in st. Lous, where he is oeeupied as a teacher, organist, and Iirector of a choral society.
I). E. Hervet.

Kronberg, Jonans folies: historical and formpainter b. in Sweden, llee. 11, 18.0. He receped the qreat grld medal in Stwekholm in $1 \times 10$, and in 1873 was sent alomad to study at the expense of the Niwedish Government. Anomur his most celebrated worlis are ('leoputra's Death and Iherid and Saul.
h. 13. A.

Kronstadt [Gemm., erown city ; ako spelled Cronstemt]: town of the Anstrian empire, in Transylumat ath miles by rail S. E. of Burlapest (see map of Austriathungary, ref. 8-15). It is an old rity, consinting of an inner tuwn surrounded by widls, its three suburbs respectively inhabited by Germans, Szehlets, and Wallachs. It is thriving amd very neatly built, with many beantiful gatodens and promemades. ऐop. (1800) 32,54!

## Kronstadt: a fortified town of Rinssia. See (Roswidut. <br> Kroos: Sue Liberia.

Kropot'kin, l'etr Alekseevicif, prince: ireacrapher, imid anarchist: b. in Moscow, Russia, in 184? of whe of the noblest families of linssia, thonirh in mombrate dreunsstances. He was brought up at the Colleqe of Pages, where he distinguished limself; then servel for a time in tho army, resigning after thes l'olish insurrection of 1961. Ih next trok up the stuly of georraply, and went to Siborit ant Chma on seientific experitions, about which he wroto reports: The Commane of laris in 1801 uxated his interest in political and sucial questions. Alter a trip to France and belginm he rofurnoll in his country an ardont revolutionist. Ao his rank would pacite su-phiom ammoris the lomer chasses, lee workell undar the name ot bonondin. drawing up the promrammes for his party and giviner loetures to workingmon. Hu was som arreated with lat others and kept inore than twor fars awaiting trial, butid in 1506 he was su ill that he was ramowed to a hospiand, from which his friombe enntrived hisereatu to switzolambl.
 an anarchist paper. Coe hrmolte. In spiste of the ravestom complaints of limsia la was mot disturbed matil lss.

 Swiss (orvermment "xpellad him from the lamd. In now took refuge in Framen, where in Is, is. for lis imembliary
 but was set free in 1sati. Sincte them ha has lived mape quietly. The most inucot:mbt of kropmtins work- alo

 sian and French Prisons (1×-i): aml ite rechmehpan pain (18:N). Ile has also writen mose of the awatunt of
 (himstlf an anarchinty, as woll in eontributions t1) Finture.
 1. (1. ('oorithei.

 mated at the I niversity of l'anmylvana lati: entomed the


 Trinity. New York. During his [asharate in l'himalohia,
 seminary in that city. He has talital the Lutherische Mtrold of New York and The Lathoren of l'hilatlplphia. tle has heen president fur a long auties of gears of the Lothwran Mingsterimm of Pennsylvana ame the datheran Ministerinm of New liak. Ile was one of the founders of the General Commil, and its fresident in $1869-70$ mul 1 anco
 (1s.j) aml Chthern's Lather and the simess (1850), le is author of a work on the loatitules (1mon), and joint anthor of an explanation of lathers (iatechian (1863).

1I. E. Jacobs.
Kro'yer, Petir Severin : painter ; h. in Stavanger, Nur-

 extensively in Eurype and in England, and has recoibed gold medals in Denmark, Paris, and Lambon. Among laic best-known pictures are a simndoy in Grunara, Italian Firld-luborers, trists Brahtastinel in askagen Inu, Musie in the sturlio. and a mumber of views from the lamish cobat, in which the romgh life of the fisherman is vividly baintal.
li. B. Axuergon.

## Krozet Islands : Sue Crozet Twlans.

Kriídener, Juldane, von: pmlitical agitator: h. at Rigat. lassia, Now. 2f. 1764 ; a laughter of Baron von Wietinghotf. onc of the wealthest Livomian noblemen, and a grambdanghter of the famons linssim fibll-marnhal Manich. la 1783 she maried Baron vom Krimber, whom she aceompanded fo Vonice and Coprobacen, and to whon she bore two chidrem, but she separated from her husham in fomen(fuener of a seandal caused by ber tormbert while in Paris in
 Krialener into literature. I alfipip. on lettres de (justuce de Limar if Ernest de fi-, was puldishad at Jaris in 1-0.i.
 stilling and the Doravian bretbren had now the ascemtroney over her mimb, and she appeared in the word as a sister of
 ions rounions in hor hoitel in Paris, and people of the hish-
 lansia was amoner bur visitors. ha invited lace for the grame review of the huscian trous in the plam of that lons, and the sight inspirm lor as the boginainge of the


 and loussia. Notwithotanding bhis autions on the part of diffrent erverament:- she is bulievirl to haw hat mum

 the lenwan forntior, and on fontering her natise eomatry sbo


 ship with the emprras: lout har antas-ian for the Grack revolution, and hor intingeton in workiner for her ideas. ntembent the lassian (ioveromment. She was hamishad tram







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 tion－whh dirat laritain tuhth hofine athl after the war with



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 what cinn the pathered from hi＊works．He lelanged tu

 with the ereat Amandam literary bern who were his con－






 lowelines of his sty when he fremits himself tor forget that he is a muralitior perphet．Iof his centections uf wome the chind ar．the followinte：Somaktelyeke unen（162s）；



A．Ii，Jarall．











 his writing hati burn tramlatel Elijah the Tishbit（1an－



 biegraphy（1sist）．









i．W．If．






 yars was pathed thrmgh his inventions ta marge the work－matil they beratme the mon axtore in the world． In 14.31 he exhitited at the Internathmal Eahithtion in

 In 1 －il a hrecth－laming rithe invented loy him was intro－


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 1：4 thes．whith was axhithed at the Cohnmanan Exposition




Krusemstrin．Abam fohaxx，vin：haval explorer：b．

 British musy，and unterthok，from Aug．©，1803，to Aug． 19. 1soti，a scientific and comanderal expedition at the expense of the lia－sian Gomernment to the morthern coasts of the Pacific．The expetition was a great sucess，and has heen deseribed hy run krusemsarn in his heise um die Welt （3）whe．， 1 NiO－12：transated intu English by lloppner in 1－1：3）．Fran 1se4－2：le publinhed thas do locem Pa－ retique（ ${ }^{2}$ vols），and lituril de mimoires hylrographiques， finur servir alanalyse et dosplicution à lutlas de locion forifique．In ko9 he was mate a vice－admiral，it ls41 an admiral．W．on his estate in lathonia．Aug．12， 1846.
Krolof Ifas Andeeviot：writur of fables and the most proplar of all anthors in his cwe country；b．in Moseow，
 he parmed his bughood in fromburg and Tuer，until．his fathor having diel，his mather moved with him to st．Pe－ tershure in the hane of getting him amphyment．Fur the next twonty－thee yars his carwe was generally unsucces－ ful．P＇art of the time he was a dow mment clerk．part of it he was secretary in different phaces to Prinee S．Golitsyn， or tutur of the princes children．He wrone two worthless
 Tramf（＇I＇rump），beride a few lighur pieces and published one after another three cleyer hut hort－livel jourmats．To－ Ward the end of 180．hoins in Moscow．he produced his first there fables（transatime from lat Fonanc）．So great Was their success that hancoforth he wrote nothing else， While earh new one was hailed with 小elight hy the publie． In 1ste he was given the pasition of assistant at the Imperial Lihrery in St．Peterbure，a simente examety suited to his indulat mature，and this be accuphed for nearly thirty pears．He retired in $1 \times 41$ and died Now 9 （21）．1844．Of his 1 go fables， 56 are transations or imitations，the remain－ der entirely origimal in suhntance as wedl as form．They are damaterizal hy comidarable wit and by trement，though gool hmoned，satire of all classes amb of exinting ahoses，yet they betray a conservative dislike to now ideas and fashons． Though licking the delioncy and urame of La Fontanes matarpieces．their sty fe is now attrutive－it is se natural and＂asy so smple that ans beanat an moderatand then． They have bern translated into many lamgages A few havi been attompted in binglioh veres．and about half have then will put into prase hy U．R．S．Rallaton，Krilot and his Fuhles（Lombon，1869）．Sua also（＇．E．Turner．Situdies in hussion Literature（Lumbn，INs：）：I．Fhurs，Krylon et

 Krylos complete works（St．Petersharg．185 amd 1859），and


Kulma＇：a river of smbern linsia，whith rime in the
 and＂mitios fartly inter the lilack sea，partly into the sem of I \％uf．
Kuhaid（kowlio Khan：a gramen of（imghis Khan： the ermphetar of the empunt of Chima begun by（emghis himedf．and the fommer of the Yeato or Mongeil dyasty whin ruled in＇hina from low to latio．He was lern in Tartary in 1016 ，aml tarly tow part in the campaigns of his gramfather．In lest he sumewded Manga Khan as
ruler of the Mongol empire：five yours later he fixed his eapital at l゙ambalue，the present Peking，amol proceeded at once to extend his sway over the whole of（＇hma．In this he suecoeder！in 12：！．He sent seworal maval expeditinus against ofanm，the last in 1981．Bnt fuiled in them all： and $W^{\prime}$ ．，however，he estended his tomain as far as the Straits of Walavera and the Euxine．Tha＇celebrated Veme－ tian traveler，Marco Polo，traveled extmsively through the Great K！an＇s dominions，an！gives a vivil daseription of the imperial eomert．（See（＇atimis，and The Booh of Ser Marco Polo，edited by lule，Dd ed．Lomelon，185̃．）Ḱublai died in 1s94．

Kinch Brhar＇，or Cooch Bahar：a fembatory state＇in
 N．，and lons． 88 4s and s！ 505 F．．and cntirely surrommdeal
 It is a miform and fertile plain，formed from tha alluvium which descends from the Himahyas，and thoroughly waterod by afluents of the brahmaputra．The fundammital pam－ lation is a Dravidian race called Kutch．The principal products are rien，jute，atul tombero．The climate is wot antlunhealthful：malarial fevers ant cholera are common． The eapital，and only place of importance，is the town of Kueh Behur． 250 miles N．N．E．of C＇alentia，on the Tursha，
 Pop．10，000．

Mark W，Marbengton．
Kijchenmeister，Gottlob Fanemaica Henvicif，M．U．： b．in Buchheim，大axony，Jan，22， $1 \times 21$ ：hegen his ！rofessional studies in 1840 in 1 depig and Prague，receiving his M．I）． from Leipzior Conirosity in 1846；satlled in the latter year in Zittau．Ile hecame interested in the nature and develop－ ment of entozoa，and his investigations did much to chnci－ date the metamorphoses of intestinal worms．Ile was adi－ tor of the Zpitwchrift des nombluwishen rhiruropn Verpios
 and of the Allgemeine Zeitschrift für İpalbmiologie，18it－ \％．）．Ilis important work（In the Atmimel amd Fpgetahlp I＇urasites of the IIuman Body，first published in Leipaier in 185．，passed through semmal editions，umd was translated into lunglish．He was the author of a mumber of works on melical subjects．

S．T．Armstronif．

## Kndagu：Sue Jravidan Langlames． <br> Kudumbar：See Cadanba．

Kuenen，kïnen，Abqainay：theologian；b．at Haarlem． Holland，sept．16．1sos：stulled at layden and in 1853 was
 in Duteh，at Levden，in 3 vols．，Fistorico－critical Inustigie－ tion into the Origin and collection of the old Testampnt
 Vol．i．，1886）；in 1869－70，The Religion of Israt To the Fall of the Jewish State（Hing．trans．Lommon， $1824-75,3$ vols．）： in 1855，The Prophels and Irophecy in Israt？（Eng．trans． 1875）；Nalional Religions and lniversal Keligions（Londan， 1882）；besiles a number of minor essays and pipers．lle was the great leader of the so－called critical school in hib－ lieal matters．D．in Leyden，bec．10． $1 \times 91$.

Kıenlın＇，Kтйи－lйи，Kılkun，or Kırkum：a monn－ tain range of Central Asia，which commences nur the point of lat． 35 N．and lon． $75^{\circ}$ E．from which the Ilimalayas，the Hindu－Kush，and the Bolor－Tngh radiate in thre different directions，and stretches eastwarl，forming the northrm boundary of Tibet poper．The eastern parts of this mome tain range extend into China proper，under the mames of Tsing－ling and Fitnin－shan；the western part，genarally known by the names of Karakorum and Mutugh．rises to a height of e3． 000 fect ，and is covered with tremendous glatiers．

Kufa：town，or rather the ruins of a town，of Asintic Turker，in Mesopotimia，on an aflumet of the Euphrates： 88 miles S．of Bagida！（see map of Turkwy，ruf．r－，$)$ ．It was founded by Cmar，who made it his residence．and who was murtered herr．It som heeame the suat of Arabie lurning， and the anciont Arabic eharacters ealled（＇ufie recoived thoir name from this patas．When，at tha enil of the orishth cem－ tury，the resileney was removed to Bagdal，Kufa lerolined． and sank inter ruins．

Kufle Writing：See C＇vfic Writino．
Kugler，kookhler，Fsasz Theonor：writer on art ：b．at Stettin，Germany，Jan．19． 1808 ；stndied history，fhilology， and art in Berlin，Heideliperg，mod Italy，and was＂plomed Professor in the Fine Arts at the University of Berlin in 1833．His Mandbuch der Geschichte der Mellerei won Kon－



 lish．IIs delemen Schriften und sludien Eur hínoslyp．
 essays on the history and phidosophy uf the fine arts．Vury little interest，on the emotrary have his dramas and poems， and his Ihistory of fropherich the fremt，thouglt the lathor is
 learing three completed volumen of a large work on the（for－

 Kionigslerg－in－1ber－Neumark，Brambenburg，Prusia，Nov．19．
 bowame temelar at the liabnincha Gymanium in Bprlin in
 18s1．As enlitor of Zeitwherift für vergleichende Sprachfor－ schumy and beitrage zur reryleichenden spruthforschung be has contributad mach to the growh of comparative Whilolory，aml hy his thit Merabkuaft des Feures und dos
 Mythenbillung（1sta），as well as ather researehes in the？ same line，lace mangmated the new wionce of complarative mythology．Jlis theory may be brietly smmed mb by ay－ ing that he sought for the origin of mythe in linguistie Thenomena，phlyonymy and homonymy eonstituting the principal formative liaturs．Revised by A．（icbemas．

 lin，Iaris，am！Vímma moner Whehler，R．Wagner，Wiber， Hanle，Lebmann，Virehow，（＂haude Bermard，landwig，
 and M．I）．in 1862 ：from 1861 to $1 \times 6$ was chemical ansist ant in the lathological Institute of Berlin：fromistis to 15.7 was Irofessor of Physindory in the Cniversity of Am－
 reotor of the physjolomionl institute in the Chitersity of
 tienharly in investigating the museles，nerves．ambin jhysin－ logional ehemistry．Amones his more important work are Bpiträge zur Lehre som Leterus（Berlin，1Ns天）：Myologesche

 suchunyen ӥbor das Protoplesmue voul die（＇ontructilitāt （Leipzig，1sfi4）：amil Lehrbum der physublogischon Chemie （Leijzig，1866－68）．

Kiilner，kï ner，Liaphafl：grammarian：b．in（rotha， Gemmany，Mar．20， 1 N02；was teacher at the Lyomm，in Ilamover，1894－63；limd in the latter city，Apr．16．1ヵ，心． I Ie was editor of a lemmed edition of（＇ieervis Tusculan／tis－ putations（5th ed．18：4），but is chiefly known as the anthor of the A usfïhrliche（irammatik der griechischen sumetere（2
 malik der latrinischen sprathe（a pusthumons work＂pub－ lished by his son in 2 vals．1sid）．Wis schoul grammars，once popular，are superseded．

Alfred filuman．
 commentator：b，at lubuig，Cermany，dan，？176s；stalies！ thenogy in the miversity of his mative city，where let leegan to leeture on Wibliond Exageais and Memmembtice at the age of twenty and hecame Profoseor of［＇hilumphy in 1 b！o and preacher in 1796．In 1N01 le atrepted at profmeorship at Giessen，and remained there until his doath．（10t．15．1stl． Hisuarliest wrinal work was on Hessionic Prophecis（17ar）． in（iorman，after whioh he published（in 1ra4）hotes on the New Testament from the 1 porryphal howhe of the olld Trs－ frement，in Latin，and in 1709 The $I$ salms in $1 /+t$ er，in crer－ man．The grent work of his life was his datin（＇ommentory on the Ihistorical Books of the Jru T＊stument（Lecipas．A vols．， 180 ar－18：the me．14．3）．which hat great pepularity． and was reprinte！in lanelon（ 1 s？ 2,3 vols．），with the ablition of the（ireek text．Kïhnoil is erodited with many of the hest gualities of a hihlio：al interpretar，athl helle a midelle gromad botween orthorloxy amd neobugy．

Knka，koukiă：fown；in the C＇mentral sudan，Africa，the eapital of bomu，a few miles from the sumbert shore of


Ku－Klux＇Klan，ur Ku－Klax（nammi，it is saill，in imita－ tion of the elick heard in encking the ritle：klem is the ward clam in a new orthograply］：a former aceret asometa－
tion，in tha L．S．，in suraral of the sumthern states，formod





















 ©The Ham of the dhathy har saven tha（＇untrys）of















## 























I．．l．Kisí．




















 Fnkian Jutians，flwellinge N．of them，mure than they





 trilach hate the entom of＂feotine the spitit of the lhat＂ with pimole for a sar followior the leath．lafantiejde is






 to at very limited axtent．Sombe of the triboson the khmath



 ormanzation ul man uf the linhatapan tribes is pat riaredal，



 Smoner their wremonials is a danere of phonty，performed

 bejur compledled to assist the squaw in their arions lators， and the extromely ared amd deverpit amoneg the liamonaman
 ownsons．Thu Kinhatapan wor once a mamemors jeople． but have steralily dimini－h．el since the aldernt of the whites







 of somon；settled edibetly along tha mblalle courses of the
















 1）［paly ： －










 11．in 19．8．

I＇．limoth．



 －


 the struargle between Jrotostantiom and Ramanima which was carred on in Jrussiatand later in the lomman cmpire． The object on the part of the（iovermaneat was to control the educatimal ambecelesiationl apmintmants．It firm the

 1874 mate matriage a civil rite．The Josulta were＂xpellal



 Pope Leo XIII．，there was and attempt at compmomine．In the following year loalk renimed：in lost and lsize the faws were morlifiol，and in 1 ssig imputtant concesions were made to the Roman Catholie Chureh．

Kuns：a town of Jersia．See kom．
Kumamoto：a city in the extreme sonth of Jipan：situ－ ated in a lamblockeif bay on the west conat of the istand of Kínshin（see map of Jiphin，ref．s－s）．It waz formerly the eastle－town of the family of llosokawa，damam of lligos it is now an importanf military amb educotiomal center．Acros the bay lies Shimabara，where the＇hriat ians mate their lan stand in $1633^{\circ}$ ，and were finally crashed by the abd of＂Joutel2 eannon from Ilehima in Suracaki．Jn the immediate neirhborhoul of Knmammo is the huse crater dit Aco－vana （ 4,100 feet），the lant cruption of which！tordi pate in 180.3 ， The castle，once of the finnst in the embire，was sucecstinlly
 smma insurgenta．In Lns！kimmanotosulfered from at severe earthruake．］op．4t，3st．

J．D．Drxon．
Ḱmmann，koomonn＇：a julitical divinom of the North－
 N．lat．and between is and ol F．lan．Area．1？．tist wh． milas．It is mostly covered by de llimalay Mombains． with the excepton of a belt of lowlamd trom ：to lom miles hroad cextemding aloner the font of the momatan rimere． Two erops are gathered hare warly；rice，sumat，abd in－
 bles the other．＇j＂he tea－pant hastren intrenducerl with sus－
 feet abuse the sea．lievieed hy M．W゙．Ilamintos．

Kumpuat［Cantonese for stambar！（＂hin．kinkiuh，liter－ ally，gohden oranere］：the（etrus jupmind a spectso of
 now grown in the southem prirs of the 1 ．S．＇l＇he shmbs is rery small：the fruit is of excellent quality，amp is almat an inch in diameter．

1．I．1B．
Knndnz，koon－tlooz ：a small provinete of Sonthern－If－ ghanistan；between the Ima Datria and the Ilindu Kinsla， with Jimlaksian on the E．and tha Balkh ematryon the W：： formerly an inderembent khanate of Tattary．hit maw own－ ing allegiance to the Amir of（＇alml．＂The griatere fart of the province is monntamons，hat there are some fortile val－ leys where excellent grain is raisml．＇The capital，kiumb\％ has a jepulation of 2.000 ．

## Kumiak：see Chmookan Isduns．


 lived $181: 3-19$ in Paris，entraged in editiner flambulatis and Bonphanl＇s butamical coblloction：wan ajpuintald leofesond

 Enumeraten plonturum umnluen hurusqup ratniturum（o） vols．，Stutturt，143：












 freeions stome in matsazinus．

 scholar；b．in Artern，Saxony，fuge I．1Ftt：stadied at 229
















 tion on the way．Hare，while strusybur hatid with sictanes
 Whose patronare helpell him top pursum his sturlew of Ital－
 he was invital to seworal of the（ictomat contro．Ilincommis－



 this bomor．becing of a timomotan diemaition he liediever a falae repurt that he was in damere af heing promecotual in
 Where be rematinal，mowitheanding the imitathan of the

 at Xuremberen in 1 ido．

U＂，J．SIILLMAS．









 writing in the limssian langration

 This fongur forms a bramely of the lamian Erand of lam－











 the languare＇The mast imguramt of that are the Kur－















































 atw hidhly wawnel－the wats fir their silky hair，the

 whthe dearpiption Ximphan sivia of thom．





 Sinm they are all writan in the ataliza whath is evenerally








## 



 the Sultan of Manat fin the purpose of lamtine the lime



 What of the ishand herame lamian propirty during tho
 limatly，the smokery hatane of the numerome intion wh









 it numbers．
d．M．Manes．


















 Parky．In first kilu－ian jomral of its kimd，of whish，from





 in allation to the dark－thar color of its water，which con－







 all to the mathwat and entwarl，wathing the whole sonth－



 it－whecty and lwaming mored in the wam eastery drift

 mernlian of 10.5 W．Cimpmain．


 marked hy a umben thomal chanqu in the waler of $10^{\circ}$ to 20 F ．On the matheat atge the limit，as in the case of

 day in differnt patco madnatly diminishing to 20 milhes a diy．The easterly drift of the North lacifio，fommerght uf the general ocanice cirenation irrewnetive of currents， is p＂pulaty confusel with the Kura Siwn，which it suphle－ monts，amd carics the warm water the coast of North－ west Amorita，where in lat． 50 N ．it tivides，ome fortion raminge s．puralid with the const．and the other N．，and curving wown with the shore，is finally dissipated in the varinty uf the bistern Alantian ivands．
Fluctuetions．－From the（rin of siphember to March the morthein ati－mbision blaws with sreat strength in the reginn where the lime Niwe origimats，and being di－ rectly oppente to the direction of the corrent，the lather is fur the tme ahmes ablatated．In May the current he－
 mum，diminhaing mat ©ctoter，and being litthe noticed luring the wintor．Buring the perion of its llow the cross－ setion if the Kuro Siwo is comsiderably less than that of the（iull Stram，the whole mass of water at or above $50^{\circ}$ $f$ f．is harelly mere than half as mon as that earried by the Gulf stran．It 44.5 fathoms the temperature of the kuro Siwe is 50 F ．，whild in an malugus part of the Gulf citam the water al the same depth is fol F ．The Paritic stretan las to aross ！ 0 of lomgitulde，ther Gulf Stream onty 5 ：the fomer is cherkel by the anti－monson for about unt hime of the valr，while the Gulf stream is fradially cominht．Takinir only tompature and dura－ tion into consileration，the ration hatern them woulat be
 tance traverath．It i－therefore obwings that thengh the
 the sume relative part of their respedise nevans，and are due to smilar camos，da parallel hetween them is other－ wine fard dran umplot．













Onatsevich，（oll．Ohs．（1871－Ti）；Dall，Am，Jomm．Sict



Kurathere：sume as だarasu（\％）\％）
Kursher：same ati kiarom（\％．ro）．





Kursk：the capital of the whomment aliurk．Fon－

 rope and fruit，and many goon eduratimal infitntions． In the ndidhbuthomb of kurse an ammal fair is hod after Easter，whith is whe of the greatest faits of the comantry

Kurlz．Jonasx llensem．1）1\％：Lutheman themegian：b．


 there died Apr，2h，1490．His hext－known work is his Lethr－ buch der hirchengrschichte för stulioemde（ailan，1－4！）；
 London and New Yonk，1şy－（\％）．

S．M．J．

## Kurtzelari Isamds：see Eqhivabes．

Kusan（alsis calleal by Lenijand（lanke Cook－Koo－oown）
 prising several tribes，Awelling in what is now the state of Orgom．The kusan Indians inhalitem at hat four vil－ lages but it is impessible to tell whether pald village was nectuped by a clitinct tribe．The Mallak lwelt in me of
 Copuille river，on the north－iele，an the site of the pursent town of Ramblph．The Nagmi，or Nammi，were a pemph dwelling in a village on the sumb side of Compille riwer， about where is maw sitmated the town of Bandon．The Athapasian hadians twat Domey that thay rouk mot muler－ stanl the Janguage of the Naçuni，which strengethems the supposition that the latter wre not of the Athapasan stock．For this and ofhor reasons，Dorsey amigns the Xit cumi to the kusan lanily．The Melukitz villap was on the morth side of Coos Bays．The Amasitch or Ilau－nay－setch villare was on the sonth side of Coos bay．Julging fron analogy（Mulluli：Mrhbitz and Vicsumi：－1musiteh），these names have a lowal refrence，the probable meanins of the former bair being nothem village，and that of the secome pair southern village．Nothing is known of their histury and reneral characteristics．Most of the survivers of this family are gathered upol the silet\％reservation，Oreman， but their number can not be stated，as the ageney retums are not given by tribes．

See Baneroft，Nratice Frures of the Parific Comst（i．，307， 1874）：Dole in Tndian Athairs Report（300 ision）forseys MS．Alsea，Mulluk．Niltume tumb，and Tutu tômer vonth－ ularies（Birean ol Ethnolory，1884）：Jorsey，in Joumal of Americtun Folk－lore（iii．，D：21，1800）：Lewis and（larke bek－ pedition（ii．，11s，1814）：Powell，in somenth Innuel heport
 of North America． I．Owey Ihorsiz．
Kotsatsu．kou－satats：a village in Japan，famed for jts hot sulphur－springs：sithated iner 10 （ miles N．of Tokion． and close to the ative wolano isama－yma，at an eferation above sea－level of $3,50 \%$ fect see map of dapan，ref．\％－1\％ From April to Getober the baths are thronged with patients． from all parts of the coupire，suffering frompanful and dis－ ghating diocases，wha are put thrman a swere treatment according to a rigid system．It is whe of the sighte to are the patients entering the baths，the tompratum of which
 sulphate of copler．arsenic．and brias．

Kuskowimo ：a river uf Ahata：the somal in sizo in the territory：ramine $s$ of the lowem，and probahly paral－ lel to it，hat its coman is vary impuratly known．it conp ties into the bay of kuckokwin，burint Mas．

## Kinstenland：Fere letran．

## Kustrin：See Cumpmes．

Kutahia：：department（sajabl），diatrict（wasa），amel town
 （ane．Cotynimm）on the Pursak，fomerts fanmes for it mosfues and baths and for its activity．in a dilaphatem











## Kutch：sime ghompativi．












 sulto which he ortaned in tha lan－aian aimpaion．In Inar．



 the evalation of Masen，Katuonll hatly paranal the Fremelo infleted on them great hows in the battlow of Maln

 Fromb in Prusiamsilasial he dieal of a malignant feror at Bunzlan，Apr．©s．14 18.



 feswor of Natural somber at Sorthanmen． 11 is principal



 same fundanental ithas an these of larmin．

Kutzhown：borough：lartis co．．Pia．（fur lomation of connty，see mal of Pumplania，rof．i－11：on the lhita．
 an iron and limestom wem：is the shat of the Kerstone State Nomal school ；and has an iron－fomatry，carman



Ehatur of＂P．sthiot．

## Knyp：Sece Coyp．

Kwandrow－foo：the eapital of the prontere of kwan－
 and the seat of the vicery of the two Kwane．It is alde the ehief city of the depariment of the same name．

Kwames，kwang see（literally，Proan or Great Woat）： an intand province of China，lying W．of Kwarthan：So of


 Which has its hemd－waters in Sumath，and its tributario． the Yu，the lmne，and the liwed．




 of the manatian－？


 the．Kinth river，which，at samblat，unit，is watro with































Kwan－y





 shat ho．






















 the world＂：anl mathr＂thers．

Kwan－yin plats am impurtant part in the dentrine of the
 fatron saint of tiont，where the hamb bamat is resurded aty his incamation．

















 K：A．



Sumblhsan th il．Commelion trilh IBrithmemism iend Mindè－
 dariker，trans．by Kerm，in＂Sucred lowho of the lisal＂（1）x－


lj．IALILEX．




 chater，and the luort．Which llows lo．into the Thare tiner lake．Many imbepentent abrifinal tribes are atill


R．I．
K woratemindians：sen Quonatian Ismass．
Kyanite：Ste C＇vante．
Kyank－I＇lyu：a district and rillage of Arakan，IBurma． The district inclumes the Nitmls of Ramri mul（＇hedouba With a fatt of the meighturing comat，and back to the moun－
 on the nombern emb of liamri．Pops B．000．Near it，at the northern foim of the inlaml，is a row of six mmil volennoes．

## Kymrje（kin rik）Literature：see Welsu Literatcre．

Kymry：the name riven by the Weath lo their mation It is frequently extemded to hae entime branch of the celt ic

 －f Cumwill．（＇matertand，and siathelyde．Attempts bave heen mate to prove that the Commaria and the cimbri were of this riace．hint the evidenere fails for withlioh this．＇flare is rason lubelieve that a dreat part of the ancient british race was kymric，and many ligntic romes aphear to have
 Willes．

## Kyoto：ふe Ќworo．


 before 145\％．Ile was the am of a merehant，and when nime yats ohd visitad Vomere．It the age of twelve be was takn by his mandfother to Naples，and servel as a com－ meteial affrentice antil he became of ates，when he went to

 The sight of ancient ruiss and remuins hat early expoted in






 son disprast）．so that only frambitis of the originat have

 ＂ras reaciareh hate slawit that his transerfitions were bomat
 the true hammintio spirit．and，self－tamght though he was． rownatand the superor value of inseriptions as docmant－ tary evitence when comparal with Ns．testimonys．see


 155 f ）． Ahfret dicidemas．
 firn worl in the friek of hyrie ele




 fine this reanm the term is apdied in the Jumbean（＂hurch （1）the repmoses but wern the monmandments in the（come

 day where of the（＇hareh ath in the sorvere for the cedehra－




levisul ly W．S．Prory．

the twelfth latter of the linerlishaluhalat. Form. -The prosiont form is that al tho
 the 'hatcialian (imeok alphaturt as $\downarrow$. This warlicest dreek form of the lothor ayturas to have hen froserved maly wilhin a linited cime of commanitios in lisularn
 ern Loeris, and Chatchis in Euham. Elsewhere, wern in the
 the inverted form $A$ or $\wedge$. which later, with the prevalonmont the lonie alphatert, lpeame the stambarl Cirerk form. 'low letter was randuad from the I'hemindans in the form 6 .

 name lumed. "x-mond.

Stumal.-The sumal most commonly denoterd by is a
 the tomge-tip with the wims at the josition for $t, d, n$, and
 normal $l$ is donbtesa bilateral, Imd many individuals prom nounce it, by reason of some pectilarity in the conformation or comblion of the teeth, as unilateritl. After voicoless initial eonsonamts $l$ is commonly voicelesa, ac in pleut, slowd. slutp. The Enorlish $l$ ditlers from the dierman and Fremeh. in that the back of the tomene is slightly more raised. givine a half-guttural qualify the somme and tembling to chttural modification of a preculing vomel; rf. coll, bull. tall, and sixteenth centary spellings like ould (old) hould (hold). It may be used as an vowel-r. er. in liflo (pron. lill). before $m, f(k), k$, it has been last (chindy since the soventomth century). Hhough retamed in welliner: thes in bulm. calm. psalm, pulm, sulmon, half, calf. sallew, pholli,
 of accent in the proclitics emold, shomld. In rowhlthe $l$ is merely graphise, attor the analoge of umold. should: of. tha older spelling coulp (sisteenth century). In rolomel the lirst
 century), from Fr. cormunt, was displaced umber the inlluence of Ital. colonnello, derjvative of colomm, cohaman.

Source. The somal lats eone into Enerlioh frome the greatest variety of soureps. hat it has come in gebleral withont ehangr, being a peculiarly permament elpmont. Thas
 native words; as in light : (hemm. licht, rf. (ir, גєukós, lait.
 Lat. folium, Gir. púdiov: coll! : Gmim. finlt. Ifl. Tait. Ifelif:
 (ir. кúкдos. (2) 'lentomie $h l<1$ ndo-Enrep. $k l$ : as in loml $<$ O. Enes. hlüd: Germ. limd, of. (ir. kגurbs, Lat. in-clutus. (i)
 Goth. fulls, ef. Lilh. pilnos. Lat. plomus. (4) ll < Tiratnaic
 suljan, to fomm. ( 5 ) Iatinl $l$ in file $<$ (ling. fight, from Lat. tégulu: mile $<0$. Enwe. mil. from Latl. milio. (b) lall.

 In Ioan-words of rations sumbere on (imeek in ethluth =
 aleorep, etc.
 chemistry $\mathrm{L}=$ lifhimu: $l$ of $\mathfrak{i}=$ libore pennd storling: in astronongy $l=$ lomstitule: in mathematies $l=$ lexpatiohn:







 and pence.

Lamelamd, of Jollatud: an islame of lomamark, in the Batice separatel from Falster by the struth of wature allat


 "Thw primoipal towns are Marion and Sankow









 ent bianish law coulas.











 lamanser elamed to have raedibed tha spirit of duhn the






 ances that he son withlew. amd fon sorpal wars traveled





















 of immorality aratinst his towhinge. hat withont rianom, hix









11. 11. -





















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 10．







































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 tratio－math。＂












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．IMES A．ẄHTNES．


 Which ita ehivalrons womige is repmendited in the form of






di lat＇s（iotsmil．
laborins．berwis：：Joman knight：b，in lo．j b．c．：





 มiven on 小是：


D．Warbex．











 teristic of them hoth. Bexi, Lue Wheleme.






 those just mentioned in that theid artimiation is hatwom

 the bi-labials. seme lonemetes.

Begi, Ife Wifelik.
Labiartat : see Mant famay.

 stutied haw. hat werifen toderote himedt to literature and mate his debut with the collection of sketches ha 'lif des
 but was bet known ax a playmigh, having prohnow, s.an-





 price Murtion (with Augier, 1sinit: Lete chef (with buru, 1505). A cullection on his dramatio work allaned in 1sig with the title Théater de Lathiche ( 10 valo.). He was
 tant e3. 1 sss.
hevised hy A. li. Maral.

 ant to Gank, and diatimguthen himself in it bor he his two sirtories over the 'lreviri, and in 50 in the campagin agamet Yoredngetorix. Enturing public life mater the anspore nit
 with Pompey when the divil war broke ont. being monand [puld to these of (asares soldiess who fell into his hats at the battle of Surrmohime. After the defeat of Pharsalia he fed to Africa, and thene to spain after the derpeat at
 by his mistakes the battle was lont. J, 4.8 B. 6
herised ley (i, L. Jiexidraken.
Labiénns. Les Propos de: the title of a bitter satiriwal invective against the second fromern mire and permally
 mediately after the pmblication of the tirst volume of Sipo-

 Angustus, againat whese usurpation and tymany he prijetually chafiol. Il, is ramesented to have writien an history of his combtry of which her reth passiges in sectet to his friends. His granifather is satid to havesersen moder olulins uf to the crossing of the labicom. and hiv fathor fos haw jeined the Parthins rather than suphert the triumbians. This was sumpent to point to Vietor Ingro. Whene father win
 sorsed the empire the coindidenes is nut camplate. Tha Duc diAmale wrote a lite of the great conde whith wa*
 cated. This was a phint of similarity with Lahbims, who. however, hy hyudhenis. combld mot hase been of royal "xtraction. The anther probally did mot mean formint detinitely to any imlividual. "The apparame of a whane of
 of the spleen of Latiomes, with whith the sationemphomes.





## Lahthm: Sea Extomonney.








 diorgio in I Purituni, making a most powerfal imples-iom.














 184:)

La'bot [wial. Fre from Lat, homp, lalwe wil, work]: int

 in the produrtion of walla and the mat impertant hlo-


 I'plo a bery fow pian the wathe of al emmmants hay pro-





 An impurtant stop formard is math in the gruras to tho


 prempe than in that which pereedel. I further andane in made in the change from the pa-taral to the arrieulturat


 the presibility for harg aceomulation of cepital and for it-

 crommonity.
With the sumatitution of pastuman and acrichlomal moth-
 latur herims. This lather is at tirs sumpen in athenet all








 hom is subatuted for that of tear. Shate batm is in mamy




 wate thath athom any liad of frect latur. S Letwen dif-

 vilual treneth of the latherepolyty wement of the power of "remization. The thin+mes of the indivaduat

 the" ambition of the laborers as a clase In the comarios where the lahmers arn deticiont in thea bequeds. thmurh

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The laboratory of anatomianal zälagy.
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The labmatory of ophthatuologe
Tha laburatory of toratoloes.



In adalitun there are mine athliated laboratorios situated in varions garts of France. It shomble te butel. howeser.

 -ity of lanes, that of the colame are leramer and that of the

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## F. I. Nı日ons:






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Mistory.-Originally the whele of luhmar was attaeded
 the EuF Atliatio cenat of labimbir. This arranement was after-
 laty Company hat for a houghonal purind the exclusive rieht of tralling with the halime of that part of Labmar whith hat rivers flowing into the ind frem which the company tow it, name, and whitlo is desimateal East Main. In 1sio. however. the complls surcomered all its rights, and


Aremeriner to the Napthen Sugs, biom and bric the Rad discumarel latratur ahnat the war 1000, and momed
 Mrn disenser was lulm Cahnt, in 1495, the year in which he dimencer Kanfommani. I ficw yors after the Basplas, who were anong the mat darinir of earty marjtime adwenturass, were bmplosed in tibhig on the gulf
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 amme the Retamo, and then the Premel and the British.



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 hatmand, or "athorr" lame."
M. Harver.

Lahradorite (also caldod Lenherdor spme and opalescent
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Labuan': an indaud of the talay drehipulara. 6 milen
 of whoms 31 were of leritish parematre phe indand wat
 (Fomeor). Its whef importance is dobised from ita eent ral position with regame to burmeo, Anmam, the Freath colony of ('imborlia, and the spanish eohnome of tha Philiplimes. 'There are two ports a waml supply "f wator, and abmonant





Labyrinth, Egyptian [blbyrinth is from Latt. liflyrintlus

 rains near the ent ranor to the Faym. brumedy thinks that the meaning of the feryntian hame was "temple at thre month of the lake." It was enonstrueted hy . Imenemblat JII. of the twelfth dyatsty, protrably in the shape of a homet

 contained twelve courts, sis fitemus N. amd six S.o with 3,0 ono rooms, half abrove and lailf bemerath the gromal, and was more texasive than all the buillines wh the dimek. strabu also visited the structura. amd hat left a briof desoription (xvii.. i., 3i). The only bendnt remains ant stme chips
 than any Earytian temple. Forronturin it wan uncl an at
 of the workmen ari -till serom. ('Hiline li. (indiett.
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 ofler of reptites, ar, mare pronery, amphindas, the labyrin-















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 Wher and in 16.30 wan male king's chambratath. Ite wrote



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A. 1i. Chamelt.



 from the Mahatar come Ira, Itfal. iniles. They are of
 bunt of themare mer haren rentio. Betuse of the dangers of surmandige ref- the Lacerdives are lithe frequented by havisators. The mative ate callod Mophays are Mohammedans of Arathan dexemb, amd liwe in stonie lats. The only commeree is in conai-fitur and buth-mata. The southerin
 They weredienverd hy Vaco de (itma in 14!9; the north-

 butientir lowly of intusiwe ishems rok. When moten reck risu though the emble crast, it matrenth the surfier athl how ont. on it may stop at some liwar level, opren fir itself at chamine hy lifting the werlying rocks and there emberal, forming it lacolite. The ried of lacedites, hating cowled shaly aml moder ereat pessure is composed, like granite of erystals viable to the eve, and is compact. It reists well the fores of emon, so that in a reqion umTherging rapind degratation lacolites are at to constitute
 jn. Ahajo, Stanish, aml lilk Jomutame of the $\mathbf{G}$. S. See (remogy of the Mrory Montuins, he (i. K. (iilleat, and Lampilitic Monntain Groups of Colorado. C'toh, and - Irizomer, ly Whitman Cross. Fourteruth Ammal hiport C. S. Cimbugichl suray.
is. К. (illbert.

 mutal "phwork of thral. twistal, pitated. or woven into fattoms. Iteclf comparatively malern, hae iselerived from two most andent kimbe of work, moting and embroidery, the former of which wa- ued by the bievtians to omament the horthers of some festival gaments: imbeed, the network uf He brads found on mumbim may as it was made with
 Lomans bertered thor whes with controndery called, when "If superior 'fuality. opmes Phrygianum, from the skill with which it wasexerutm by Platyian workis. Among early Chritians it was chstomary for women to wear reils during puldie wordip. and writere of the scound ematary complained that tow offor these enverings ministered rather to sanity than to mondsty being freghenty of metting interwow with frin or silver, through which the fier was visible.

 in his coilin, and sill preserved at Durham, are goom speitur is of his work.
Lan" may be dividul intutworincipal clases-point amol fillow lace the former turime of mad the gromer antiquity. We can mot decild. whon paint was irst maln, so mery aralually was it acolved from moting and embraidery. with whin it is often ennfumben in obl reoter The latians fondhly derived it from byantion, suce its earliest de-
 "heared in cemmore with the (ired empire. "The ohlest

 of not teal aghars. mate in the ortinary way on a mesh, then

 liner were lat an the netting and sermed io it hy embroi-
 drawiner themeds in a piace of limen and fatering them

 callal yamtion from the pha of its manamentre, and a paltorn wa-male hy arwine round with hatemhole stitul
 the rat anat. By derrow, skillon workers arrived at
makine the thick part entirely with the mordle, nsing variations of two stitches (fyiss. 1 and 2 ), similar to those in mundern biant. 'The name " cut-work," thongh intpytapriate. was long retained, and as late as 16.10 was applied to latal-
 iall lace hy Jolnt 'listur, the WritHer Pret, in his IThyse of the Nimdt. limhomidery, ladis, and cat - Wark Were oflon come lined in (hla piece, squates of darmed metting altematimes with simares of cut and embrodered linen; and this work, which was aser chictly for lange articles, such as covernets and attarevoths. was sometimes white ar mbleachorl, sometimes rarime with goha, silver, or colored threads. The earliest pattern-how extand diate from the sixteentlo century, and are witronely rare. The best known is that of Vinciolos a Vemetan (abmut 1612), whonve new designs, besides mpublishing many fonm
 trones de Lingerie (Berlin, 15:5): Knitting and Later I'st-
 ing a curions frontispicer remesenting a warkrom where an aged woman is dirocting several young pmpils: La Protique de thiguille imbustriouse, Nignerak (160.7). 'The dusigns in these and contemporary works on the sume subjeet are cither geomutrical or attenpte at depioting sacred, hin-
 and the Jragon to be worked in lacis: Mignerak shows low the seasons, the elements, the death of Lacretia, wta, may lue nore or less adequately represented with the meedle. In the South Kensington Musemm, Lomdma, a hare fiece of laces in many compartments contains in eath a Bible pisture wronglat on a netted groumb. As jattern-books wreexpunsive and easily hamared, it was ushal for ladies, in the times when nembe-imbustry rankel as a cambinal female virtine, fo preserve designs and stitehes by working lace-simpless or sim-ehoths, whel are kept as heirlomon in many fanilies.

In the sixtenth corntary lace became a rery wactid ornament of tho dress of both men and women, and it is frequently mentiond in royal ediets ant accumbtx: ." sures of volowe (rollow) latee were brasht fion llomy Vill. at a
 the wearing of "white woorkis, alias cut-woorkes, mate leeyoud the sear." stubtes. in his denumeiation of "ruffes," dechares them to be "eloged with erohd, silver, or silk lave of statedy price wroutht all over with needle-work, surekled and sparkled here and there with the somme, the buone, the starres, and many other antiquities strange to lubuhde." Fror thase minch-reviled yet long-trimmphant artieles of dress, pillow-lace, being liahter than $1^{\text {mint, win a }}$ favorite elging. This work. usually supposed to have been invented by Barbara Cttmam, wife of amater mindr af sit. Annabers, in Saxnmy is by Jomph semmin prommanemb of Italian origin. "Fromintaly," salys he, "a knowledme ul the art passed into France, whence it was accuired by the lanemakers of Flamers." Be that as it may, Belrium is now the special home of this beantiful fabrice. 'lab lace-pilluw is a rommal or wall bomd tomang the base of a hami cushima: the worker places it upon her knees. lays on it atrip of parchment priteked with holes which indicate a lacr-pattern, and sticks a pin theoumb each hole so that its juint enters the pillow. The threat for making the lace is womm? 1 , bobbins, small pieces of wool, lmene, or iwory about the coircumferene of in ordinary lead-pencil. haviner rommd their upper ends a groowe or neck to receive the thread; be the twisting and rrusing of these the lave is fommed. 'lus ground or mest is made by plating (Fig. :3) or twisting


Fig. 3.


Fl: 4
 by wewving or chothing (l'ig. 5 . 'These figures, as allm 1




 nawount. 'The leadiner lines ul' the pathern are sometimes marker by pinas with ratured
 colamal habbins. liarly pillow-late, likn comtempromy ["int, wan ol atifl Nexign, and may be comparied to the more furmal of monderin croclated edinge. Thwarl the clase of the -ixwenth century lace of all kinds changed from
 barionn of 1 Indbein's pieturem with thase al Vandylic. And erary bear it was more gempally amb frafandy worm. At


 where French fashim-lans were nheyal. late dmbine the sevontwent? and ejghtcenth renturim was matl hathly for
 which succected ruils wore either mathe af late or heoply fordered with it. Ladies ware lase hoad-drases. lace


 and thus, it was sabl. facilitated "hoather at carrls: they wore bacetrimmed Eartars. flepe frills of late at the kine

 caps and cratle-fumitnme wore mank of rich late, and it

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 monts (The lichellion of the lan*or in ynembly valuathle,








 1669 a company was oranaioml with flo mundmly of jts

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 cial taste in thar jattorms．＇loleir prineipal lacemaking

 livery kind of pillow－hace is imitated by mathinery，and sa
 In this，as in all work，that dum by ham wen thengh fatuly has a rharatar which no machate rath staplay ；and the






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 if allts of the ond Wherd，amd the mpomatatives of the family in America are aberramt．The samb－izand（Laterte
 lizard of Englam（\％wotore rimpore）atre examplas．
 lizard］：an ordur or sub－orter of reptiles containine tha－frum lizars．Thu atiophomid and orbitosponend ane imperate

 de，and semerally four well－therget limbs．The wombar
 verse procisces of the rortelore are shum and the rith sinern healed．There are never more than two sacal in nime orvi－ cal vertehres．

F．A．lecos


 ecedratiod Fiathr（cotm，am？therefore rapilly rove to be provincial－hat is，at high fanctimary of the derait watar In 16 an he beramm comfersin of Lamis Xif．．tolerateng the many mistrexes of this kines was emesmed in the liworat
 antion，amb of Finclon and other liberal prelates of the
 sphonlit manion in whe of the fatstem subarbs of l＇aris． In 180．the grounds were chom for the largest wemery or
 Ile wrote in Latin a hook on philomphy，Pripatetion qumd－ ruplecis phitusoph ier pheciln metionulis，naturalis．snpwrut－ uralis et mortes，and some andemical eosiys．D．finn．20， 1509．
 Dordogne．France．Der．12，1．no：world have not ham much known but for his revolutionary tendenciss and if his fables hand not reflected some of the socialistic ideas cum－ rent in 1830 and 1845 ．Lachambeandie only reesivel a primary instruction；he joined the saint－simonans，amp． throngh their chief．M．Enfantin．he was able to publish his Fubles poputaines in 183！．Though very libural in their teachinge，their morality was so appopriate and sergemine that they received the ammal prize of the Franch deademy． In 1sty，daring the lievolution，and at the time of the coup détut of Dec．，1851，Jachambeandie asoritated with Esquiros，Blanquia and other ultra radicals．In Jome 18 ses． after the insurrection，he was releasel through the cfforts of Beranger ；ind in 18．01 was sated from trananntation to Cayenne by the Duke of lersigny，who hat haen his friwn and co－writer for a puetical review pobliand in 1 se？in the department of 1 nire．D．Jaly $8,1 \times 2$, at brinoy．Limbam－ beatudie was，fir the French generation mitar Lous Dhi－
 hat been for Frenchmen under the Restoration．

Revised by A．（i．Cosparib．
Lachapelle，Marie Lomise：acomblome：bo in Paris．
 Her mother was a minwife at chithlat，and on arombt of

 theres．mutw the excellent tutelage of her muther，that an



 wretched conhtion of the lliter Han，and the matisuity of

 exhibitul her fomarkathe intelligence in the organizatimut
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 le catamed in vatime ways．as by athang in the situation of the partios．diflienty of probing the batarary avidene aftor a hong interval has mapend，its．In the caise of hagat tithes and had Aemands，hwever，courts of＂quity unally and in olvedience to the standia of limitatims．in conformity with the pratice of mart－of haw．la some Stata，alace

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 which pervented him from asoreting his rights：when his Aday is induced by the arts of the otlar paty ；or when he
 and the like．Poyety or fermiary embara－ment，hwo










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lowied by F ．S．lita $=$















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 Fied Lachmon" (Baylin. 18.11, H. X., 2ñ, xliii.); Biogr. Johrdücher (1503, 119. Ns 11.); Lachmems Briefe an M. Houpt (od. by Vahlen, 18:8).

Alfred Guluman.
Laclorymal (hak ri-mal) dand, or Tear-gland : the orgran in man and other animals which produces fats. In Buan it is of the shape and size of an almond, and is found ahmer tho onter angle of the rese. Its secretion is dischatged
 the lid. At the inmer angle of the cye are two apertures through which the sulfly of hadrymal sectetion is taken up hy the lachrymat eamale, pasen into the lachrymat sat.


Lach'rymatory [trom Mediare Lat. Iacrimatorium, liter., mont, uf herimutorme, proniming to tars. deris. of lecrima,

 tireck and limman toms. 'That they ever really contained


Lachate lationmota a vilage of comaty Argentenil. Que-
 hranch of tho ('mathan labifie lailway: on the North river. 2 mile from its mion with the hthawa. le has ex-


Lackawantab, or Lackawamook : a small riber in
 east curner of the state, fhas $\therefore$. W. themph lazerne



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 rite coal usad in New York city and in the New leneland

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 the ancient Pdopmbesis; bumand W. by Homania, N. by Areadia and Aremis, E. and s. he the figmian finlf, the
 S. it ended in the promontories of Tanarmend Malaa, the present (ans Matalan and Malio. To the Iammian fialt flowed the Eurntas, on whee banks was the capital of Lat

Laconia: town; capital of Bulkap co.. N. Il. (for location of comenty see map of Now Hamphire, ref. $x-r^{\circ}$ ) ; on the Wimipinvoge river, and the Conoml and Montreal
 It is sthited between Lakes Wimipisenge abl Wimnisquam ; has three weckly newspalere and is primpally engated in the manufacture of hosery and cars. lopl (1sso) 3, 210 : (1590) 6.143.

Entor uF "llerige."
 and orator: h. Mar. 12, 190, at Kecer-an-threr. in the department of Cote-d'or, Frame: studien] law at Dijon, and went in 1 sel to Paris, where is brilliant career sumed to open for him as an adratas. suldenly he mbrand the seminary of st. Sulpice: was ondained a priest in $1 \times 2$ ? ; hecame pracher at the collere de llenri 15. in 1s30: and founded the jomraal $L$ duenir in connection with lamennais and Montalembert. Hiestam! mint was that the will of the people in civil affairs, and the trachine of the pape in religion. is supreme. To maintain this ["wition ho drew on his extensie at oquantance with hitury, literature, and philisophy. He was the leater in the reation that took place against the skeptieism of Voltaire. His funcral wations excel any of the kiml in his hay, especially hat oration on
 Summoned before the civil comer for the radical than an his
 nonnced his deas. he immediately retracted and whmitted. In 18:35 he beran his coletrated fonformen in Ninue binne. drawing immense andiences, and in int? entered the Jominican order. In 1sts he was ofoctat momber of the Constituent Assembly, but feeliner hat his real himb of use-

 tane-radical sermons. he lived in motirement at antan. Where
 Dume de Puris ( 4 volo. 144-51, he whote ber de timint-






 to South Ammina equecially tur collon and stuls imoma
 in the lattur year he wan chand Proteron of \%ambuy and


 optera, includine a monergaph of the ('hryomelifir: warions artioles on somb Ancelca prineipally in the $h$ orme des

 (in the Simpelles Siutes if Buforn), the firat summe patio lished in 18.5t, and ten whumes at the time of his-dath : it
























 Whole: this is callad kishmir or lathatam lampor, ame

 Persian painted ware. the eremm of whin is er inerally
 and artitie than the Indian wates and the painatel figure



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 th; Mistoire de lu will de Shosswone (with Martin, 2 vols.,




 Sermal of that haw hem tamelated into English. I). in


 transathr, imbator, and ritio of shakopare. His Cdipus

 liranda Analemy a grand pix of 10 , (100 franes.
heviad by A. R. Marsh.
Lacroix. shmemter Fraseon: mathematician; ho in







 arigin of which is manown further than that it is the develuphom of a game ralled hagataway. which the early

 Sarying nombe of fasom to how or cary a hall with the









in 1867 Dr. W. (iearge Imare a mempar of the Sontreal hacerose ("hb), formabitet tha roles whinh, with slight changes, are in wat. There ate mow fibe latmone andiat


 walls.
 through the edtiots of I. R. Wimmery, of the Now York Athletio ('lul) it was intruluent intw the larger aitios of the eastern and mithle firtion of the L. S., where the mome prominent athedid ahbs mow has trams. Laterom has also hat a pominent plawe anmer intermbergiate sports at Harvarl, Combll, Prinetom, Phisersits of Pemsybania, Lehigh Coniveraty, and stoven, Institute, amd intween

 Anstralia has as gual repmendation of hayers. the oity of

 and anmual championship matches are played bet went teans from England and Tralaml.

 game is th carry or throw the ball with the eronse or stick,


 high and 6 fert apart. with 10. yards hetwern the gonds, Each goal is surromblod on the fome and sides by line ealled the arome, drawn 6 feet ontaile thr punt: The phayers are twod in mumbr, and whom in prition for play wtend nearly acrosis the fied from goal to gatal at intervalo of 10 yards from rach othar. The gral-keeprer, whos pasition is within the lines of the rame, is tho maly paye who may catch or throw the ball with his hamls. Xo phayre exeept the goal-ker"up may come within the has of the erane except when the ball is Histe. "llu" game requires iwo monpires and a refere. The posithmal the manires is behind the goals. and thoir dary is todedmme whether or mot a goal has been mate by the playars. 'There fere has gemeral control of the same detides inf fonis and chams, and antministers the rulus. lle may mot revres the decision of an umpire, the he may remote him.

The pieturespuc drese of the pheyrs, the ghet changing of the phay from one part of the field to another, it- simple rules the graceful ation of the runers, all combime to make it interesting tu suctators. Thas fir larrose is played only by amatenrs.

La Crosse: eity (Imlian tralinefont tsti, town 18.51,
 of "Wisemsin, ref. 6-b) : at the confluenee of the La ('rosio and Back rivers with the Missisipit on the Bum... the 'lli. and N. W., the (hi., Mil. and st. P.. ame the direen Bay, IV: and St. Paul railways: 19: miles W: ul Milwaker. For many pairs its princepal industry was the lamber manmes, but it is now engared in groncral manfartures aml has a large wholesale trade with injominestatios. The centus re-
 (repesenting is industries) reportent. Those hat anombind (aphal of














 the most learned mon of his time. It the invitation of tha













 in 1465, and is mat of the first merimuln of the typuraph


 1stom. limenal ly M, Warmis.
 of lar, lace - fis, milk] : the lymphat je vomb of the smatl







 antery and terminale, by two or threr small trunks, in the theracie thet. Hew the ehyle mingles will the mom watery.

 blone her himphathes

Lac'ic Acid [from Lat. Lut, lectis, milli]: wite monreique of bratomot: the ach forman in milk whent it turns
 is formen from lictom or mik-stugat as follows:

$$
\left({ }_{12} H_{22} \mathrm{O}_{11}+1 I_{22} \mathrm{O}=4 \mathrm{C}_{3} \mathrm{II}_{6} \mathrm{H}_{3} .\right.
$$

The sumine of milk is not a protens of uxilation, hat. like





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## 














 Kul ene


 Praty ：











## ladammm：－I． 1 ancom．



















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f．Mata linhwis．

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 1 Hataiary．
Ladian IV．：King of Poland：bat（ramow，May 30.




 married at dancher of the derman emperor Ferdinand





Dadishas． r hadislams：the name of seven hings of
 ahmi lift：sumond hio trother．dieral．．in 10at；was

 for the crown of Ihnigary p pmalyated a new conde of
 atided landelan II．in motainine the throne of Poland；pro－
 oreved many ，hurehes and minateries，and favored the cherey in their efforts lowivize the Ihumatians．D．Inty


 ancert in 1204 to shemed hie father．Fonerich，hut died May


 remenored by mat hurde of Xusal Tartars or Mongols from the phinn X．E．of the liank Lata（the empire of









 truce with the sultan Ammath 11 ．at sareedin in June．
 the instigation of（ardinal Intian ohtamed a papal diepen－ salion from hi－bath．and invaled homatia，where he was
 lish motility，at Vama，Son．10． 144 ，－Lamslas V＇l．，Tue

 1／10：sumal monthe ：ther his fallares wath，when Ladis－



 frllowers of dhan Shes－Cimial VII．whest an of Cusi－


 with all army on the death of Mathia corvimas in 1490：
 the Turlo．amb repmled the amy of hajazo in 1501：made

 Mar．1：3，Bith，




took a decisive part in the "ampaign of 18.0 at the hattma of Marignan and sulferime. lnine wommad at the lattor.

 and towk an impurtant part in the hatthe of lanmy, Natso

 coived, in rewornitan of him brilliant arvien abil hiv vice tory ofer the Commmanis, the emmatmi of tha toritarial

 sions wis abolivach. Ladmimalt retaimal hiv pmation ot military govermor of i'ario, amd momed matil mis. In lsits

 was mot a candidate. Jle is a grame erass of the legrimo ol llomor.

Ladoga, latado-gatio: the largest lake of Europe com-
 tween the governmont- of Vibores, Puterohurg. and olnmet\% It receires the water form the hase of Onem, salma, aml llmen, and sembe it thomgh the Neva to the doaltio. Un
 tion is very danderoms, and abals hase heen ronstructad connecting the Neva with those rivers which flow into tha lake, thereby estahbshine a water eommmateation through the Volga between the Baltic and the Compian sea.
 ands: a groupr of fiftoen ivands in thas latifice trean, lue longing to sbain: situatell betwern 13 and 2 A N. lat... ant between 144 and 146 ti. lon. 'lhoy are of raloande orioun. have a warm, healthful elinute and comprice an arm uf 417 sq. miles of tertile lathl. Only four inchudine fatam and Fota, are inhabited. Ther were tirst discomeded by Magellan in 1 owl, and called has lalis de los Ladromes (the thieves islands) on acomant of a stroner propencity to theft observed in the natives. In 1660 the flamiards extablished a reqular setthment on Gumm. and coilled the islands Marianne islands, alter Gueen Maria Amma. At the time of this settloment the ishambs had trom 40,000 to 60. 000 inbabitants, who recetived the settlers well, and made great progress matil the spaniards beran to attack their independence, when a war broke ont which ented noarly with the extermination of the nations. The present mamber of mbabitants is not more than 10.0 ma , and of these many hare been transformed hy the spaniard from Lazon. Principal town, san Iquazio de lgaña, situated on (inam island.

Ladybird [: ludy, meaniner onv Lady, i. e. the Virem Mary, + bird: cf. Gelm. H/armahifer, liter., Mars-lectle]: a
 lide, of which there are more than 1,000 species and many genera. They are extremoly nofol to tarmers, destroyng Vast numbers of abludes or phat-liee ; bat are ulyoets of many superstitions. and are by many viewed with a vague and inneasonable dread. They are isuably of an elongated hemispherical shape, frequently have bright colors, and ate often sputted. The speceres are dillientt to distinguish.

Lady-chapel: in Enolish ecelesiatical architomure, a chapel forming part of at cathedral or colleqiate churah. amd dedicated to the Virgin Mary. I lady-chapel is attached to nearly every Encrish catherlral, thourh vocasionally want ing. as at Lincoln, York, and Peterborough. It is rommonly at the extreme east end ot the church, behime the sanctiary, as at subishors, Wells. Liehiehd. Winehester : itt Canterburs it projects from the northwest trancept at bly it is an independent and reve elesant structure. aljonmong the north transopt. It Jmrlamen it phated at the weat ent, where it serves a domblo purpuse as dialileevored and lady-chapel. On the Continent no importance sems fo hate
 architecturally.

1. D. F. IIAMLis.

Lady-crab: tee ('ta
 the Virgin Jary, In lireat liritain it is whe of the puater days ujon which rent is m-natly payable.

Lady Franklia Bay: the Aretie lay on whinh was located the station of the anfortmate paltr expmetition of the U. S. Sional hersice, 1 sst-s:3. It is between lato, it ami
 into Kemnedy Chamad.
11. 11.11 .

Lady in the C'hair: Sue Chassophas.




















 their kinsmen, the suiturs.
J. R. S. steremet.

 the far west, where the nighto "ere on hart that " heredsman hatis heremath as he drive in hav dheks and the whem
 is probably a hinst at the shopt. hrioht hishts of 1 bue far
 Gretks enamed lematini in surily as their bome, while tho







1. R. S. stekrett.








 swel by the Elzeriss: ellited Pinis Misturim nuturelis Brasilhe, the matural history of l'liny. + twand phalinhed two



Henibert IT. Syith.
Latáre Sumday, Mid-lamt, wominida de Rosal : the

 af the intront in the misal tor thin ilan (las. Kvi. don. (hat this day only is the orean blabind dming , ent in Reman Catholic ehmiches.

La'vias: a latin met of the firnt half of tha tirat com-

 ins amatory and mythologial mhiteto in al lixht amb sumtiwe voin. Uf his Emotomemer ther Wore at le:ast -ix



M. WARREX










































































 ment with＂
































 father win hilled at Minden，and on hiv nuther＂s death in






 t＂He mocty patrint：was womded at hrandywine and fought with prat hobor at Monmont：was in Prance rath－so，where he indued the king to semd Rochamban to Nowh America：condmeted the campaign in Viryinia．
 twan；and then returam to trance ：visited the L ．So agan
 in the frencla andonics．and fred and educated his own

 Whimh he was a deguty，lis：；heome viecoprestent of the
 mamber of the mational gatards，whioh he organizel，1：89； fommed the Comb les Femillant－ 1700 ：protected the king

 bins，from whom he eveaped tu Vlamers，but was impris－
 ated ly Napulenn，and roturnot ta France in 1799 ，hut Womble inver lecome a partisan of Napoleon：lived princj－ bally unon his ratate of l a（irathe：was in the french flame of liepresentatives 180.0 ；in the（＇hamber of beputies


 and rommandeal the matimal puatid，hat not in person．
 an aridont atm enosistont demonert，hat he was ready to
 lia．Viven his emondos almiltod hic perfed homesty，comur


 Mublicans．

Lalayette Collere：an incitutin of laming at Easton，





 roblaw wallurod vory mond from lanck of fand in the ararly
























including buidings, the fine scientific equipmont, libarates, amd interest-bearing fumls. Fithelbert 1). Whamead.

Labayefe Formafion: in wowney a fomation derivine
 fosed; ; misinally known as the orange samle in the lower Mississippi valley and the Apromathex firmation in the
 row belt on the Ahantic coastal plan. extembins from daltimure, Mh., monthard through Virginia and the dardman: and thence bombning westwad the the Mer Masiph valley, and apmate arain in Texas. Its area is by wnate
 well-romiled , partzitice mohles imhedfed in mange-tinited
 mic importance. amb, so fir as known, comtain no fomils. The formation saries in thicknes up to about 10 of fect, and
 sils. It is considereal the yonngest member of the Neomeme. Resting on the eroded surface of the hafayotle are Cillumhian and other llecistmene deposits. Consult Thro Forme-
 - American Johrmal of science, ser. 3, vol. xxxt. (1sse), and The Latoyptle Fornation be the same anthore in Trupfoth Anmual Report of the CBited states tralogimal sinmety (15:00-91). Mrafl t. lísaell.
Lallitfe. lab feyt, Tacques: stateman: b. at Baymone France, Oct. 24, 16ifa son of a pror carpenter: went in 17si to Paris: becume inlise a bonk house of lerreranx ; was sond atmitted to the firm ; beame a regent of the bank of Frames 1809, and in 1814 its frnsernor; was in the chamber of Doputies 1siti-12; acpuired great reputation by his patriotic management of the phblic finances: became hanker to Napleorn and Lomis XVIII. was witely beloved for his generosity, honenty, amd constant devotion to the canse of gond government, hisuwn preferences being democratic: supmrtel the revolution of 1-30: Was Minister of Finance 1s30-31. U. in P'iris, May 20, 144.

Laflean, hă feeto. Joseph Fraveors: Jemit missimaty and anthor: h. at Bordeanx, France, in 1650. In $1: 12$ he was sent to Canada, where he was stationed at the lrumis mission of Sinlt st. Louis, making emnsiburable exeursions and heoming intimately acruainted with Ludian charactor and custmo. Returning to France in 1int, he pablioned in 10, 4 his Menrs des sumbeges A meriqueins. which pansid through several editions. In it he arente for the Asiatice origin of the fanerican race. Parkman and others fegard this is the best of the early works on the Indians. Lafitan also wrote Mistoire des likonrertex et des linquetes des
 moir on ginseng. which he helieved he had discompad in


Lalifte, Jewx : lemer pobularly known as The Pimete of
 is known: but he watcattracted the the tinlf of hexien anm

 the heal of a band of alsenturereor jurateers on the inamd of Cramde Tome, alout an miles V. of the mont if the Mississipqu. At first he sailell as a privaterar under tho Fremd flar: hat at at later perion he trak advantare of his olpmotunities, and captured whaterer wespls cande in his way. withont revard to matiomality. His airene worn ond



 flucements 10 whter the service of treat Britain, Latitho. howerer. selat the letrera to the comernor on laniciana, with the assurane that he womld enter than wrice of the (... in case of pardon for past offence. After whm hatation
 oecurg and hatend the pa-c. of Barataria bay, But ho fought with his men under (ian. darken in the hathe of




 details in requal to hio death are entirely wantine. He wa-
 men. Se Lattonr, Har in Lomisionte: tianarm, Lunisitum: Parton, Life of Juckson; and De Buers Ratue whls, xii. and xix.).










 France, on the left hank of the Lairn: has manulacturo - if patur and leathot. and at bind 1 rade in srain, wine, wax,


 now und for a chow if atiltery. It combans a fhelare




 he bevion the study of thendory, that aidmanimed it fightern months later. 'The wramy tompurathent and the puther
 - howed themselves from the firat. and he heran to live fredy
 literature. Seither onliee, whidh his father gave un to him in th4: ho mamiare which hio fithor arrament for him in 16ti. changed hiis irregular aml inprowhont mende of lifo. Hi- literary besiminge wre shas. A patical adatation
 burac. In 16.5 he compmone is harative prom. Adomis, and bedicated it to Fomphet. Prosental to that minater hy a relative, he was received inlo his homemh. 'Thereafter he continued to live on the bounty of pat rons, who prowided fior him somewhat as for a child. On the diserme of Fonyuet, to whom be remained framkly leval, the Bucheos of

 hisprotedors. To phense the Vuchase of limillon he begran


 and he continum to add iothem daring the reat of hiv life:

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 are twh with a gran ond and nimble ant. The liral endere







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Lager liner: Me lithe.





























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ThEumare: (illa.






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1atyos: a Britinh monn molny and protertarate, on the















 and relatal hatherhindillas. 'They ane abent the size of



F A. I.
La Grande : eity: Vininco. Ore for heation of county,





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## EAnTOR HF " liedortis."





















 1,825 ; ( 18941 ) $1,4: 26$.

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 fessor of Geometry in the loyal stomel of Artillorg 'Iurin.

 was mate president. Itere be wrold his Jictenique. Iure
 vitatione from the gowneign of his native sardinian as well as from thase of Naflex and Thactay, but nltimatuly ac-
 ing a pronson from the leadans, of whirh he hat hern elected in 1720 a foretigh asmetate where the reat of his life


The mothon ot the Variation uf l'arameters, exponmad tor a certain print by bular, but perfoend by latranuer, is whe of his impurtant contributions to analytital mechathies. 'The ellijse which a plamet would lescribe aromal the shat were there no other attraction materernes the thations of form ly attractions of other hatrenly bundes. 'The essebue of the method in yuestion is that, holdiner tiast to the ideat uf the simple eurve-the ellipme-thangh it le nerer realized. the actual motion of the bondy is concerverl to be on an alliphte curve, the parameters (er elliptice elements) wh wheh aro eve varying throngh the distmbiner actinn of foreign attrations. To snbject this motion, which umblev the name of "revols-
 lation, and to determine the influmere of enth plamet in dislurbing the elliptie motion of others, was the problem, the solution of which is in errat degree dur to Laterange. . ia a natural seducnee to this problem arising ont of this pros petmal change in the phathetary orbits comes the erranor problem ol the stability and perinaneme or the sulatr aratem. the establishment of which is Larramges erreatent adobeve ment. The orbits being thas in constant ductuation, it isof
 necessarily will he limitel in amomot. "1 whether the will increas prorressively until the stability of the sular sistem shall be destroyed.

Lagrange demonstrated (thomern Laplate hawl proweded him with a partial stmondratioms) that the flactation of the orbital elements is limited to small ammants, amb in furionlic, extenting. however, harough lomer periols nt tiane. Thus, e. Ir., the eccentricity of the carthombit. num dimin-
 gin to increase. At the same timat the apobles and nowle
 which coincided with the vemal eqninos fos! yoats b.
 of the creations, will be compleded in 118.0 mo loars. llis

 general title of dimeres de Laybumb.

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 the taheanal riwer，and the kial．（＇ity．Watkins and emalf






















lake Cily: town; ('allman co., Iat. (for lomation of comth, see map of Iowa, ref. f-th: wh lake erank, and the thi. and N. W. lailway : 96 milas. W. uf Fort lhatge is miles N. II. of Des Monines. It is in an artioultural fogion, and
 (184.5) 2.033.

Eintok of " lis.ab:."
Lake Cily: city: Wahasha co., Minn. (fore lecation of
 an enlargement of the Misomispi river, and the 'ha., Mil.

 mills, foundry, machincolnow, and phe ant wath factorins:

 It is in the midst of hantiful secmery, and is a pmpatar sum-


Lake-dwellings (aflled by atherobrints pulatites, pfohlhaten, or pult-buildings): dwellincs, mantimes forming villates, construdalon piles or on fasinesomer marshes. the shallow waters of inkand lakes, of ahome the maroinm of great rivers or eaturins. Remame of suth dwellings have bern found in many comatrios. Su mumpors were such structures in the (iull and Lake of lanamite, along the Urincos, and in ohere prets of Vombula, hat in allusion thereto the early spanin explorers nammat that powince "Litile Venice." The honses of these wather-villages were

 fonstruction. Eath lonse comsisted oit fwo romms, with theors of matinge and low shopiar rents of thatch. Thesio hanses were readied from the shore in dhent canoes, and entered by means of long, mothed step-hges. Viry simitar. althourh more compact, villages are fomail in Xew iminea. in the lakes of Central Africa as well as on the (ind Cenat. in the Celebes, the Caroline islands, and in boneo and southern Asia.
Both llipherates and IEerntutus, writing in the fifth century s. s., montion pile-dwehings: the fommer refring to villages built wer the shatls of the river Phasis, the latter to the Praromiars, true lake-hwelars those-who, having their village far mut of rer the wators of Lake Prasias, connected with the shome by only a lomg, narow bridge. were able to defy even banins and his army-nerywhere elsen victorious- - When he invaled Thrace. Thi flat forms on which their dwelling* were built were furninhed with trapdume, through which, by lethine duwn thaskes, the peende canght fish, and we ate fold that they tethered children by the feet to keep them from falling into the watar, and kepit
 manian fishermen inhathit womden huts simbiarly sulpurted over the waters of the sane lake to this day.
lake-dwellers are mentined, atthough less suediforally. hy ancient writers of the trionf: and an the bawreliefs if disyria such peophe and their willaces have berna fomal
 Sowthat and beland inhabital crammers, or lefomsisw lakevillages, from just-hinman times to tha sistemthement. thongh more in the nather of artificial iskimes stombindial and tramsfixed hy piles than of pile-dwillings proper.

In lse9 mumeran pilas apparatly artitiond, wion dis-

 remains of pila-buiblimes was revealed. 'lhat wintor fint






 revealiol the fact that many labse amb mathe thromonnt

 thements were in the ilprint lahes af luth ruitartand and


 filty (as in Semedratel) havime bern fomm in rach of the abmernamal lakes. The villare of Winnern, in the lake of (constaner, was smpmod hy a parallathramic phat form


















 pats mortiond imathem, and on thase the sumptrandire Were reared. "hi the other hant, When the Jake hathons were hard ir stomy, the "nts of pilas were simply resten on

 villag- - the hats heing bailt in sows upn it, ramely more than:3 or Ifeet ajant from one amether. Thoo hutw were sulute the walls mado of pists or longer pilos watiled with (niory and plastered with chaty as wote aln the flams, which
 Were provided with square harths made of stome slats, and were from 12 to 30 fert in length and from 10 to 20 foet in width. The roofs were of thatch, also wrighted down with stoures, or hamen with poldes.
 with the mamband, and the re is cemodnee that in many cases

 Were apmathel only in dugnut anome several of whith
 hy from is inches to thet in widh amiship.
 ings are of momense varicty and on numerons that norirly all
 have beell suphlied witha sertes of theni. A stmaty of thae
 by the same luchle for thonsamls of yers. huring which time the pared from a comparatisely rude. hat in sume respects remarkally alvanmat, comblition of tho. stome are into that of the bronze are amb in the latout viliaze eren



 4nomally.

The whoot tation was that of Take Masomblate. mar










 of carthons:



 srat, swith-prese hat they ware thelh tiller- of the wil atm Twr小mon.











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 1h．．R









 ti－




















































 mat＋eritl．




































 asoond edition，umber the tithe of The Latiendurellings of

 by Frenhrie Trovom in his Habitutions Lamastres des Temps

 －imithomian lasinulion contain mu•h infiomation on this sulijert．

## F＇rank Ilamationcermina．

## Lake Eria＊Site litue．Laks：

Lake Forest ：eity ：Jakie cus．Ill．（fors lueation of connty， sece map of lllimin，rit．1－（i）：an lake Niohigatm，and the

 treal lang）and has two weekly new－pupers．Pope（1880） 8.7 ：（15： 10 ） 1.203.

Lakr Forest Cniversity ：an iuntitution of learning which rampliwe six dintine sohoms：（1）Lake Forest Acail－



 frssinmal wembsare in（＇hicaten．＇The nharter was granted








 mblere while lörry hall tominary wot whly dors the same Worli for sump women．but also ofters 10 liom 1 wo venrs of mollegre work，Lake Fiment（bllener is romburational，and is








Joins M．Cotletir．










Lalia Murris：Amen Maris．


Lake of the Whoms：a large lakw an the lummary ha－


 Wiminer river into bake Wimbiper．It contams many





 worth，and sumthey were the most impurtant，what athe


 from the conteratimalition of the litwatime of that hay．
liveron ly 11．A．1satio
Lakes［O．Eng，Zucu，from Lat，lucke，luke，hamin，bank．


 considered in comection with the progres ol the en areal denudation by which the surface of the band is wom down from the comstrutional corm given by militing furas．on newly uplifted lambe eron if of tronerally even surlace，hatios may be numerons，as in lowdin，whe the arenpy slight m－ equalities in the surtace of the uplifted seathetom，whid is not yed well drained by the dompoing of river datames．In case the uplifting of a region in acempanied by fracturins． the comstractional doprosions hotwern the mifited duke may contain lakes，a amone the tilted lava howes which
 in suthern Oregon：athoush here the climate is tow dry at present to fill the hasios to orepthowing．fin regins of geolngically modern momentan rrowth，great lake hasins frequently lie betwon adjawnt ranges，beanse thewe has not yet been time enomeh to fill the basins with waste from the momtains or for ant vallas a mows the has rims．It the climate is monst mond the basins fill ame werfow， and their lake are frowt ：suth are probaty the lake of Central Afriea，umber the ladt of havy minatorial mins： although one of the m，＇lamanyika is an the verer of insuf－ ficient rainfall，its outhow th the Laknga and fongo being intermittent and its waters brakish．Great basins are wat erally in continental intoriors，romete fom the owams， where the ranfall is now relatively scanty；their hams and therefore rednead be waporation io a monderate depthand variable area：having in onthe，the ir waters retain all the mineral substances bromsthtinto them in sulution，and are
 the desert plains that have bea formen by thatial filling of the great basin by monntain waste．like（ireat salt Lake of Utah or like the mathy lakes of the interior dacort if Central Asia．These meat batia－lakes may the frosh or brackish，it they wenfy marumal depressintis，whes ower－ flow runs on to divannar in the celtral salluly wates；thas
 is brackish，overlhowing t．F．by the Desaguan mon the salt－ swamps of lake Inllagas，at sumewhat less elevation．In some desert hanins：lake may form in the wet samon，but change to a salt－mar－h or a salt bat in the iry seman，in tha＊
 tine Repablic．La reant senderical times the elinate wat moister，and many of the intorion hains were filled ．ewor to
 In deserts near thas sumpant depresaions that might in moister regions fill with water and owerlow are evapuatend
 Mediteramean，or the chothos，salt－liaties oncoupting small depressions in the Aleremim Sahara hat the enat．whel it has hen propomed to thoul hy an inthowing amak from tha Meliterrancan．

Lakes are usually dostroyd be the proges of river do－ velopment．being tilled hy defta srowila at the imbe atut


 duratiun are ereatod hurine the thanal and ame of river amb satley develument．＂lone the haty dosemt of lathlider may dan at Yatey，as has frequmbly hatpman！in awitar－



















 Ley the delta whe thatator river．lat as the edinate there



 yam，Mas．

 wated in the youth of the rewnow are dentrosed hy the per－


 this batig the mot probahbe origin of the ereater mareinal



 thatbates of momal river action frolueq lakes．as eath－ phake shoke，cansing shbidn mer of certain parts of the land：thus several lakes were fonmed on the flemed－fain of




 Italy，as well as athers in the dxars，aml in sumatra Crater Lake，in Nowther Calimian ho in a very deep
 han sumetimes pralued cavilios helow the surremeling sur－ fires．sur as the Mare of pit－r ratur lake of the Eifo dis－ triot of Westorn（mmany．Layaflane often ebstract
 Late Tilnerian is thus fomed un dee durdan in labratine．
















 tance in the highland of sonland and Wader．an well as

















 been friment.




















 of sath lakin is bery limitat. Mimme lumat tides of a faw





 with the homsth amd dogh of the Jako. and with the momhor
 common wemena on the ditat lakne of North America.





 tratin. the lake Water and currents act upar the shoms,

IV. II. Inses





 Whether the rule that and atjominer propriden, where


 be conveniently aphenl. In sentland it is apphed tothe bed of lakes, and the space indond he linas draw from tha



 must betp within his awn bemmarian. 'The riathe of hat -
 rommon ure the wht wator surface hy all the wows of the lake hed. Lend hatherly than exphins the wigin of

 veniently armand the mannot har arrase at the molium


 of the state in whith they are lomatal. It thas hal|".


 Waracter to a lake in atmother stan.
















 the -ail buter them amd of their wator. This ownerhip,


 faration tor riparian an aro on the ontet trame for dan-
 fompany vs. fitiy of fiell limer. 1fo Mam. ita.) The law of Sow hamphate ireat ghat jumband lake as poblio. fromets, bat the state is 1 an allowed to diver ther waters (1) the harm of rigarian wwites withont making due anm-



Butweq theas axtmone is the male which, with stme malitionlonse, whans in Niow Vork, and in must of the



 While the state retains somporgh rights in its wateres such




 ton tor riparian owners for the diversion. (smith vs. coty

 ['. s. supme court to he the hat law of llinois and to warant the enolelasion that a grant to the plaintiff of $4 \sqrt{2}$ antes hombed on a small hake, carried with it the title to
 and at mod latere arna of the lake hed-that jo. the areat in
 The lan that the lake was of a cirnlan form with an irrerwher margin, and the eanter line dificult to ran, was thourht mit the emtifne to muh wejph. Aherdin vs. Jordan.

 this rate. It halds that whol the sate grants tio a persen
 to the center line: but when the lomadiag likne is in fact nistigable the state remains owner of the bet and of the

 that the riparian wome has the right to aceretims of relintions, and if the laker wedes his bombary fullews the water. though as the roult ho thas mas aequire tith to the midita, lime of the orginal hake. Lamply is Metcalf, 33 Sorth"r.atern liepmertor 11:39.
 pultie wathe. 'The state owns the land muler them as it fhes the wil muler tiale wather, in trust fore its perphe that they may enjoy the natigation of the waters, nary on ammorre wer them, amb hane likerty of tinhing themin freal


 hand mulce the waters of Lake Miedigan hat lint the cifect of a licuma: that it conh heromed and he state could ra-


 of that torm an anal in as at ato giving to the Ferteral conto
 Waring that "a later buty of mavigable water oblar than a












ing inks. Almost all andoring-matters may ha mate to prolure lakes, but in practice a few only ario fomm availathe for this purpos.
 and laris lake, has a beautiful red wolor, and is the timest of all lakes. It is male by anding an alkali to a denetion

 madder is wathed wihh colld water, wherin sume sulphati
 minutes, with ten fimos its weight of a 10 pre cent. mhe tion of alum from from itw. The liguid is filtoral sumd cooled to 40 or 3.5 . The reatembed matation is thon treat ed bither (a) by saturating cantion w w wh warlwate of sula

 which remains in solution. and which is procipitatend on Twiling, as an insehuble basio sulphate of ahmina, bmbling all the coloring-matter in combination. or (h) by atheng at solation of acepate of leat, containinu is parts of the salt for every 100 of ahm lued. dilterint frem tha prodpitated sulphate of leal, and hailiner to prepiphate a chlarmb bate acetate of aluminat. This is much finer than that fereip. itated by cartmonate of sobla. Hizurin-rel luhe ts mas used inteald of mather lake. In prearing Brazitmond Iake the wonl is boiled with water, and themention shom be left some time to premit impurities to wetth.

Loguond wives a vinded lake on the atlition of an alum solution to itadreoction. and precipitation cold ly vartmanate of potash. Sthenet yiphs a pure lake whon the finty cut roots are boiled with potash, and the onlution is preariit ated ly ahmo.

Persiom ur French berries furnish a yellow lakio mallal
 then a sohtion of alum is promed in as long ats a promipitate is formod. 'The colne is bightened by treating the monat precipitate wilh a tin solution. In promaring fusfie luke the decoretion of the wond is treatel with a liftle shae or skimmed milk tor remove tamio adil, then made alkaline, and precipitated with alum. Quemitron and med lulies are mate in the same manner. In emotto letie the apmens solution of anmoto is mixed with cartonatu of mala, heaten to boiling, and precipitated by an excess of alam.

Orenge letkes may be mand by biling annoto with ara
 boiling tumeri" with puta-h and precipitating with allum. Blue lukes are whom pryarel.

Green lekes are nenally prepred by mixing bur amy yellow lakes, or blue pigments, such at Prusith bue, witamarine, indigo, etc... with yellow lakes. if wery gral !aton lake is mate by exhansting 1 th . of bonised ioftomberrion

 cess. Andine lukes, so called, are mot true lakes.

Rerised ly lea hemser.
Lakewood: pmplar winter reant: Ocean m, N. J. (for

 York eity. It darives its name from its theation in a sast pine forest, stuhled with many pretty lakes, Thes hame was known as the Three l'artnerv' 'awinill from sham bith till 1814, as Washantom Fumace till 1s: an the Bran Iron Works till 1sef, and achrickshare till 1swo. whon the Legishature aththrized its preatnt bame. burine this perion hambering that the manfarturm of harenal irn from the native ore were carried on with fow inturruption. Simp
 tele, numerons, frivate and harding cotlars. ? well-w-
 light plants. and many met ropulitan alrantang.

Lakhimpore or Lackimpoor: a diatria uf Britial



 at all times of the year to bibmearh, atm in the rainy wat
 miles, the ereater fart thinly sofled he imbumbent hill-

 clay, and gold are fomm, anl rime and twat raind. Tha, India-ruther, musa silk, beewas, ionty. Ma....ane anderd: oprum, tolace", salf, vil. and cotton chath are impmend.








 mademly laxiuty from the fanm of the -an, an is sairl of
 drlicatw alfrom and her attombant. like that of Mimora, i-

 abmondace and fertility, the in Wondipad by acromblaral

 very foug girl, with the foll hreasts of a manam matmon. thus typifying homding heanty conjunen with full frotility.

 silcer fam of the churnal excan whilk.
Rッvind hy R. Ladey









 were expedinely attration, mot only to the smbnt. Wht to








 and hatem in 1811, and was mally livuthant-stometal and





 after which he made hiv way to 1 hu $\mathrm{l}^{\circ} .5 .$. wher lue por

 and Lallemand's behture in Texal wat alon manementul.



 Fardeviln. Lallomanl. howevir. thok 1 w pronal fart in
 100,106 frame to Lalld mand, Gut the fromeh limermment















 the sherth:













 11. V:. H1 Mat.











 Tho lama is rather lighty lomito has a hong lunly, amd lons,
 in the "ame the kno is fre from the bexty. The animal
 whit. marked with hawn up hlack sputs or smotimes nearly back. The lanat was domextiateol by the anciont



 Stroza. Fo. l. latas.

## Lama, or Lamas (imava: SM Jaymm.


 Ereat part of 'lartary. Its cha f ehameristic is the wor-








 or imamatime of medmated Buldhetic saints: and next





 makre and artams. Ther form a laray fonntion of the














 finm the sumbril. :















 the mimatins. and - when his timp in priser and contem-







 Which was siven the name L/m-swe (hatse of spirits), and
 a mputation fur sametity and, in spite of alywsition from the priots of hisher rank, was jomel bey matamas, who

 ann veral war all Thlut and Tartary. Its founder died in $1+19$ at the lamasery of kiadan, mar hasa, which he had wablished and there, acording to hamaic belief, his buly still remans. nathangel in anfarance, and minaculensly mondend atwe the varth. He left varinus writings. of which the mast impertant is Lam-Rim-Tsien-Bo (the l'rentowive lath to J'erferiont).
The title of rigetre himpo-che precions or holy maj(sty). pepre to the grand lama of Cilyet, was riven toward the cond of the filtenth contury. The Mongols call him Datai ar Tole Lama. bey whirh name he is generally known. Ilis toritorial pwer dates from 1640, when Nag-dsang-ba-bzang-rya-moto was male tomporal loral of libet by the Mongel rompluer of that combtry and China, Thure has since then buen a constant succession of Dalai Lamas, mone of whom has mate any math in history. Therat T'ilutan somerigns have no shate in seenlar business. which is tramached hy a viceroy called nomethen (spiritual emprore and four ministers chasen from the ham class. The lailaiss whiow, like that of all other living Budthas, is th) sit (ros-lergen in his tomple and silently reevive the andoration of har faithfal. toward whom he ocensimally extomblin lanal in when of hlowing. An incarnate Buthla nuwa dies. He guits his baty nols. after a brief perion, to enter that of a rome chind. Therefore when a grand lama Weparts no ariof is shown-metely an anxiety to know where ha may be fomblin his now form. Sometimes he tall- hais before his withdrawal. or alter it sembs a sign,
 -hose ley lot from three chatherns or living buddas of tander age: at hast sula a firm of aldetion is pone through, that it- rosult is dotormine by the limper of Chima or his ministars. Like the 'fibetan sumedern, the living Budaha of a lambery has mo rab power, hat haing in the hands of

 hanco in hits built aromal at temple (Ihe-Khang, spiritLonnッ. The lamas have ne common mefoctory, hat live aererting to their walth, which, as ther are not unter sows of purarty, is ermatimes consinderalis. These who have rathed a certain rank as theological shlulars receive an allow: ano from the "alowment. Sume are paid liberaly by


 the Indu-Chimes sty and are promedy adorned with


 If more lifedike than it, sits the living Buddala.

Lanine the monk-hams, there are hermits who inhalit


 werme as reaty an that siver in borepe the thatrant



 ajoch They are fobl of ging on pilsrimares to holy
 war wheh Pudtlat is sain to dwell within a momatan; and
 There wrows the tree proug from the roformers hair, all
effurts to propagate whith have says 1 duc, heen masuemssful. Pename forms a part of the pilarim"s lutios. The more zealous fenitanse make the circuit of the lamarery. prostrating themsthes at each step, with their forehendtouching the groumd. Or they carry a heavy loan of payerbooks, and thas sain medit for having repeated ath the prayers therein comanofl. Liphter forms of pename are. Walking roum the lamamery while telling the beats of a rosary, or turning a payer-whet, This devotimal machine is usually as sort of harrel, mosing upon an axis and inseribed all over with pravers. The worniper anta it gong. and it turns prayers lor his henetit while he pursues mone more mundane oeculation. The most commorn rowary. prayer is that called the Muni, consistine of six -yllablen: Om Mani Padme Ifoum ( Hh , the wen in the lutus! ' Amen).
Even a easual student of damaism mant wherve the similarities between its ceremonial and that of Roman ("atherlicism. These were pointed out ly Inc. fur whieh lrankuess his interesting Low was blaced in the Indes Ergmontorius. To account for them, he premaxel that the wantering lana, Tsong-Kapas instructur, was in reality a Chratian mi wionary. The cannical books of 'Tibet exceed in length thone of every other comintry. They are comprised in two collections. the Kan-jur (bんitah hgyur), consisting of 108 valumes, contaming 1083 distinct works and the Tan-jur (bstonhgyur) of 22.5 volumes, eath weighing from 4 to $\bar{i} \mathrm{lb}$. in the Yekingedition. A larpermortion of botheoblectimsintranslated from the samskit, but the contain also many urginal treatises by Tibetan and Tartar auhors. Ser Traiels, Dy F. R. Hue; the works of Alexanler ('woma de Köria: hip Let-
 Die Religion des Euhdha: Shlagintwot's Budhhism in Tibel (Leipzig and lomund 1-6:3): and Waldells The Bombdhism of Tibet, or Lanaism . . . and its helatrom to Inlian Buddhism (London, 1vis). lievised by h. Lalley,

Lama-Mian, or Dolanor: a town of Mongolia: in a sandy and barren plain ahnt 4,000 feet above the level of the sea; 150 miles N . of Peking. It is a town of considerable dimencions, mostly inhabited by Chinese, thourh mot like most ather Chineme towns of the same rank, surromed with walls. A conminerable trate is carried on here, the Mongols bartering their cattla, harses, sheep, hides, ette., for tea, tobaced, and Chinese fithries of all kinds. It has an eeclesiastical and a traming quarter. Shout 3 miles from the Chinese town are mumernus lamaseries and templos. Williamson's Journeys in Worth ('hime, Mongolia, and Hencharia (London. 1s:0), and l'rjevalsky's Mongolia (1si6).

Lamanskii, Vlammir lyanomen : writer: b, in st. Petersburg, Russia, in 183:3; has bect since 1s69 Prolessur of slavie Languages at the Coniversity of St. Petersburg. He is an ardent and learned slawophil, and has writum soveral historieal and political works. The hest known of the on is his Historical Investigation of the Greco-slar World in Europe in which he develugs the therery of its contrast to the Latin-Germanic (St. Petersburg, 18i1).
A. $C^{\circ}$ (".

## Lamantin: Sce Maxatee.

Lamar' : town : capital of lbarton co, Mo. (for lowation of countr. see map of Miwouri. rat. 6-1) : on the moth wanch of the Surine river, and the kian. ("ity. Ft. seot and Mem. and the Mo, lace railways: 129 miles. of kansa City. It is in an agricultural region, has an abmance of coal and timber in its vicinity, and is principally ensaged in farming and mamfarturing. There are i chareho. os



Ehator of " Demorrat."
Lamar. o" Lamar y Cortezar, Joné: Suaninh-American
 dor) in 1ris. When wery youne be went in salin, where he entered the army, fought arginst the french at farmoneat and in Valeneia, and was taken prisomer. Int escapeld. In 1815 he was sent to Pern with the rank of hrieadier, and he
 $18_{2}^{2}$; he then resioned his commionon, juined the patrints. aud San Nartin made him general of divi-inn. In 1-s? he was a member of the sownmental funta, and at the Bewi-
 Perurian eontingent, and was male mar-hal. Comeron
 tutional choiee a* he was matation of the comatry, "lhe main aim of his alministration wits to destros the inthemen of Bolivar and Colombia. Tou this mat he impondentam? obtained the deposition of sure, Bulivar's frient, from the


 weguently triol to avale thin trasty, but his whis ntheme





 Comm, was admited to the bar, removel to Millotime alle,
 -ion. Jhe was chanen hy the Jatrivature to compile thestatute of the state fromi $1 \times 10$ to $5 \times 30$. In $1 \times 30$ ho was ale
 he dixcharfed with rrat dignity amd ability; hie decionous were considered of the linghet authority. not only in (burcria, fut in the adjoming stathe. Withnot any hawn canse, he fell, at his thane in Millemeveville. hy his onw hand, wh
 purity of hiv comproition, and in formsie elonuence stome among the first orators of his day.


 "xford. Ga, with highest homera: stulien law, was admitled th the har, and rose rapidy in his porfeasion: sulsequently movel to Mississipri, and setted at oxford in that sate? wat bertel to Comgress in Jsif; was reralected to (iugress (the thirty-sisth), and resignem his sat in that hanly after Mininiphi pased her orimance of secesim in 1e6i. At the uathreak of the war he ancepterl a colomeley in the promixional army of the Confenderate States, lut was afterwarl sent on a European mission (ha his entrance into Compres in 1s5a, Mr. Lamar tomk a high position as a dehater and orator. In $1 \times 2$ he was apain flected a momber of the Inome from Mississign to the Forty-third Congress. Ilis spects upon the death of Mr, Summer was one of the mont dombent ever delivered in the 1 lomas. 11 w was C . S.





Lamar. Mirabeaf Buosaparte; juresident of Tesas and Imitician: brother of L. U. C․ Jamar, jurist: bo at Lumisville, Ga., Aur. 16. 159s: beemme a merhant and phaner: established in 1ses a State lights" newspaper. The columbus Inquirer: removel in lejo to Texas, where he was distinguished at the battle of sin facinto; became a majorgeneral, attorney-general of Texas, and sectaty of war:
 Ifont of Jexac. In 1stif he foneht at Monterey and on the



 Chevalipr de: naturalist: bo at leazontin, lorane Jug. 1.
 army at the age of sementem, serving in the susen Yars war, and at it-cloge deroted himeme to medieme and phys-

 In loat he was chosen to the Gendeny of semenc: became Intanist of the Iardin du linisw : undeld the Hietionnaire




 the prowess of conduthens subtantially in anemat with the Sen-1anarekiamsm of the present lay: Histoip noturelle




Lamardiamicm (from its firet expentmet the "lhevalior de
 whish firmed nearly the whale of the eveluthon of lamatrek. who thlieved that all chanes in form ant -tructure of















 then times, he homerilen at minutely in a work whith is hith-









 the rank of limentan of amblery : Wa masal to the rank

 stum. Hu tom an ardive ame important part in the hathes
 Milan: wat make higatior-momed and was for a short
 resture the eramd duke: then to dieman to suppress the re-




 treps ant to, the 'rimea, bel them to the vietory of the Tohernaty and winmed to liohmont to resume his post as


 to Prowia, and an Nomember of that bear was apminted

 agation bul of the catime and on the ontreak of the war in the latter yar low pant in the campaimaranst Antria,



 attacked and dertain diphonatice di-patehos wor mate pab-
 sured by the minise. After this he lived in motionment.
 (1)
lieviad hy li. ('m, Mr.






























 -xample and preept strathened his deep religins in--thot- and from bueks. espectally the litho. 110 traveled in laily in 1811-12. "jan the resurat inn of the Remblons in thin the antered the royal budy-ghard. Burins the 100 days he tome refuge in Sisitzerlani, and resigneal from the senard alter the hatte of Waterlow. The hext years were - wom in denteny litwary attemps whide wat ing fur an alyminment in thi finhis serviae. In the fall of $1 \times 16$ he wont to dix in sivey for his health, and there met and

 when drath in ber, 1 bla, atfected him deeply. The proms of the Yare 1s1-19. of which the Lat is the most famons, were culnemb if mithopinel, by this "xpericnce. They aptmated in 1000 with the ar tithe. Mrihthtions. portiques, and
 ing and the direthess simplicity. and elopmene of expresion. This whme was one of the geratest litary sucremer of the century, and hat at smalating influme on the buw eurrents if purtry. lisides praise it brought Lamartine apmintment in the diphatie service at Naples. Wh the same sear he married an Enslish lady, Marimne
 Point, hamartimis enate mear Matom, amd at Florence, whithor he was transfred in 183. In 1 so3 appeared the Scombtro Méditutions pmítigues. and in 1 sen his continuation of Buron, Le Dermier chant du peitrinage dMorold.

 momies Ineitiques ef religitases, on the we of the revolution of July. 'The agitatinns of the time drew him into polities, twart which he lat disewered leanines some time hefore ; be publi-hell a pamphlet. La J'blifique rutionelle, containing a liberal prosramme and ufferd himself mancessfully for the Xutional Amombly. A jumpury to the Finst folliwed (1):2), drerribed in loyetge on orient (1835), and suddenly inturupted by his daughter's death (1s33). Meanwhite he hand hem elected from Bergues the Asembly, to which he was returned later from Lyons. He heyam son in to wingreat fame and power as a pelition orator. The puems of those years. Jurelyn (15:56) and Lat (hate if in tonge (1s38), mere ppisulus if a vast bum on the histony of hamanty that hat heon in his thmehts since 1-21. and Lfs Recueillements
 earlier works, with more frequent meghences, and hardly incrased his podie jequarity. Partly as an expression of his pulitical sympathics, whith wa re frowing more democratio and allying him with the "presition, he wrote his mont impurtant prer work, the /fistoire des firondins (1s15). Which beame at whe an influme. In 1848 be farorel a provisimal gowembent, herame its chief as Minis-
 Fwwer, lohinge in theck the umining of May, In the in-
 immediatoly droped int" obseurity, fetiring from puldic life before the coul of the var. His style of life hat involved him in abormons delts: and the rest of his life was consumed in a tragelo to fre himsulf he his pern. The


 dones followed in 1-ibl. Aftur this his work betrays more and more the comblitons of age and wil muler which it was writhon. It anurian literare and aritial meriodicals,
 lount (1s.5): Four d 1 liza (1sfit) : and hiwurics. Mistoire


 ?






 at homavico, (rupury, Sow, :3, 1817. He was educated
in his native city, ant early began to amass historionl doemments, gathering mo of the timest private collectinns in South America; seleetions from this have been published

 also published other hisporical worlss. Ir. Latmac was nom of the foumbers of the Dontevidea Jlistorioal Javitute; was prebect of the eoty during the nime yars" siece; was sabmeguently Jinister of Fimance, amd several tmes minister to Grazil ind the Argentine [apmblic. 1lerbera [1. Sismat.

## 

 Ilis fafther, who wats aservant to one of the benchers of the Inmer Temple, hat sume literary taste amd a rare fund of humor, amil was author uf a small volume uf verne. C'harles was educated at the school of Christ's Ilospital from his serenth to his tiftecntlorar, Coleridere hoiner a follow pupil and friend, and in 1 The obtained a clerkship in the gouth Sea louse. In 179.2 became an acomatant in the oflice of the East India (company, and remained at this just until 182.5, when be retired on at pension. There was a tendency to insanity in the family, which manifested itself in "harles for a shoit time in 1795, ant in his sister Jary the next year, when she killef her mother with a knife. In $170 \%$ Lamb printed a small volume of verses written by himself, Coleridere, and C'harles Lloyd. ITe dexoted mmeh aftention to early English literature: published in 1 sut Talta from Shahsperare and in 1 sos specimens of İnglish Drumutic Puets uho Liced about the time of shakspeure. Jle twice appeared as a dramatic athor, having printed in 1801 a tragedy, John Wrootuil, athl in 1 Ning a faree, J/r. IlWhach was brought out at Jrury lane theater. Neither of these phays had the slightest sucores.s, and the anthor wismy devoted thereafter his literary efforts to the field in whici, be is best known and most universally anpleciaterl. seve eral brilliant essays apleared from time to time in La itro Hant's Reflector (1810) and in other priombicals, tut it was not until 1800 that he began the Exsulys of Elin in The London Magazine. They wore enllected in 148: and established his reputation as one of the mast brilliant and thoughtful of humorista. In 1833 he athen the Latest Lissugys of Elia. Atter his retirement in 180.5 from the ilmadgery of otlice labor, the remaining years of lis life were fassenl in the companionship of a host of literary friends, to whom he was much attached. He was never marriel. In. at blamonton, bee. 29, 1834. An abmirable bingraphy and seloction from his letters was publinhed he T'. N. 'falloimel in 1841 , and his Fimal Memorials in 1848. A amplete dition uf Lamb's works anil correspondence, with memoir, hy ('armon Ainger, was published in sss. Alas se Jiazlitt, Mary and ("harles Lamb (1sit).-Mary ANS Lamb, b. in lamdon in 1265. sister of Charles, was a whman nit comsilnothle literary talent, and took part in some of her brothor*s works, especially the Tules from shmlisporer, She resided through life with Charles, who was temberly attachet to her; reeeived a jension after hiv boath from the East Thatat
 1817.

Lamlo, Martha Joisva lieade Nasu: hinturie; l writer: b. at Plainfield, Mass. Iner. 13, 189! : resided after her marriage in Chicago, but in 1 s 66 removet to New York, devot ing herself to literature. Her Aistingishing work was Th,
 She edited The Itumis of Imprica (1sis); wrote Il morinl
 and Sunshine (15: ) : Misturisal Sheteh of Tple fork for
 1883 she became elitor of The Metyerine ot Amureth Mistory. 1). Jan. 2, 1s!!?
 western Pern: sparated from hibertad in 1*it; bedabled N. W. by l’ima, Eay (ajamarea, No lí. by Lilurtal, aml
 part lies on the sloqe of the conat curdillara; the remaimber is mach broken, but has no very hish lanl: it is womally


 85,984. Lambayetue, the eapital, is situated om a Hain bordering the river of the sume name abmot finilus from
 tel and Eten. "The rivir is sabject to Hmale, whith havo repeatedy inunlated and nearly destroyed the town. Jisti-







 Ile is chofly boted fow his Iroshomens historite littomerume
 literatmre, and for his learmal ('emmenturie dor billouth.




Alaref (idulans

## 





 1764 to berlin, where Frederick IJ. mande hine a member of the Aeadomy of sciunces. Ilis /thommetrite sire de metnsuru et gratibics luminis enlornm et umbere (Ition) enontanis the first seientifie representation of the mensamenent of the intensity of light: and his lesegniomes obobler Comeforum Proprietates still oeconia's an homorable place in flae history of antronomy. Ilis metaphysald writings, on the contrary, are quite forgoten. D. at larlin, sen. 25. 17\%

Lambert, Joms: maldir: b, at Kirkby Malbamatle
 nutbreak of the great robellion contored the parliamontary
 ous in the princijall hattos or the war: was eobonel at Dar-ton Moner (1644) amd major-gneral in the seots war (1650). in which he rainm the actions of llamilton and Juverkeithing: was apointed lom deputy rif Ireland in 16is:
 and aided Cromwell to hecomberotertur, hat opposid his assumption of sovereigh ]owor in 16it. refoning to take the
 pension. In May, 16iot, he was ehictly instrumental in the
 ists af ('hester in Ausum: came intoconflict with and for-
 of the rommattere of safety and virtual riber of Enarlami. Lambrit started with an army to वryme Mank (November), but, the tromes deserting in ereat mamburs. he was som seized by molar of Parliament (Jano., 16if() and sent to the Tower, whence lie coscalnd and reasemblod forces against Monk; captured a secoml time, be was tried amd comelemmod
 Oharles 11. Dis sentemer was eommatm to banishment, and


Lambertille: city: llmaterdon con. N. J. (for lowation
 ware river. and the Jemm. lialtrond: 10 miles S . of Tronton.


 twine mills. Tha city in lighted wilh gate am! eloetricoty.




Lambeth: a saburb uf Jantum, wh the sinth of the
 by the Waterlan, Woemminetur, lambeth, aml Vimaball







 formaty andinal in it. and was in raslite a "ater-turnor.





 carried (ang. sea lasmos.


 aty of（＇ambrider，Willian Whaker ame＇lymal，Aroto











## 




















 matural fomm in modern alitione if the ahowe anthers． sie Orolli，Onomensfion（ieromis（vol．i．，aphondix．If． 45－（191）．

Alafer Cidmeman．




 patiater，D．at Bugisal，dim，I，wix．

W．A．＇．

 some years at homa in the study of thendery umber the tai－
 returned to his fither，then living in Tuscany，to devote
 from time to time to Plamene fur the bondit at scimation
 tortained a vory vivil intomet．It the ard of forty，Lam－ braschini puldished his dirs wht－at wotk which prosed




 his villa of sum＇arlani，and devoted himself exelasively to





 eral of the selomple in Themay，afterward of all the che
 with the sumprintombure of the l－titutadi stmbii superiori，


 ＋brenkier，gills｜：a clime if mallumes to which many








 the gills，which in mot form hatig as two homd flate fram
the 1tom－wall（where the bane of the gromp）．＇The foot ex－
 frecty fratruled into the strromating water，or，in thase

 －lall is an elastic ligament which tome to kept the two
 Cles，the namber if these forming the hasis of the groups
 bere furnarly divided．By ohbers a division was made into
 and ir puant at the hindar whe of the buly．The siphom （familine twall at the now of the cham）is a doble tumbar atructure formell by the edpes of the mantle，and oceurs well devennal only in thae forms with harrowing hatit． It there smers to iring water to the mollume am to earry away the waste．Whan the siphon is prossut it is furmished with mandos tor retret it ，and as these maches are attached 10 the－holl，the womburist wan tell at mee thy the mark－ ingo on the shell，whether the animal had a wedl－develoged siphom or mot．In the Lamellibrands there is no well－de－ velomed hom（henco Aoptata）：tentacles，cephatie sense or－
 montly are a biar of folds which some to bring currents of Water，and with then fimul，to the anening．The alimentary aman in long and convolutal，and in many stecies the in－ tom ine passes thomgh the hart．Some have the sexes sepa－ rate，whers have 1 hall mited int the same individual．Illare apatio．many orearring in fresh water，lint the majority are marinu ；nome is teres－ trial．
Tha subdivision of the La－ mudlibramelhata into smallor grouns has fong betn a difficult Irohben．The divisions upon the basjs of muscles am？man the presulace or abseme of at iphon widely divareed heally relatal furms．The tendency is to make the strneture of the gills the hawis．and Jelswerr＇s grompsaterdeptel here．The primitive gitl on chendium（s， Hobletsen）（momints of a central axis contaning bowl－vessels．


Fig．1．－A I amellibranch（Arca） showing the hinge line and sitell．
and from this on＂ithor xide arise a mumber uf gill－leaves，in mu＇h the same way that the harts arise from the shatt of the foilher．The gill－leares may be elongated，folded back ＂unt thementres． and be unital with their follows．and the chassifieation is basel primarily ufun tresa manditi－ （＂it toms．The manes of the＂pincipal fimiliox in cachur－ are are fiven be－ Јゃ，
Gider 1．Piofo－ brenthin．－（iills a feathered atomidi－ min．its fint pro judiner firely into the mantle cavity． limet with a areep ine divk．（＇arehral and plumal gan－
 tains 1 ho Numbler and Sulenomyider （1゙i゚ーい）
（16mid 11．Fili－ brumblas．－Gill． lanam mexdifima in－ ＂10 longe thramls －filammorath hent ajwi itwlf，


Hig à－A．Protobranch；B，Fibibranch：C，
 $f$, fons ；$i$ ，inner gill．fenf：m，month； 0 wukergill leat ；s，sentum：$r$ vimernalmass． and its tipextend
 － 1 nomider，Arecher．Trigonider，and Myfilider．
（Brbar III．／sehdoluntllibranchia－Giill filmments bound
together by viliated disks or hy vaseular procequas. (on tains the foctimide, stemeder, and (sitreedu.

Order IV. Éulamellibranchio. - lihaments nut listinguishable, the vastular commections bemige summeroms as to make the whole of each row ajpatar like a membrane ferforated ly mamerous holes. These art that true latmolijbranclis, and here are fouml the great majority of the bidvalbe mollases (loig. (')
 enlar partition, broken by londes, sepratiner a ventral from a dorsal mantle cavity (Fig. D). 'l'he l'uromyide and ('uspidarior belong here.
The oysters and elams are in improtant ferol chenent : the
 and the piling of wharves in the marine seas of the orlohe; while the pearl oysters amil the fresh-water massels supply the pearls and mother-of-peari. some live burind in mand or sabl, while ot hers become fastenel to solid whects in varioms ways. Thus the wysters grow fast to rocks or other" sholl.s. while the mussels and pinmate anchor themmolys byilken threads (byssus) spun by glamds in the foot. living for the most part the most serlentary of lives and protoeted loy then shell, they have but little call for sense organs besulas thome of taste and touch. Eyes are rare; they wrenr at the end of the siphons in cartain forms, while in the scallons (Jero linides highly developed visual organs oecur un the marain of the mantle. For the literat ure of the gromp, see MolLUSCA.
J. S. Kismisey.

Lamellirostres [1at. Irmelle, a thin plate + rosirum, beak, hill]: an order of birds contaming the ducks, in the widest meaniner of the Word, and the flaminerome Un most modern authorities the sereaners, Pilamedea ur, inhimu, are also included in the order. Exeluding these last, the members of the comer are characterized by a bill whose sidos are furnished with little horny plates, progectiona, or lamelles, such as we are lamiliar with in the common duck. "I'her ent of the bill hears a horny mail, the rest is corsered with soft shin. The toes are webbed. The palate is desmexpmthous, the sphenom has low, hasipteryernid farets, radimentary in the flamingo, the angle of the jaw is produced and curved upward. The equs are numerons, and the yonner are coveret with down aml ahle to run and swinn as soon us hateled. Lamellirostres is the mpivalont of llaxleg's Chenomorphes, less the llamingres, and is alnut symmymmis
 Goose, Swan, ete.
F. A. Lacas.
 de: politico-religions writer; b, at sto-Malo. brittany, Franme. July $19,175^{\circ}$; acquired very early a comprehensive knowle la of theologry philosophr, and history ; anlonted, thourh unly after some lositation, the ecelesiastical career : receiserl the tonsure in 1811, and took holy orders in $1 \times 1 \%$. It struck him that lack of true religion was the real canme of all the mental and moral trouldes from which the age sulfored: and although be moved along thromgh many and fery singular windings, and changed his standpoint and alliws mono than onee, at the bottom of all his lifferent viaws of the world lies the idea that the reseneration of the time dopends on a religions revival. The first work in which he" set forth his jlat with full puwer was his Essumi sur l'Imbetférence pn Muliere de léligion ( 4 vols., $1 \times 1$-20), a brillinit apology for the $\mathrm{f}^{\prime}$ hurch and the monarchy, hailal with "uthusiasm by the ''ltramontame cleres and the oldeconservative statusmen. but offensive to the Gallican barty in the French Chureh, and hateofal to all the differont shathes of democratey amb liberalism. It awakened a cortain suspij-

 ness to the Chureln, anm in the Church the himhool amburity was not sought for in the infallibility uf the ["In', but in the unibersal consent of all Chri-tians. In his next following works, Lat Religion comsidirie drms les Rapponds ceme

 zation of the existing ('hurch amd monarohy develnumb into a tendency towaml ruform of twoth; and aftur the daly revolution in 1830 las onenly broke with the whe monaroby, and
 tween the Church and the free constitational wownament.
 demned in 18:32 the views set forth in $l^{\circ} \mathrm{l}$ 伴mir. Sor wats he accepted by the doetrimaires, who felt that his prosent standpoint was mily an intermediate station from which he







 broke absolutely with the ("haruh, ind in his subsequent


 denocracy, as the paphotice expmondur of tha alliance lxtween thristianity and radicalinan. In isto he was anembthe wit the Constitumt Amembly: aftur the come dritut he
 ance with his will, his colves was takion to l'ore la (hane
 foneral rites: mot even at simple stome marh- his grave. His works hate been collected in dimates controtes ( 11



 Testament. follnwing tha bank of Jermatioh, atnl generally attributed to that frophot. It mands of live chatiters. biarth is composed uf twenty-two verase (excent the third, which has sixty-sis), atecorline to the mumber of boters in the llebrew alphatet, and is ath andostio eath verse herginning with a distinct lotter. The emontents are, ats imberated

 witin in the defeat of Josiah at Nariddo. and regard the referenee to the ruin of Jemsaldem as proliative ; but the internal evidence is decisive that it mast hatwe tren writtern after the went it commemorates. Little apposition has beren mande hy molern arities to the tradition dapival form the Ceptuarint text and suplurtell by the 'Tatmuti, whinh rofers its anthurship to deremiah, theating it ats an apmodix tothe oropheretes.
 town of Colombia, state of thatimanareat; lumutifully situ-




 idly inereasing.
11. 11. S.

 family uf Pioardy: was ume of there hothers who figuren larguly in Framoh palitios chrine and subsequat (o) the


 nty from tha mobility of Permme to the states-(ientral in
 in the bratrumion of the privilages of the matility and






 meth sipvot as field-marohal in the atmy of the Nonth: was






 by damis XVIll. in 1sit. and hatime his reign wis for four







 ture of a british redanha at Vorkhown, abd frometed to bo















 1ate wed IV/II





















 X. uf thy 天











































 did the dthriana. I. Ľ. S. Stmanft.

Iamina'riat [Mox]. Lat.. M, Nis. of lat. la mina, thin


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 - mall anmalo. lat limb ta a eroal extent on carrion. It





M. Lucas.
























and enormons teeth of Carcharodon are fount in Trettiary beds. Revised by 1). S. .torbas.
Lamoni. Daviel Soort, A. M.: T. S. Sefeptary of War;
 ville Acaltmy and Cuion College. Mr. Lammont warivate secetary to Mr. ('lewamb while (rovermor of New
 ing his first term at President 1085-x!. In 1840 ha entured Mr. Cleveland's cabinet as seceretary of War. C. 11. 'T.
 critic: b. in Paris. France, din. 17, 16i2; studien in a , lemnit college; obtainel success in writing operas of thu pastoral typand also with four tragedies, of which Inez de Castro"(12:3) is considerel the best. He leceame blimt at the age of forty; was ahmitted to the Acumbmy in 1710: was dramatic censor, and noted for the literary paralloxes in his critical essays. He wrote many fables, coles, and eflogues, dejereiated Homer. and bronght out an "improved and corrected" Iliul in Fronch verse, retheed to ten bowks. Which involved him in a violent controversy with latham Dacier. I in Paris, Hec. $24,10: 31$. His complete works furm 10 vols. ( 1754 ).

Revisel by A. (i. Cinfielb.
Lamp [from O. Fr. lempne Lat. lrmpas = Gr. $\lambda \alpha \mu \pi \alpha s^{2}$, toreh, candle, lamp, leriv. of $\lambda \alpha \mu \pi \in t$, shine]: a contrivance for proviling liglit by burniner some liguid, whinh is raised to the flame by means of a wick, and so burned slowly fuld regularly. The simplest lamp is a mere howl or sancer, in which a wick is dipped this sometimer loats in the combustible liquid, being held up to the surface at me end by a floating ring or thisk, amd sometimes lies on the edge of the vessel in a groove or corrugation, or spont mate for the purpose. The lamps which hang in the mosphes of Dambscus and C'airo, often of splendid enameled glass or Persian decorated pottery, are of the former kind, as are the silver and brass ones so numerous in the larger Roman Catholice churches of Europs. The Greek and Roman lamps were generally of the other sort. They exist by thousands in museums, ocanionally richly adorned, bnt much more commonly made in the cheapest way of common pottery. The bronze lamps of Etrucan make are sometimes very richly adorned with relief senlptures. Some have several wioks; one in the Nusemm of Cortoma has sixteen, surrounding a central reservoir: this one was intended to be hung from the ceiling or from a projecting arm, as it has no foot, and the under side is richly alornetl. Some bronze lanus found in Pompeii, and now in the Naples. Mnseum, are far mure delicately and taxtefnlly mate than the Etruscan specimens. One large one at Naples has a beantiful stand of bronze about 6 inches high, evilently intended to rest upn a table. and to raise the low and flat lamps to a convenient height for reading. Among the Liomans of means it was more general to rest the lamp upon or to hang it from a Caxdelabrum ( $q . u$ ). It is not known that the ancients had any means of increasing the light, stanging the llame or preventing smoking, such as the motern limp-chimney.

All the modern daviees for improved lightiner by means of lamps consist in new thails for burning, or in applinees for making the lame brighter and steatier, or both. Thu* petroleum has been used in $A$ sia for many centuries, hat modern ingenuity hav providen a purified form of it, and has also furnished lam which burn it without smoke, with a vivil and stealy light, and with litthe danger of explowion or of the flame communicatins with the flnid in the resprvoir. Of all these improvements, the ireatest is the lampchimney, produeing at stealy mpart curront of air. The cylindrieal wick, moring uf or fown betweth two concentric tubes, ant allowing the air to reath the insilde as well as the outsifle of the flame, is a farther anvance: this, of conrse, would be impractieable withont the chimner: There are certain devices which aim to supplement anil assist the capillary attraction of the wiek. ateh as that of the moterator-lamp, which has an appratus with a pistom pressing lownwart upon the oil in a tube ant controlled by a spring; and the eareel-lanp, in which a eloekwork pump keeps up a stealy suphy uf oil.
By extension the term limp is applied to many lighting appliances which are not based upon a burning liquid: thus the oxyhydrogen light in some of its forms is callet Dobereiner's lamp, Drummond's lamp, and by wther similar names, and in electric lighting it is usuial tor speak of are-lamps and ineandescent hums.

Lampadedrómia [in Gr. лаипабдброиia, the terth-ruce]: a race originally intended to commenorate the bringing of
fire from haw by bromethens, who conealed it in aread,
 spark alive. foreral tilse, with areral melays of racers in wech tile. eompured with tath other for the prize. Ean runner hall to maintain at himh rato of - weel. and hand over the tweh still lighted to the west rumer in his file. 'Thos last mumer ina givan file, whe firet reathed tho gral with his toreh lighted. sained the vietory tor his tile, so that he was sumen of as the first and lant rumer. This rate was the
 Groek word, for it was heh in hanor of all the fire tmo lisht gouls.
J. R. S. Sterrett.

Lampasas: city (former govamment abolished 1swo. present eity orgatizon Apro, 1sam; fapital of Lampanas
 4-11) ; on the Sulphor fork of the Lampras siver, ant the
 It is in an arricultural and stok-raising rowion, has an as-
 a national bank with eapital of şuiomo and it monthly amt


Lamphark: a terin affled technienlly to carbonateons pulsernlent matters deposted during the imperfect combustion of eathretten gases or bapors. 'Ihe quality, buth
 and brinting-inks, varies greatly with the materials burned in the manutacture and with the methols emplowet. For the eheaper commercial qualities the materials amponen
 pine phech, rosin, and even bituminons anals. ln making ordinary lamplack several qualitiss are obtained at the same time in the same "tyaratus. Wy mean of the following arrangement: The lirepater is comneted with the soutdhanturs ly means of a lrickwork gallery or horizontal the at least 14 deet longs. in which inforior tarry material depesits. A series of thambers or condensers then uswally follows, in which the successive mepasits increare in fineness ant value successively. The lant chamber has shopenden over it a lonse conical home, ul compe women material, through which tha hranght arenlates. and which of conss eollects the finest bark of all. As the pores of this hool become clogget it is shaken or tappent. Its contents are reservel for fine printersink and sinilar now.

Lampliack in erute form always contains some oily, tarsy, or resinous matters. When jopinter's inks or nil-enilors are to be prepared, these impurities are immaturial, but when water-colors ate wanteld, as when to he ground with gum-water to make imitation India inks, rac., the resmos and tary mattery must he remone beforeand. This may be done ha eareful ealeination, that not without detriment to the quality of the tiner blacks. A hetter way, therefore, is to work into a pate with heated of of vitriol, which chars and destroys the hedrecarbmatems matters. Thorongh wather with water gields then a very superior material fur tudia juk. deviand lay Ira hemses.

Lamprey [A. Eng. lempreie, from O. Fr. lemproie < Lat. lam pertra (later lempetra). lamprey]: the eommon name of Hhe Petromy matider. cartilaginms fishes of the eromp Ify-
 romb, sucking mont h with numerous teet h, and seven romm grill-heles on tach sidn of the metk. Europe has two athudant secies the l'tromyzon marinks and lefomptra furiathlis; the U. S. haw i mumber of sperien, anong which are $P$. murinns and spures of 1 momectos amd nearly allied gentra. They are prizel as ford hy sme. The lamprys are represpatiod in Australia hy the pouchent hamper (firotria austretis), whith has an memmens puch upon the thmat. Sed letremyzastide.

Lampridills, Flits: one of the seriptors hisforice Alugutif, who lived in the time of fonstantine the freat. Four bos raphis are inceribed with his name-namely. thme
 Aleximber Severus. She Alghatax Hetori.

## Lamps: sue Jamp.

Lampsachs (Aduqakos): ancient Greek יity in Mysia, on
 center of phatlic wordip. With Mynz and Magnesia it was
 exist. Lapmaki, at montern village of don homers oceuphes the ancient site. F. A. G.

Lamps. Electric: devices for convertine the energy of an electrie eurent into light. The two shatem of lighting




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 und latuge for alternation corremat－




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 －Suatit lo tha atro
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－lant lanith．






 pancila is lewe than a petatermined value．＇The variation
 i－from and to five volls．
Ar－lampo mdipted to molitup lighting on comstant po－ Whlial virent coblata maly a shant magnot，which serves

 F゙is．－－hows the artmat mechanism，and tig． 3 an ontline of the part－＇I＇M nathe of the lamy is dorimel from the Intral of colltry which is Wotarl th the drumb b．and


 the－druma，ha piniont－uheres，

 shant tutho：are．Iteattrac－ lonn of it－irnin irmature．e． athl the Wetimht if the car－ bun－folder draw domn the

 site liesetion．When the
 pinionbowherels revolve amd

 idly．Su lome a－the frame is Heare its lighest Insitiont， a tumern froperting from a striken a stop．dt，atul the motion of tha wencotraim is arratod．W＂an the frame
 is foldaside and the enpper band is slowly unwormd from the dram liy lhewnitht of the carben anil holder．

When the entront is turned an．the matimet m draws down the frame the
 buties the carlmas tureother． ＇lobir divares tha current fromer the matrone and the

 carlanm Bytarenparation of the（atranas the mathet


Fia． 3. draw－lasn the fratar fo a protion of mpilibrinm．Any incran of the ame than villars an exeitation of the magnet
 start the limbimemohamism．＇The foce of the lamp is thus smented at remblat lan－imarvals．









 tathtally thay same matharg as thase far dired eurrents． ＂pt that all iron conaloning the cores and armatures of

The liphtamitime prtinn uf an incambescent or glow－
 trmparatare at which it an ho ran．The jussible limit is the＇＂mp＂ratare of the volatilization of earlon，which is probably lawer in a vamum than at atmospheric pressure：
but there is another effect, which puts a lower limit upon the temperature which can be maintained in practice. When the filament is above red heat an action begins by which the carbon is disseriated and is projected upm the inclosing bulb, which gradually blackens by the deposit of carbon bartieles. This disintegration is greater with filat ments having a dead-black surface than with those possessing a smooth, hard, steel-gray one. Hence the latter is usually the better, even thonghits emissivity is smaller.

The successful processes of manufacturing tilaments require the use of materials containing carton in chemical combination with other elements, such as


Fig. 4. cotton, silk, wooly filher, or pure cellulose. Surh materials, after being reduced to the froper form, require baling at a high temperature ont of contact with the air, and then raising to incambescence by meams of the electrie chrrent in an atmosphere of hydroearbon vapor. The first process is called earbonization: the seeond llashing. Br the first, the volatile constituents of the flament are driven off, nearly pure carbon remaining: by the seend, the filament is coated with carlon from the dissociated vapur, the deposit assuming the silvery-gray luster so much desired tor endurance.

Filaments mate from the bamboo by Edison's process are cut and shaped, bent round a form, and carbonized. These may he used without further treatment. but they are improved by the flashing 1 rocess.

The Swan proeess in England eonsists in barchmentizing entton threat by drawing it through sulphuric aeit, which converss it into a substance called amyloid. It is then shaved down by pulling through a sharp-edged draw-plate, carbonized on a form which accommodates itself to the shrinkage of the thead during the leating. cut into the required lengths, subjected to the flashing process, and mometed in a glass globe.

Another process of treating cotton, resulting in practically the same substance, consists in disolving cotton in a solution of zine chloride, forcing the riscous solution through a small hole into a ressel containing alcohol, which hardens it. This produces an amyloid thread of such uniform erossseetion that no sharing by a draw-plate is required.
In Weston's process the cotton is first conterted into pyrosyline and then into celluloid. This is rolled into thin


Fig. 5.-Sixteen.candle lamp. sheets and treated with ammonimm sulphide. which eonverts it again into celhlose. 'The filaments are cut or stamped out of this flexible. transparent sub, stance, and they are then carbonized in the usual way.

When silk is used for making filaments it does not require the action of acid, but it may be carbonized without preliminary treatment. Special presontions mast be taken with the temuerature during the carlonization of anmal substances.

The treatment required to give to the filaments the rerguisite thin eoating of dense carbon is best ajplied before monnting, because of the brown delosit which appears on the glass envelope. The filament is mounted in a rarefied atmosphere of benzole or pentane (Fig. 4), and is kept at a bright-rel heat by the electric eurrent till it shows the desired resistance. This process reduces the resistance by thickening the filament, and at the same time reduces the emissivity. The filaments are attacherl to the in-leading platinum wires by a cemented or deposited carbon juint. This deposit is best mate in a hydrocarbon liquid. The filament is so i.lamped to the wires that the cement which heats the joint passes through only a short length of the carbon near the platinnm. A misinre of four parts of best kerosene and one part of turpentine gives a rapid and harid de-
posit. Without danger to the operator. The filament near the joint is raised to a bright-red heat, and a hard joint may safely be made in the liguid in ome mimute.

The finisherl filament is finally mounted in a glass receiver, the ar is exhausted as perfectly as possible, ant the globe is then hermetically seadel. 'The globe is provided with two bras terminals (Fig. 5) , connected electrically to the enals of the filament, and these serve ta connert the lamp with the lighting mains by meams of a serew or friction socket.

The dianneter of a romnd filament may be expressed by the following furmula:

$$
d=a c^{\frac{2}{3}}
$$

where $t$ is a constant and $c$ the current. The con tant $a$ is mate up of two others, $a$ and $\beta$. such that $a=\left(\frac{\beta}{a}\right)^{\frac{1}{8}}$.

The following ralues of a for flaments flashed to grive a definite ratio between their resiance cold and hot hare been computed by (i. A. Laim :

| Colid revistance. | Conductivity of flashed filament (hot). | $a$ | $\beta$ | ${ }^{a}$ |
| :---: | :---: | :---: | :---: | :---: |
| Hot resistauce, | Cuthurtivity of equal tilament not Hazhed (hot. |  |  |  |
| 1 b | $1 \cdot 168$ | 1.43 | 1, 115 | 1062 |
| 1.7 | 1362 | $1 \cdot 43$ | 1, 69 | $10 \cdot 09$ |
| $1 \times$ | 16 | $1 \cdot 43$ | 1.850 | 938 |
| 19 | 19 | $1 \cdot 43$ | 1.053 | 902 |
| 20 | 2 S | 143 | Ricis | 8.45 |
| $\because 1$ | 2 CH | $1 \cdot 4.3$ | \%1\% | T. 91 |
| 29 | 354 | $1 \cdot 43$ | 56.4 | 7-35 |
| 23 | $4{ }^{4}$ | $1 \cdot 43$ | 4.33 | $6 \%$ |
| 24 | 6.44 | 143 | 311 | 6.01 |

An improvement in glow-lamps consists in filliner the globe, after exhamstion of air, with a rarefed vapor, pref"rably one containing carbon. This vapor is not simply an inent gas to dreserve the carbon from chemical attack. but it has a reparative function. By its means the waste of the carbon, due to the disintegratine action previonsly described, may be at loast partially compensated, so that the efficieney of the lamp remains more nealy constant thomphout its entire life. A filament worheated in sutla a bapor thickens and falls in resistance, while one oxerleated in a racuum inereases in resistance.

For further details relating to the histors and manufacture of incandescent lamps, reference may be made to The Electrir Light. Alglave and Boulard: The Incondescent Lamp and its Mamufacture. Gi. S. Ram.

Ilevry s. Carmart.
Lamp-shedls: a name applied in a larore sense to all the Prachopond (q. vo, but expecially to these of the family 'Terebratulidex (q. 2.). The valyes are mited, and the pedicle for attichment pusses out through a foramen of the projecting one, as the wick passed out of an anciont lamy; hence the name. Shells of sereral species of mollusks ure also nsed as lamps (as the Fusus antiquus in shetlimd).

Lanarkshire or Clydesdale [Lanark is from C'rmric Llamert, a forest glade]: from its mannfactures amil metalhurgic industries and mineral


Lamp-shell. wealth. the most important of seottinh comnties: bommed on the N . hy Dumbartonshire and stirlingshire, on the S. liy Inmfriesshire, on the W. Hy Ayrdire, Kenfrewshire, and Immbartonshire and on the E. íy stirlingshire. Linlithgowshire. Midhothian, and Pechleswire. Area, 882 sor.miles. Thu county is traversed by the Clyde, Which, rising in the extreme sonth. flows generally X . amb S. W., and falls into the Firth of Clyde at lhimbartom. The whole of the Clyde basin is ucomped by a C'arboniferous formation, with valualle beds of coal, iron-stone, athl limastone. The surface rises from nouth to somth up the valley of the Clyde attaining an altitudn of $2.40:$ feet almwe sealevel. The village of Leadhills ( 1,30 feret) is the highest inhabited land in Scotland.

Diztisions-Lanarkshire is poverned hy a lord-lieutenant and a connty conmeil. For administrative purpeses it is divided into throe wards. Epper, Middle and lower, of which Lanark, lhamiton, and Glasgow are respectively the capitals. For parlizmentary purposes the county has six

 Fatherh in ：



























 limited matil the diownery of the harkhand iromatone wai－ jonned wath the invention of the hat hlant hy Nalant．Which








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## 













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 Whamelhir in the hurby hat his lowal duties are merely
 and fromenly a cobine mininw．Tho duchy of Lancaster

 tion．The almim－tratise lumy in lamehire is，as in other



 mombor retmond by Pombal．exclusive of Wales．Of than，thaty－thra are enmy members；the rest represent 1ヵかいいに。

 Liela manty what the therition of the eounty of London．
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 ami Wrandey，war Manmorar．is that if the Earls of Elles－ mime．to whom it has draconded from the last Duke of Lifiligwan ar．tha fomuler of Pritish canal navigation．The



 （hatur shipemal．see Maxmotin）A new railway，the

 at Warrinetoln，athl hating its termimus at Sutton，on the Limalnanier cemin．
 of Lanemhin has hern the mandmeture of coton goods， and the combty i－the cemto of the cotton－manufacture of 1ha world．This perminelore is in great part due to the



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 tinn if ：： in lamhine dyents．and printing adienes．Among other















created a county palatine of Edward III. At the Reformation many of the old families remained loyal to the 'loureh of Rome, but the mildle class became strongly lrotestant, and with the trimmph of Protestantism hancashire was almost the only county which adopted the l'restyterian form of church government. The dacobite rebelions of 1015 am 1245 found many atherents in Lancashire. Through the develoment of the cotton-manufacture bancashire became not only populous and wealthy, but jolitically important. It was the headquaters of the Anth-Corn-Law Leagete (q. $\boldsymbol{r}$.), which overtherew the curn-laws and with them m weetion. Since that achievement the principal incident in the history of Lancashire has hecn the cutton famine eatused ly the eessation of supplies of cotton during the civil war in the U. S.
The best work on Lancashire is the History of the Duchy and Connty Pratutine of Lateastor. by Edwart Baines (4 vols., Bd ed. 18s(t). The standard work on the cotton indutry is The IIstory of the Cotfon-monufucture, by his son, Sir Elward Baines (183.). Of the development of the cot-ton-manufacture since 1530 , there is an instrutive sketeh by J. Shage. formerly M. P. for Manchester, in wol ii. of Humphry Ward's Reign of Tictorit. Alwo see F. Fspinasse's Laneashire Worthies (2 series, 1sit-it), which includes lives of the founders of Lancashire industrialism in the eighteenth and nineteenth centuries. F. E.sprases.
Laneaster, lang kas-ter: the capital of Laneanire, England; on the Lane, near its mouth; $51 \frac{1}{2}$ miles N. N. W. of Manchester (see maj of England, ref. (6-F). It is a neatly built town, with an old castle, a fine adueduct, which cariries the Lancaster Canal across the Lane, and manufaetures of furniture, leather, and cast-iron work. Pop. (1891) 31,038.
Laneaster: tuwn; capital of Coos en.. N. H. (for location of county, see map of New Ilamplife, ref. $3-F$ ) : en the Connecticut river, ath the Concord and Mont. and the Me. Cent. railways: $1: 3 \mathrm{~T}$ miles N . of Concord. It has a churches, public library, an academy, several manufacturies, and ? weekly newspapers. Pop. (1850) ?.2e1; (18:0) 3.373; (1803) estimated, 4,000 . Editor "Coos Couty Demoerit."
Laneaster : village; Erie co.. N. Y. (fur Iocation of county, see map of New York, ref. (-('); on the lel., Lack, ambl W. and the Lehigh Val. railways; 10 miles E. of Butfalo. It has manufactories of foundry promucts, glass, soap, brick, flour, and tanned leather, and it weekly newsparer. Pop. (1880) 1,602 ; ( 1840 ) 1,692.

Laneaster: city; capital of Fairfiels co., O. (for location of country, see map of Ohio, ref. 6-F); on the Hocking riwer and the Cin. and Musk. Val. and the Col., Hocking Val. and Toledo railways; 30 miles S. E. of Columbur. It is in an agricultural and natmral-gas region; has a court-louse that cost $\$ 150,000$, several public schools, and 2 daily and 4 weekly newspapers; and manufactures llour, fonmity products, shoes, glass, and agricultural implements. The state farm for the reformation of boys is in the suburbs. Pop. (1880) 6,803; (1880) 7,59.

Filitor of "Gazette."
Laneaster: city (settied 1~29, state capital $1 \sim 90-1812$, incorporated as a city $1 \times 18$ ); capital of Lancaster co., l'a. (for location of county, see map of Pennsylyamia, ref. (6-HI) on Conestora river, and the Penn. and the Phila, and heading railways: 36 miles E.S. E. of 1 tarrisburg, 68 miles $W$. of Philatelphia. It is in a rich wheat, tobaceo, and limestone region, and is noted for its manufactures. The census retmens of 1890 showed that 50 manufacturing fetahlishments (representing it industries) rejorted. 'These had a combinel capital of $\$ 7,389,952$; employed 2,350 persoms: paid $92,362,835$ for wares and $8,5,85,76.5$ for materials: and had products valued at $\$ 10.293638$. The manufactures included cotton goods (eapital investment $\$ 1.93 .109$, value of products $\$ 1,336.384$ ) , cigars and cigarettes (capital $\$ 1.740$. 098 , products s.3,022,28) ; foundry and machine-shop prod-
 riages and wagons (capital $\$ 28.8050$ ) : and confectionery (capital $\$ 231$, os). The city is the seat of Franklin and Marshatl College (German Reformel, organized 140), which in 1892 had 19 professors and instructors. 290 students. nearly 20,000 volumes in its libraries, and an endowment of $\$ 490,000$, and comprisel a college of liberal arts, a preparatory acalemy, and a theological seminary. The city has an assessed valuation of over $\$ 15,000,000,8$ libraries of varions kinds, 7 natimal banks with combined eapital of $\$ 1.655,(000$. and 5 daily, 10 weekly, and it monthly periodicals. In 12:a,
during the occupation of Philadedua lay the Britinh, the Continental Congress held its sessons in lancaeter, and in 1818-2.j the citr was the largest inland wie in the $\mathrm{L} . \mathrm{s}$.


Lancaster : thwn: Capital of lameastar co., S. C . (for lu-
 the Rech. and Sams, and the ('harleston, ('in. and ('his. rail-
 gion. and hat o churches for white peple and : for colored,
 1,0!4: (18! ! ) estimated with suburts. 1.400.

Editar af " laedier."
Lancaster. Ioseris : educator: a member of the Society of Friends; b. in Lombon, Now. 25. 120s; opened a schomi
 thal instruction, and having achieved a brilliant suecess, estahlinhed mumerous schenk on the same flan in other cities, and devoted himself to the popularization of his methol. In 1 s 1 s he remored to the U .5 s ., where he had some success. and ohtaneal from the begishature of Canala a grant for the furpme of wablinhing his system of instruction. D. in Now Yurk, Met. 23, 140. His family removed to Mexion, where several of his grandehidern under the name of han-cater-dones have figmed in politiex, and where his system was received with much faror, and was suphorted hy legislative grants umler the management of a bational hanmasterian socicty. 'lhe same system has been largely ablented in Colombia and other farts of south America.

Lancaster, Duchy of: a teritorial division of Englams mearly corresponding to the enonty of Lancashire, but distinguished from it in law an a separate adminitative entity. It dorives its arigin [rom a roval charter of Elward 11.. by which it was conferred upon llemy. Earl of Verby, Alar. 6.13 .51 , and on his death in 1:62 it was grated to the king's son, John of Gaunt, and his heirs forever. It received a grant ol a chancery and palatine privileges in 1:fat; became a crown presersion on the accessim of lemry IV. to the throne in 1330 at which time the arter of succession to the duchy was declared to be independent of the succession of the erown, so that fhomla the houre of Lancaster lose the latter it mightstill retain the former. This expectation was not realized. for on the accession of the house of York in 1461 Edward N. eronfisated it to the crom, and in turn attempted to make it a pivate anmage of his descendants. To this Parliament gave its comsent, but it was providel that it shonh be "held separately from ail other bereditaments." As aresult of this, the government of the duchy has bren vesteal in the sorereign, not as Kirg of England, bot as Duke of Lancaster, and the revenoes of the duchy are exempt from furlimentary control. (See Laveashare. Since 14.03 the administration of justice has been assimilated to that of the rest of the country.
Lancaster IIonse of: see Exglasid, Jouy of Gacit, Uemry IV.. V., and V7.

Lancaster Sound: a bode of water leadine from Bafin's Bay to barrow Strait, between the island of North levon on its northern side and several minor islands on its sometheru. It is ${ }^{5} 50$ miles lons, forms the entrance to the northwestern pasage, and was discovered in 1616 by battin.

Sance: a thrusting weapon, designed to be used in the hand, and mot thrown ss a dart or javelin. It derives its principal effect from the welocity of attack. and for this reason is used by monted men only. It was the fatorite wetpon of the knights, and as ued by them was sometimes 20 lect long and correspondingly heary. The modern lance is nsually from 10 to 12 feet long. the handle of hollow sted or tongh wow, and the hiade of sted ahout a foot long. A small thas or pemon is fixed on the handle near the head. The lance is nut used in the [. S . or in Anstria, aml although the typieal weapon of the Cossacks and other bastern tribes it has been in part replaced by the saber in the Russian Cossapk regiments. On the other hand, it has ween adopted in remmany the frincipal an "il the cavalry, and in addition to the carthe and saber is carried by all monnted trops (1s! 4 ). It is uent to a greater or lese extent 1 y the armies of other Furnman jowers, am] the tendency to its abamonment which was develonel after the wars of 1870-71 and 18:7-is sems to have tren somewhat checked by the action of Germany. The oth, !th. 15th. 16th. and 1ïth British light cavalry are lancers. James Merctr.

Lancelet : See Leptorarint.
Lancet Fishes: See Acanthirid.e.








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 orn parts ato hilly and fertile and well aldelped for agriwhare: math exollem wine is prolumd. The western
 (hand os) of smblumhs. marshes, aml swams, covered with
 famitien, when mombers talk along motits in the sand,
 anllupt trems, and thae plantations aflind some resourees in ther inhatiant in conkernting and chatroal-burning.



 (irat hriathand beland. Dialoses in the perer regions of the laller intand lecame bry achuc and, as has always
 Twom lamdents and tomats increasel in intensity. The
 ifucatinn of ararian crime and hostile encounters between pombare and phere. Dichat havit, a well-known agitator, mencived in 18 ath the plan of a gemeral organization
 thar internet in the existing emates ame of agitating for a
 the autumn "il that yar Mr. l'armell, who was just assumine the lealmalip of the Home lable parts, became convinom of the utility of the project. Aecoralingly, on Oet. 21. 1si! a moning of prominent Irishmen at the Imperial Hutp, in [balin, remelted in the formal orpanization of the Iriol Natsonal hamd lagrue. Its ohjects were dechared to the first. toreflect a redurtion of rack-ruts: second, to promite the warehip of the land hy the cultivators. Mr. Parmell was chman prmident; Mesers kittle, Davitt, and

 and mombor- repreenting all parts of Ireland. For the d.e.chomant of the uramization it was promed to establish a latand of the leara in arery parinh or group of parishes in lreland, whth at memberaip fee graduated acording to Hh. vallo. if tha tematis helding. Eath liranch was to he ambor the immatiat" sunrrivion of the central executive, and en the tirst of weh montla half of the fauds in hand

 estabishmme of attiliatml hanches in cirat Britain, the
 many minel by the amazation was to be dewnd to the


 Cial innl moral ouplort in tho uranized effort to extirpate land mation from the son of lratind. Confiscation of hadhrilts rights wis mit admomed; but the transference of

 10) Fo imlinnonable to the panarity of the land. On the











 - of wiotion, wh whe farchated sork or procluee seized

 Where wortal for the frevontion if estidions and for the
reduction of rents, and as its membership grew it beeane the real arbiter of all questions between landlords and tenants. The aritation romluctul by the league, and the real listress that was conspicuous in Ireland, led Mr. Gladstone's newly established govermment in the summer of 1880 to take up a bill which had been originally proposed by an lrish member, providing for a temporary suspension of evictions for non-payment of ront during the existing distress. The measure passed the Commons, but was rejeeted by the Lords by an overwhelming majority. This aetion was followed by a grat increase in the agitation in 1reland. The leagmes membership and income greatly increased, and agrarian disturbances became more serions. In the autumn months the historic incident at Capt. Boycott's Mayo farm gave an enormous impetus to the practice which soon came to bear his name. Mr. Forster, the Irish secretary, found it practieally impossible to enforce the laws in the face of the hostile influences which developed under cover of the league's authority. In Now., 1880, the Govermment instituted a prosectition on charges of conspirac' $Y$ against Parnell and other leaders of the league, but failed to secure a conviction. At the opening of Parliament in Jan., 1881, the cabinet announced a bill dealing with Irish land tenure, and at the same time coercion bills, hased on the disturbed condition of lrelam. The coercion measures, after exciting and revolutionary seenes in the Commons, llue to the Irish members' oplrosition, were prassed by Mar. 1, and the anministration was thus enabled to contend on father more even terms. but with searcely greater success, against the agrarian movement. As to the crime whieh was rife in Ireland, the chiefs of the Land League were sufficiently explicit in denunciation; but their indluence was inadequate to control the passions which were aroused by the agitation. Where the boycotting of land-grabbers was anthoritatively recommended, a more positive form of maltreatment might be expected to follow in many eases: where defraying the legal expenses of persons charged with agrarian crime was generally reengnized as a relief of distress within the purview of the league's fiuancial system, it could hardly occasion surprise if hranches in the less enlightenerl fegions made positive appropriations for the commission of crime: and where the arowed policy of the organization was to abolish unjust rents, it was not a long step in the tenants' thought to the conception that all rents were monust. It was hoped by the Government that the passage of its Land Bitl in Aug., 1881, would cut the gromal from under the agitation. The law, however, while immensely bettering the legal position of tenants, fell far short of the abolition of landlordism. While a part of the less extreme element in the Land League was disposed to aceept gratefully the concessions obtained by the law, and to suspend the agitation, a convention of the organization at bublin in September indorsed the policy recommended by Parnell, to test the utility of the act for getting relluced rents, but, until a favorable result from the test cases should be secured. to maintain the attitude of resistance to the landlords. This action sealed the doom of the Land League. Mr. Gladstone angrily denounced its proceedings as trcasonable, and prepared to suppress the organization. Already the ticket of leave under whieh Davitt, a convieted Fenian, was at large had been revoked, Wavitt. Dillon, Sexton, and other leaders had been arrested as suspeets under the enereion acts, and the funds of the league had been removell by the treasurer, Patrick Egan, to Paris. On Oet. 1; Parnell was arrested and committed to Kilmainham prison, where in the next few days most of the other chiefs were sent. The prisoners promptly played their last card by issuing from the jail the famous manifesto calling un their followers to refuse entirely the payment of rent to the landlorils. As promptly followed the Government's proclamation, Oct. 1s. declaring the Land League an undawiul body, and decresing its suppression. After a stormy career of just two years the organization ceased to exist. Agrarian agritation continucd in a less systematie form to disturb lrelamd, and a year later the programme of the Land league, together with that of Home Rule, was ineorporated in the constitution of the Irish National Leagur, which, under Parnell's leadership, achieved many of the objects of the earlier association. See lrelanio.

William A. Duxaing.
Landlord and Tenant [landlord is from O. Eng. landhlaford, owner of land. ruler of a commtry. See Lond]: popularly, the owner of land and one who in, ly arreement with the owner and subject to the latter's title, entitled to
the temporary possession of the land. The term "owner" is used in a very relative sense, howevor, as any une who has an estate in lands, whether it bo a fop simple, a life estate, or nerely a leasehold, may be a landlord: the noly requisite to the existence of the inlatim being that the lamilord shall have some portion or fragment of his estate left after the termination of his tenant's estate. The estate or interest of the tenant is called a "term"; that which remains to the landord is known as the "rosersion," being that interest in, or remmant of, the estate which returns or "reverts" to him when the tenant's term eomes to an end.
'lhis conception of tentmey is all that survives of feulal tenure as it prevailed under the tarlier common law. By that system ajll lands were lield of and in suburdination to, greater or lesser lorns. 'This was true ewen of estates in fee simple. notwithstanding the fact that they might foe alinnated by the holder, or"tenant," and that, if he died seised or prosesed of such an estate, it would descend to his heir. Such a tenant, whether in fee simple, or for life, or for years, or at will, was bound to make return for this "holiing." or temure, by rendering rent or other feudal services to his lord. If this tenant of the lands sold them to another, he woulll himself stand in the relation of a lord to the purehaser, and the latter would be the tenant of the seller and would be hound to remder to hin the rent or other services due. And so the process might go on, creating an indefinite nmmber of lordships and tenanodes intermediate between the original lord and the present temant or owner of the lands. This process of subinfeudation, as it whs ealled, was abolished by the statute quia Emptores (18 lidw. 1. A. 1. 1390 , which destroyed the relation of landord and tenant in all cases exeept where the lord granted away only a Iart of lis interost in the land, so as to leave a reversion in limmelf. This lett the rolation ot tenure or of landlord and tenant, intact muly where the holder of the greater estate conveved the lands to anothir for life, or tor a term of years, or to be hold at the will of either party, and these are the forms in which the rolation has survived to this ray.

Tature of the Relution.-The estate of the tenant was conceived of at common law as being a practical nwnership of the property during his term. Ile was the " particular tenant," while his landlord. Whose ealate was post poned luring the continnance of the term. was described as the "tenant in reversion." The farticular tunant combl convey lis interest, whatever it might be, in whole or in part, without consulting the wishes of his landlorel. The latter, however, having barted with the "particular" or present estate, had incapacitated himself from further conveying the property by any of the methods of alienation known to the emmmon law. Ilis estate in reversion was regarded as a more future interest, an incorporeal right, not susceptible of seisin or of present conveyance, and he could transter it only by a writing mmer seal, teehnically known as a "grant," and which did not become a complete convoyance even uf such fature interest until it was acoquiesced in by the particular tenant. "The eonsent of the latter was namifested by his "attoming " to the rrantes of the reversion; that is to say, by making some formal acknowledgment of the newcomer as his landlord. "This complex process, known as "grant and attornment", was the only possible method of convevance to a stranger in all cases where the land was subject tu a life estate or to a term of rears. There was nime other mome of alienation permitted to the landlord without waiting for the term, which post poned his enjoyment of the estate, to come to an end. Ile might, after the partioular tenant had taken jossession, or "entered" umber his lease, convey his interest directly to the latter by a "release," as it was callenl, of his reversion. This relensp like the "grant" above des"ribed, was also effected hy a writing under seal, and it ureratel to vest in the particular tenant the greater but remote estate of his landlord, which, comhining with the temant's risht of present fussession, gave the latter the antire estate of freehold of which the landlord land orisinally heen poscessed. This result is technically called "nerger," which signifies the merging or " lrowning" of a lesser estate in a greater, when both berome vested in one and the same persom without the intervention of an intermediate estate. Siee Memier.

There has been but little change in these relations of landlord and tenant, with the rxention that the furmer may now convey his interest in the proparty to al stranger without the necessity of an attormment on"tho part of his tenant, and that the tenant may accept a roleame of his lamblord's estate without having first mate an actual entry upon the lands conveyed. Ittormment was abolinherl in Eingland































































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nants of this kind can be created and only such as directly affect the nse and enjoyment of the haml have heen athowed to "run with" it. (ovenants to pay rent and to keepremises insured are familiar comenants of this kims. Whether the covenant be one which runs with the lane or mot, the lessee. in any event, ramans liable during the entire $1, \mathrm{n}-$ aney, or until the contrat butween the parties has whilly spent its force. 'The assignop. on the ither haml, being liable to the lessor only we the gromm of his relation to the estate, may terminate all responsibity to him hy making an assigment to a second asigne. Thare may thens hem indefinite series of assignecs, any one of whom will be liable for a breach of covenant oerthring during his ownership, but not for any occurring after he has partal with his estate.
The obligations which spring naturally ont of the relation of landlord and temant, withont expers agrement, "implied covenants" as they are called, may be brietly considered. The principal ones are on the part of the lamblord, to secure the tenant in the fuiet enjoyment of the premises: on the part of the tenment, (1) to pay rent, (2) to commit no waste, (3) to keep the premises in rejair, and (t) to render up possession at the end of the term. The unly one nf these which requires furt her notice in this place is the landlond's implied covenant. In every leate under seal, there is an implied "eovenant for quiet enjowment." This does not mean that the landlord guarantees his tenant arainst all wrongtul disturbance of his possession, but only against all acts of the landlord himself, or those elaming under him (as his heir or grantee. or of any person asserting a baramount title. A disturbance of the tenant's posiession by any one of these persons is an "eviction," and entitles the tenant to consider the tenaney at an enf. An evietion may cither be partial or total. The former does not necessarily diseharre the tenant absolutely. He may still ise liable to perform in part the obligations of the lease. Thus if a lamulurd should lease two houses for a gross rent, and the tenant shomld be evicted from one of them by a person having a better title, rent wonld still be due for that protion of the premises actually enjoyed by the tenant. This rule does not apply to a partial eviction by the wrongful act of the landord. In this case the entire rent is suspended while the eviction continnes, as he is guilty of a breach of his portion of the contract. The doetrine of "constructive eviction" should be referred to. This is a modern principle, allowing the temant, in ease the landlord renders the ocenpation of the premises practically valueless be his own wrongful act, to abandon them, and make use of this theoretical eviction as a defense to the payment of the rent. This ground can not be taken unless the tenant vacates the premises. The mere deterioration of the premises in value is no eviction. Acordingly, if one hires a house and lot, and the buiding is aecibentally destroyed by fire, the temant can not, by the rules of the common law, leave the promises and cease to pay rent. The lamd still remains, and ly legal theory the rent is indivisible and can not be apportioned. There may be a clause inserted in the lease that on the buildings becoming untenamtable the tenant may abandon the premises and be relieved from liability. The same result is attained in some of the states by statute molifying the eommon law. The rule itself is not to be extemded to the case where the subject-mattor of the lease has wholly eravel to exist. This is not properly a ease of eviction, but rather of a want of material for the contract of the parties to operate upm.

The tenant's olligation to pay rent may he enforcel by "distress." The right to distrain for rent in arrear is a neeessary incident of the relation of leson and leswe. Whatever movable thing are upon the demisel promises. whether belonging to the leseer or not. are, with a few trifling exceptions. liable to listress. ln New York and mans other states, however, this time-honored methom of enfincing the landlords claim for rent has heen abolidhed he statute.

It is not by virtur of any covenant. expressel or implient. but as a necesary consequence of the relation of lamblom and tenant. that each party is estupped from donying the interest or title of the sther. As will realily ${ }^{\circ}$ he wen, there could be no such thing as a tenure or temancy if this dow-
 validity of his lease and prevent the tenant from dnivime the lessor's right to make the lease. Pratically the ruke amounts to this, that solong as a tenant rmains in malis. turbed passession he can not set up a> a defense to an atetion for rent by his landord that the latter has no tithe. (on similar principles, all encroaehments made by the tenant on
the land of others anure to the burdit of the lambard an lextwenn him and the tonant. In other words, the lather is not furmitted to deny that he was anding for has landmet,

 with an evietion by shll a fremm, he may yind the fumero-

 statert hat the tomat, white he an mot aleny his lamblomes wicinal titlo. may show that it has expinel in has been subverted. Thus it the lewar has fallen in deht, and his wate is sold on an exeqution, the tenant may purelase it and himself lecome owner. See Estoryel.

A covenan beine merely a romatare onlateral to the man transaction of crating an estatp in lando, its heand will ordinarily have no effed on the tenancy. Int will sinply give the injured party an action at law for the damage notained by him. Nevertheless, a covenant may, by reanom of its nub-ject-matter on the fom in which it is tat, have the fore of a condition subsequent. and the effect of a brach of combition is the forfeiture of the estate. "llais is true of all of the implied covenants, so callerl, and the expmess stipulations of a lease are nsmally so exprened as to give them the effect either of conditions on of covenats, as the injured party may elect. It is, howerer, mot quite acenrate tos deachilie the result of a breacla of combition by a tenant as a fortpiture, as its real effect is only to give the lanllorel the right to enter and terminate the tenancy if he chonses to do so. The temaney continues as befre bintil such whtre and the landlom may waive the breach and thas deprive himelf of the right to enter. 'The doctrine of waiver is radily applied, and the comets infer that a forfoture is waved ly any act on the ladderds fart inomsintent with the forfiture of the estate: sheh, for example, ase acepance of rent with knowledge of the breach of condition.

The forerong acenunt of the nature of the relation of landlord and tenant is applicable generally to all of the forms of that relation. It remains only tu call attention to the lealing differences between the several fomms. It has already heen obsersed that the only forms of fembal temure which have survived from the earlicst period of the common law are estates for life and for years and thancie at will. T'o these, in order to make the morlem record emmplete, must be added tenancies from year to year, and at sufferance.

Life Estules.-The distinguishing characteristio of life estates is their momerainty; for, a< an early writer expessed it, "although nothing "an he more certain than death nothing is more uncertain than the hour of death." The estate may be for the life of the temme or for that of the lessor or any third persom. In the latter case it is deseribed as an estate pur autre die and the peran uph whose lif. the estate debmak is called cestai que rie. If the temant should die before the latur, thore will remain an unespired fraction of the estate (torontinue until the leath of the cestui que afor), which womlel at common law haw ben ofen to the first enmer to arize anl vecupy as "gemeral nceupant," or which would goto any one derisnated in the deen as "special necupant." An estate for life mot heing an cotate of inheritance, it would of murse not ge to the whant's beir. hystatute in Forgland and most of the V . S . this remant of an estate pur cutre cie is now dispuset of hy making it a part of the estate of the electased tenant, to descend with his perwonal property to his next of kin.

Of comrec, the termination of the life eatate puta an end to any interest or tenancy demendent upo it. Thus if a person having a life estate in land shond purport to lease it for twonty-nie yars. and should die within a few days afterwatl, the leave womld terminat" at the moment of his heath. (Nwing to this tact life temantsare frementy madnle to make adrantacens lases. To remeny thin defect is not uncommon for one who erates a life estate to fonfer nuna the life tenant a promer (see pawreal or anthority to crate a latasenmencine durins his tenanes, and continn-
 power is rement the fosult is that while the hfo thant lives the rent is payable to him: attor his death. to the mest owner (or so-called revernomer). The omdimary life estate,

 whirh aries withme intervention of the partacondy byon eration of latw. The mont impurtant of here are the criates of dourer and putesy. She E-tatis and bowar.
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 S. T. Armetrong.

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 wablay fornt- he was intunded for the army ; received a aroful varly traning from pivate tutors and at Rugby
 wav ravieatal th the summer of bitif for a brach of dis-


 ("hhir) of bomidn rable lemgh, which in 1802 he pmblished in a Latin trambation (foberus). Lamdor visited Paris in
 immons. sum in improving them, in buying others in Monmonthatrev, and in boldine a palatial mansion; and in Fons, in a monnent of irritation, sald all his lands, ordered his matnilionth ham t., be torn down, and prepared to live athond. In dins he raised a buly of troops at his own ex[nme, juinal the paninh general Blake in defenting the Pranala atramet the Fremela invasion, and contributed a larer sum to the spans miliary trasury, recoiving the thank of the supreme junta and a commission as colonel. Lambur mariol in 1s11: resigned his commission on the

 If Hu Whation, and afterwinl hought the celebrated villa
 "Treftely: in 1we Myllite Iheroicm, in latin (published at

 wnik. Imnghary r'onrevations of Liferary Men and Sialesmen. of which the somen serice apharel in 180? A pas--Wmat" parny of comemtionaliom amb of tyramy, whet her

 at rugele with tha Turls to diamat tirarms and employ only the wraturn of their da-ical forefathers. After thirty


 temmen and lontaluyne, (1-3), and the dramas Andrea of Ilumpry inm (imammi of Xiphes, all written in ltaly; The" Hillmus (1sh), Iopery, brifish and Foreign (1851), The Lave Panit of an oll There (15:3), Antory and Oclawius (1-iti) and lury ilielis Fughted (1-is), besides some minor




 mintahable extelenue of a high urder of genius, which is best






 -atec, 2 and for ham mangraph /hes paralysies dans les mala-
dies aigurs, in the concours of 1880 , he wat apmointed associate professor in the laris Faculty of Medicine amd hysician to the hospitals. In lest he was apponted ghysician to the Tenon Ilospital. and in triop physician to the diennec Hospital. In 1843 he becmme full protesser in the facmity. He has been one of the chief editors of the Reane de medecine since fsst, and is the anthor of many valuable monographs on nervous disorders.
$\therefore$ T. Armerbons.
Land-rail : Sec Curx-crake.
Landseape: a tract or streteh of emontry aseen at one time from one point, and so called with reforence to its appearance to the eye, as in Milton's lines-

## Straight mine eye hath caught new pluasures

Whilst the landscape round it measures.
Also visible inanimate nature in general. what one sees ont of doors, and "specially in the cometry-hills amb groves and streans, with the sky; and the study or examintition of such aspects of nature, as in Ruskin's phrase "We will examine, in detail, not the landscare of literature. Int that of painting." Also a representation in art of surh amects of nature as "a fine lanswape"-that in to say, a fine painting or drawing of a landscape.

Landscepe in fine art has this peculiarity, that in most epochs and among most people known to us it has heen sulfordinate to figure-subjects, and yet has bern a principal subsject moler very different circumetances. Thus in Chima a splendid school of landseaperatinting existed in the twelth century A. b. and its inthence has been felt ever since in China, and also in Japm, so that there has been an almost continuous series of artists who have made landsape their ehief study. In Furope the great development of lamscape art did not take place until the seventeenth century, and the Dutehmen Ruyshad, Hobberna, and their fellows. logether with the Lorrainer Claude Gelés, were the begimpers of a system of painting which has heen steadily kept in furce ever since. These are the greatost instances of large monements in art especially directed toward lamscape as a principal subject. The sculptured slatso of the Assrian palaces show a decided feeling for lantscape beaty in their backgrounds. and in the later freek haverelief's an extrandinary pinctorial eflect is whatined by the free use of trecform, distant peepe of hill, and hattlemented wall and the like, behind the principal figures. In like mamer in the well-known Ghiberti gates of the Florence baptisterythose of the east doorway, modeled about 1425-lamdenpe is brought into the sculptured composition with remarkable effectiveness, for, howerer one may hisute the artistie propriety of forcing scolpture to a task not natural and casy for it, it is certain that the composition of these ten pancli, each containing figures in vigorous action. buildinge, trees, cragey rocks, and distant monntains-all in bronze relietis a very noticeable 1 henomenon in decorative and expressional art. To le compared with these are the corimus carings in wood of the Chinese and the Japanese, where the incidents of pilgrimage to a monntain-shrine are worked out in minute detail. their little figures scaling the steep pathe, their hoats moned at the mumain"s foot, the trees growing among broken rocks, and the combined hmman and unconscious natural interest forming one and a very luwerful design. As a matter of course it is in painting and drawing that laniscape art is most often sum, both as pincipal subject and as inakgrand and setting for scenes of


Landscape-gardening, or Landscape Architecture: the art of making sucha changes in the character of the seenery of a given field, and of so bringing it under contemplation from innumerable points. that the pasure of the He holder is increasen. To this end artificial ubjects. such as houses, monuments, bridges, and roads, are to be su forioned and disposed in commection with and in relation to natural ohjects-as, for example, mases of foliage, hilla. dales, rocks, and waters-that the mind will he drawn from materialistic toward fuetic momeds. Lampeape las effects on men which vary in degree amd in kind ancorting to the character of that which is contemplated and the conditions under which it is contemplated. The semery of a given field may be enjoyed either from fixed points surth as a landseape painter would select for an defective picture or from the phints of view of one moving here and there within the field in question.

The term landseape-gardening was introdueet late in the eighteenth century to denote the application of gardening operations to the purpose which has thus been explained.





 cordant character. Comine th br ansoriaten with such neperations. at confusion of ideas resulten that is wot inmmom. The term landsempe arehitecturn as a cubstituto for laniscapegardening is growing in faver, the woml arehitemture bring taken in that mone in wheh it wav nad hy Miltun When referring to the Amighty the thenitect of the word.
There ate two bramelne of hor gont ure which in ordinary Iractice are often confommen with landmanc-matening. Gne of them is the cultivation of planto with -pmial rexaril to interest in their distindive individual qualitios. The wher is the chltivation of phats with a view to the phanetime of ellicets on the prineiples commmaly stumpodin the arrangement of precions stones chamel. and grald in an elaburate phe of of jewelry or of flawers whan suted by culors and atrangen for the decoration of a beatedress ai din-ner-table, or a terrace.

Thu adoption of a lamsmpe prane dne not require that on a diven phece of gramel to be halt with there hall he no garden, using that worl in its ancint amb mot whelly lost anse of a treasmry of chmete phats. It only requipes that surd a a tres-ury shall le so sit mated and so phamed with reference to its surronndios that it will not he it discorlant feature in the general sethery of the netichborhond. It may be whersed that the beat writers of the time when the term landseape-garlening was coming intor rogue sometimer une the word swomery as has here been used-interehangeably with the word handsape.

Origin and Dertopment of the Art. - In the minels of mar
 tive of hadm dengers. henet wan unlavorable to a trampil state of miml, and this mantal attitude toward most forms of natural sconery was trammitted to their more civilizen descemlanto an a slowly howning mberitance. Even toward the end of the Midhle Aess, as linskin onserves, mankiml still lookel with aversion unn all secmery that wan intricate and obsenve. They especially watom everything comber numer view fom their dwellings to anpear charly detinet. Paratise was pintored in tho churchen as a plafin divind into squares by strainht walks and canals burlered with ruws of trees, lach tree so trimmod and trainal that its individual mase of foliagn would bave a di-tinct mutine. no bart of it bemting or intermingling with tha foliage of an arlowing tree. This hatit of mind. wherever it prevalod, established certain principles of devisu for watdening. The ancint furmal ot ble of gardming matinuel to the practicel in It aly during the perion of the lienaimance and was maintained in other parts of Eunnm. Tharateriste examples of eromms laid wat in peometri- style, it it is sometimes callech are yet to be found at liome. Where the great garelens of the mblility ware arrampel hy the armitect of the villas to whith the groumds were attachel. Grume clijped hedges, partorres. frmintains, grottoes, stairenee terraces-all bore "a direct relatinn to the house." Smother exmmple of this style is that at Fontainehbedu. France. Where a catren of several acres has its partertom arrased in rectangular form surmmaliag a central tavin of water.
With progrese in civilization exepptime th the general sentiment in regard to natural sechery begin to be mote or less aprarent in literature. It lengith Miltun is fomm imasining the Gaven of bicn to have bern chaminge not hatamse of its orterly, artificial charadter, hat hecamse of its natural lambeape. The lite rature of the early parts of that cighteenth century shows that a ketel dijuyment of nat ural senery had come to be not uncommon with the more cultisated men of the time, and that andivesition was growing to speak slishtingly of the faraty of gamens when com-
 At length under adviee of one Willian kont, whon hat tumel from a study of the pictured land-a tars in Italy, with their vitas often ramintimalty trated, an Enerinh nobleman had the wallo of hiv grarden razed, its
 of fartially wonded pastoral suenery laid opw to sew from his windows. the comporition heinis improyd la planting here and felling there. 'I'he reeult wan so himfly praised that it prowe to be the arting of a fathinn and his fasho ion rapialy speal. hont was not a sarlemer in the oll and then still usual sense of the wherl, having previously























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 with carefal thdy, he a judicom- lacamen of the materi-













 ardue from thit trac. and all athat it made lamather with

























 -ann time allow the wrater expanco of matoken lawn--urfar. Suar her satway. and asain near tha comer farthan from it. there mas bee a shatl the we a claster of small
 Whinh. Hayiner into that of the leftier linden on the right. Wht in imi - bus forthe sittine at the bay-window of the
 Povaling ather the miduthe.
-unnow, on tho wher hamb, that it is an aged beeh that han han fomm the the pace. Inally now in its middle age as ther limben in its yuth-storm-hant, and amosided, its trmak
 ront. If a dracy dom-sard had lumb hesited, this interestins ub. wond hase hem ont away though it were the last 1 tw, whin an milu. Aterelting it, mothing wonld be more


 in front of tha lana there shath be sonte place of repose for the w... atul that m, when in the little properly shonld

 affer it hat paroul it and ludure the honse tet there be a जwale (ak(ntle wat wway) if well-kept turf. Now, to earry Hhis tith burt right uy isur the expmed roots of the beech wonhl the a grat mistake; 10 let it come near, but cut a
 in repuired is a wery nee management. under which the turf in wine trom the liwer and presumably more humid gromad Shat bexme Lradually thinmor amd looser, and at lengt he mixed with mow, and thally pateded with plants that on the limden's lawn woudd be: aln. Thuts of clover, even phantain and morel. may apmar. The surface of the ground mat contimut ring. liut with a broken swell toward the trex. and. in defornace fo it. bant form, hold rising for a - fance in the wher side: but nowhere should its superior rande ly fully cowted.
sup"se that the owner of this house is to come to it three time nat of form from the side. "pmite that in which the Bred stams; hir path then shatd strike in well over on

 thear the tow (the chiddrens path), while the main stem bunds shart away toward a hrad perch facing the road at the corner matest the gate. 'There may he nothing in front
 a wall in hafage Perhap it mast have hat character for a fow barv lill it has herome thick and strong enough at hottom. It should always be moderately trim on the roadside, hat its hashastholit mon be all of one surt, and in gom time they will hamer imenes in rarnest, with hase and feathery thre sometime 10 ferot hieth. Yet to enme looking from the
 wat grantlo of brake amd hind-ween, dur-rose, and golden-



 Xiat the salle the hedge may wall he a little overrun and the gatelen - worhmir ind linst in swot chematis; may, as
 whe. led there tur atrons hit af latiace ower it, and on the allace sidn plat a homegnekhe to re-enforce the clematis.
 f"rom, thata may he conkombs, marigohls, pinks and phanes: hat anol wing phats tiod to the stake and prig-

 of the property to pht out of sicht the prim, conventiomally
 or il ath wererem (ensifar) will hetit the phace, a short. Ahw-houlal monntain-pine, with two or three low savins that a phomate juaine the the fet. Fimaly, let the romb--ide be managral at bafore 'Then if the gate be left open In math will helon :won if an comes in: yet from the
 will the nothine nular sinw hat is raw or rade or valgar; wh the comtary, there will lur a mon of moth relinement as w.ll atiof muth beatr.

The T'rentume of Later ot Meas- Where more extended arem an dealt with, as in parks or ou large estates, oftendo-
fects in the lamdscape are to be obsenred by sereening plantations. Tuform these, in sone cases chonce is mate of bushes by which, when fully grown, the objectionable detail will be hidden, but ofler consistant and harmonions elpments of landseape, Jying beyoml. Jeft unonsemed. Suppuse that, at another puint, high-growing trees are planted lrecanse bushes or low-xprealing tre's would not have sublicient elevation to fully aceomplinh is smilar object. In the choice of these high-growingtrees such are taken is will. lhoourh the darktr tint and strmone texture of their folisers. canse other foliage bryond to appear relatively lighter and its detail less distinet, thas mationg it apparently more distant than it actually is. Thore are many mothods for making landseape more etfective, the general nature of which has heen thas sugrested.
In the possibility, not of making a perfect cosy of any charming nataral hamscape, or of any farts or elnments of it, but of leading to the production, where it fous not exist under required comditions and restrictions, of some degree of the poetic beanty of all natmal hamsuapus, will be fouml not only the speciad fanction and the justifientim of the term landseape-gardening, bat also the dirst object of study for the landscaje-Earmener, and the stamdare by which alone his work is to be fairly judined.

Nature acts both happily and mhappily in frodncing her landscape effeets, and a landsompe-girimer must take measures to secure the happy antion. Ile neva bat wait for the slow and uncertain process ly which in nature a certain position would be adapted for a certain tree. He may make the soil frotile at once. He neen] not take the chance that a certain thick growth of saluings will be so thinned by the operation of what we called natural causes that a few ol them may yot have a chance to heenme vigorons, long-lived trees. Knowing that a very few of these will be more valuable in the situation, with the ardoining turf holding meen umber their canoly, than the thamsands that for years may otherwise occupy it, sturscling with one another and barring out the light which is the life of all beneath them. he may make sure of what is hest hy using ax and bill-hook. The nlimate result is not less nat ural or beautiful when he has done so than it wond hate heen if at the same time the same trees had been eaten ont by worms or taken atyay by elisease.

Limitations of the Lantscape-guthener.-There are several considerations, nequect of which is apt to cause $t(x)$ much to be asked of hadscaje-gardening, and smmetimes perthas toomuch to be professed and attempted. 'The common comparison of the work of a landseape-gariener with that of a fandseapeprainter, for example easif becomes a very unjust one. The artist in lambeape-gatening can never live. Jike the landsape-painter, a clean canvas to work upon. Always there will be conditions of local topogrably, sull, and clinate by which his operations must be limited. Ile can not whenever it suits him int roluce the ocean or a sumw-catyed mountain into his background. Je can not illuminate his picture with constant sumshine nor soften it by a perpetual lndian summer. Commonly, be is alluwed only to modify the elements of scenery, or promaps to bring about unity and distinctness of expression and suggestion in a locality where elements of heautifn! landscaym alrealy aboumd but are partly obseured or seen in awkward, confusing, and contradicting associations. 'This is capecially likely to be the ease in molulating ame partially woodel lucalities, such as in the U.S. are oftenest chosen for rural homes. Again, the artist in landmeape-gardening can not delermine precistly the form and color of the details of his work, because each sjectes of plant will grow uy with features which can not be exactly forknown in its seed or in its sapling condition. I"hns he can see his designed and innamimary landscape only as one may see an existing and tancrinm janmeape with halfclosed eyes, its finer details not being wholly lost, yot nowhere berfectly definable. Still, again, it is to be rememhred that works in landseape-gartining lave, as a cemeral rule, to be seen from many jrints of view. The trees which form the baekgromad, still oftener those which form the middle distance, of one view must be in the foregromed of another. Thus the working out of one motive mast be limited by the necessities of the working ont of others on the same ground, and, to a greater or less degrem, with the same materials. Finally, combitions of hoalth and convenience in conmection with a dwelliner are incompatible with various forms of captivating landscape beaty. I house may he placed in a lovely situation, therefore. and the end of long and eostly labors of improvement abont it jrove
comparatively dull, formal, and mantoresting. What in lost is a part of the prioe of health amb emmenterne of dwalling.
 under the eomatitions grearerbed to him.



 an omdinary, molest home, for instaner, may desirably be
 retimment and setelusion, as if these hat nomt led cozily dawn tugether among the treses in "sadue from the outsile world. The grommes of a grast phblic buihlag will, on the other
 in phares of thrf and masses of foblage as ennworiance of ap prodeh will allow, and evory tree arranged in subopdination to, ambl surpurt of, the buidiam. The eromonds of a chareh and of an inn, uf a cottation and of an arsmal, of a bobryme place and ul a place of amusement, will thus difir, in (anth eqse comparondingly to their primary purpose. Kablaing this, it will be recogrized that the chance of the site. wif the elevation, aspert, chtrances, amblutlams of a binilding fur no purpose cam be julicionsly determined except in commeetion with a stady of the leading fatures of a jlan of its appromeles and gromols: aloe. That in the design of roads. walks, lakes, and brideres: in the methon of dealing with various matmat ciremmstances, as stambing wood, rocks, and Water ; in a deteminatim of what is mosiblue and dresimble
 opremet or shat not, the aroblande of mataria amb other avils -all these and many other duthon are morosarily int imately assoriated with those of gardening (or the coltivation of
 servations on the Them?! wnl Irwetice of Lambsenp-atarden-


 Fork, 1841). See Fine drts, Jlondrotirne, aml llortiCULTURE.

Frederick Law (Olmotizi.
Landseer, CuARLEs: painter: son of John aml brother of Sir Jolwin 11. Landseder ; h. in 1799 : stodied in the scloons of the linyal deadeny, amp exhibited in $1 \times 2 \times$ : was chamen
 1801. De jainted historical piocess. Il is I'lundering of Bresing /humsp. an incirlent of the civil war in England. is Well known. (ither jietures are Clerisse Marlowe in lorisom. The Hepartme of rhurles 11. in Disguise, The Mombs of Metrosp, and The Return of the Ihote to the Ark. D. July $22,1829$.
Landseer, sir Emwin Ifenry: painter: son of dohn Lantseer, line-rngraver: b. in london. Mar. T, 1so : excelled while a lnoy in the jamong of amimals: lecambe a student of the deademy in 1814 . Dandseer was the most popmar and abmired imimal-paninter of his time; his jictures have great vigor of tratment and jower of characterization. Some of the lest may be sean in the Gernon cobledtun (National Gallery) as Itignify and Impudence and Stumicle of himy Cherless Breed: others in the shereplanks collection at Somblanemineton, as The Old siletpherols C'tief Momener, A Jucla in りffice, and . 1 Midhlomed Breakitust. Enwin Lamdner was elected an insuciate uf the Ronvad deat-
 knighted by the (bueen. (On the dath of Sir Charles Eatit lake in 1wgig he was elceterl frexdent of the lioyal Neademy, but declined the honor. 1). Ont. 1, 18:3.
luviked by lideselda sterais.
Landseer, Jonn : linc-engraver : b, in Lincoln, England, in 1 万6I; wats the son of a jeweler : rewerath his eirliest instruction from William IBrne. Jlis first grobutions wree vignottes for Mactin"s Bible aml Bowyrrs. Mistory of E'my-

 engraving at the Rogal lnatitutr, which were published; in $180 \%$ Wat chosen associate enoraver by the drablemy; in 1814 hegan a stries of line-engravings illmatrating the antiguities of Dicea (Britinh India), twonty plates; in 1 sot a catalogue, descriptive, "xplanatory, and eritical, of the earliest pietures in the National fiallery is late as dent he exhibited at the Royal Acaltay views of lomidiad fom-


Landsear, Thonss: line-nerater: 1 , in Lomalom in 1795 ; elder brother of sir Edwin Ilenry, an "Horaver of ahility


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 Cmbana Vhantore in thas Matan wat，and was mate a




又．1＇，1月，1：



 In the Frotelh latitut＂：＂n the Wath of his proat－uncle，







 The Rentury forstirs（1sal），the litat thene in the Story of


lanframe：$h$, at l＇avia，laly，alout 1005；was for many


 Combandy，wher hin mbull was visted by a great many

 Parpmarias，blan he triod in vain to convince of his forme．In loni：be torane alhat of st．Stephen，and in

 William in the mather of an illicit marriage，which was aftoward lawizen hy leome throng the holp of lanfrane himalf．In the idminithation of his Chorelh Lanfranc was ： 1 unt hewntal and prodent hishop．sheceeding even in


 ＂He＂，which wan werent，with the＇ongurer in the sup－ Went of jurtion and the porection of the natives，though，for the root，he athy membed Willian in the lime of action Which ratalted ia the sabordination of lork to Conterbury， and in the ermbal but cambatal ramonal from power of all Phelin proman and abluts，and their replacement by
 L．anfane was man al grat palition purlence，and fully （4n－wins that only the streng hame of the congurer could fromere fan in the whit：hene he wan carefal in his

 of at bry hallan charactor，ant furtherig with prodence the derene of the ohter abamet simeny and the married
 lation on lat an to athas their wive to thone cleties who had

 andatly marpal．Latran wis alwas on the best terms

 thermand of Willian in cerdexialjeal matters，lanfrane mplian to dimammer whe thana：＂I＇ray（iok that he may


 hint from entain att－mafabrable to the loman see，lat








 The－thets of lie are the shatere for his lifer，with the Siotexmatmed Mistory of moterme litalis．see Hook＇s



1881); and Chevalier, Ripertoire des Soureps Ihistoriques du Moyen ilge, $\therefore$ v. Lanfrane. Ions I. Keane.
Lanfranco, dañ-fran'kō, Goraxm: jainter: h, in Parma in 1581. Ite stmbed with igrostimo Comacei, and, after his death, with Annibale (aracei, whe int rusted him with the cartoons for the Farnese Palace in Rome. He also wethed tho greater part of the Luggie of the Vatican. After the death of Annibale carace hereturned to Parma and Parenza, where hedeveloped an indivitual stym of panting. lis must fanmens oil-paintings are St. Andrat drellino at lame. the Head Christ at Bologna, and St. Roch and St. Conrod at l'iacoma, He painted the cmpha of st. Andrea della Vatle at home. destined for his rival Domenichim, and finthed the latter"s work in the treasury of st, Gmaro at Naples. He alm painted the eupula of the Church of Jesus at home. The grandeur of his architectural insentions, and the effective. rapid style of painting he alopted makes Lanfranco one of the most successinl fresco-panters of his timf. W. at lime, $164 \%$.
W. J. Stillais.

Lanfrey, lăni frä, Pierre: French historian; hat Chambéry, Savey, then a part of the kinglom of Siardina, ote do. 1828. His father was a Frenchman what had been a military offict under the empire. P'ierre enteral the Jesuit college at Chambery, but left on aceount of having written a panphlet against his revermd instructors, and comphted his studies at the College Bourbon in Paris, where he qualified for the lar, but afterward tumed his attantion to philosophical and historical stadies. His first work, The Church and the Philosophers of the Eighteenth Century ( $180 \overline{5}$ ), made a considerable sensation, which was lecpeneid by An Essay on the Frenoh Rerolution (18.js): The I'olitimal History of the Pupes (1860); Political Stulies and Portraits (1863); ant The Restoration of Foland (156:3). In 186711. Lanfrey began the publication of his most important work, a History of Nepoleon $1 .$, of which the fifth vilume (to the organization of the army for the invasion of Kusia) appeared in 1874, the ablest and most complete arramment of the first empire at the har of history that has appeared. Lanfrey served in the mobites of savoy during the FrancoGerman war, was elected to the Natimal Assembly in Felo, 1871, and in October of that year was appointer by Thiers minister to Switzerland, resigning in 1sid ; elected life senator in 18i5. D. at Pan, Nov. 16, 18 i\%.

Lang, Andrew: author; b, at Selkitk, Sentland, Mar. 31, 1844. He was edncated at the miversities of st. Andrews and Oxford, and was chosen fellow of Merton ( $\circ$, lege in 1868. He has published between twenty anl thirty volumes in verse and prose, and excels especially in translation, in vers de sociéte, and in clever half-lmmoruns essays. Among his books are Bullats and Lyrics of Old Franice (1872); the Ody.ssey (trans. with Prof. Butcher, 18i9); Butlades in Bhee China (18sin) : Theocritus, Bion, and Mosehus (trans. 1880); the llied (trans, with Leaf and llyers, 188:3); Custom and Myth (1884); Rhymes à If Mode (1584); Letters to Dead Authors (18s6, new ed. 18t:3) ; Books and Bookmen (1886, new ed. 185i): Myth, Ritnal. and Religion (B) vols., 1887) ; (Irass of Parmessus (1854); Letters on Litprature (1889); Life and Lellers and Hiuries of Sir Stufford Northeote (2 vols., 1890); Essays in Litlle (1891); St". An $n$ dreus (1893).
H. A. Befrs.

Lang, Carl, Ph. D.: director of the Bavarian moteorological service; 1. at Regensburs, Pavaria, Oct. 10. 1849: was educated at the Regenshmrg gymnasium and in the Technical High Sehonl and University of Munich. He was assistant in Physics from 1870 to 18 is, then aldunet to the Royal Meteorologieal Central Station until 15s.5, when he became director of it, and has continued in this position to the present. In combination with Prof. won bezold and Dr. Erk he has compited and priblished the fourtem annual quarto volnmes of the Bavarian meteorologital service. He has, besides, published very many papers on thunderstorms, chimatology, and practical metporohory, in meteorological and other jumans. 1). Sejut., 1se:3.

Mark Mr. Harmiveton.
Lang. Johy Marshall, D. D.: minister of the Church of
 uated with honors from the ['niversity of tilasmow 1sidt: minister of the East parish, therdeen, 1456; of the parial of Fyvie, Aberdenthire. 18is; of Amerston churdh, Glitsgow, 1865: of Morningside parish, Edinhurgh, 1wis: of the Barony parich, Glasgow, $18 \pi 3$. In 18 de he represment the Chureh of Scothan hefore the General Assemtly of the

Prestheterian (hurch in the (. So of Ammirat In 1880), 1sst, and iske he participated prominently in the comacils of the alliance of the leformed ('hurches, and is chanrman of the western section of the allianes. In 1 son he Was madn chairman of the evmmisom of the Church of siontand on the prligions combition of tha jeonle, and in 1s!3 was callod to the modemotors chair. Ite has publishem,

 of our Lard (1s81): Lift: is it Worth Living ( $1 \times-3$ ): Ancient heligions of tratrel Amprime (1482. St Giles's 1 A"C
 timeon und the Judyrs (ism, Nen of the [ible series); The Churde and the leople (18:!3).

Willis J. Beecafir.
Langdale, Sir Marmanke: adher: b. in Yorkshire, Fogland, about 150s: was sheriff of that eonenty in 164?: cmbracel the royilist camse amb hocame one of the most valian generals of 'harke I. Jefeating the sootch at Corhovede and raising the sege of lontefract ('ast) (164.0); commanded at the battle of Nasely. Jnne 14, 1645, which was lust through the improdnce of lorince Rupert ; joined Montrose: was dofeated: esaled to the Inte of Man; went thence to the Continent ; joined the foot ch royalist army in 164s; towk Berwick by surpise (Amil); was tefeatel by (romwell at Preston (Aug. 1i): captured and imprisoned in Nuttingham Castle: escaped to Fhanlers; was made baron ly Charles II. ; was lortlientonant of lorkshire on the Restriration in 1660. I) at Hohme in Yorkhire, Aug. $5,1661$. Clarendon in his Mistory of the Rehnllion gives Langdale a high reputation for courage and skill.

Langhon. Jons, Ih. W. : (Governor of New Hamphire; lo at P'ortsmonth, X. II., Jume 易, 1it1; became a successful merchant of that town. In liit he assisted in securing for ther colonies the ordnance storen in the font near Portsmonth. In 17i.) he was sent to the continental Congress. In 10 oid he beame nary arent. Sleaker of the Now llamphire Assembly, and judge of the common pleas. He grave the money with which fen. Stark"s famons brigath was equiped, anil in preon commanhal a company at Bonningtom, Suratoga, and elsewhere. In 1ath he was prexdent of the New Lampshire emvention and continental agent. In 1283 he was sent to Congress, and was attorward morn than once speaker in the New Hammire lexidature. He was president of New hamphire in 1ix. and in 1987 was in the convention which drafterl the Fedcral Constitution. In 1880 he was Governor, and again in 1805-09 and 1810-12. He was a U.S. Senator 18: 1 -1, ind athd dectined the secretaryshi] of the Nary and the vieq-presidency of the L.s. I. at l'urtsmonth. Sept. 18.1819.

 Zurich and Bom Lhiversities: was symnaniom teacher in
 in Zarich University in 1nie. U. in Starhare in 18i. His prinejpal works are (resehichte dor Ifutromitismus (as vols.
 Soychologie (1865): and J. St. Wills Ansechton über die soziale Ėragen (14i.).
J. M. B.

Lange, lange, Jhans Peter: themgian; b, at sumborn, near Elherfoh, in Rhenish Promia, drr. 10, 1s02, in humble circmostances: acenired his fint eflucation by his own phergy: attended for a year and a half the symmanion
 in several places ami was apuinted Profesor of Theolngy at Karich in 184. and in 1sit at bomm. Ilis Lebon Jesil
 into Englinh by sublia Tarlor and I. Fs. Ryman (if whls.




 and bartly writtan hy him, an Enerlioh erlition hat bed prepared. Lathge's Commentory, by Philip schatt, in collathra-

 E. C. Bissill on the Apucryphet 18s(1). It wits onn of the most sucecoful of commentaris. anmedaly fom a publisher's standpont, buh in its derman and lingian form. I). at Bomin, dutys, 148.

Lange. Thoms: novelit: bo in Comphaten, Demmark,









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 and limetmon of the work of braderon．Besidus his dra－
 －limhtrahn＂．＂have．with the phas．are printed in the col－ hatod mlition of his worts．（ridichton（llaarlem，1760）．









 and the Haturerians，in whioh the hatter were victorions， but watered an hovily hat a fi－w days after they were



 at the samimes there amb ahnathen to the lat in 1850.


























and St．Genrge in 1881．Ihe pdited Mflanges Religipur

 1855）：and Trod Administratif，ou Wumuel des I＇truisses et Fubriques（1563）．

Nell \anlustaly．
Langevin，lianzh youn，Jean Frangon Piermi La Force： Roman＇atholie bishop：brother of Sir Hector Louis Lan－
 nary of Quebee；was ordained a prist in lett，and come－ crated hishop of st．－fermain de Kimouski in 1N6T．and was alsu titular Archbishon of Lemonmlis．He was Pro－ fessor of Lligher Mathematios in the seminary of quente． 1840－49；principal of Latval Normal Schend 1statia；
 Sours the la Charite in 188．2，and hes somes des petitos écoles in 1sit．In 1886 Bixh川 Langevin was constitutal a Romin connt，and an assistant to the apostoli．throne． D．Jan．26，18y？．Among his works are 7raite de＇aloul
 （1860）；Cours de peduyogie（186．）．Nem Machosill．

Langham，Simon ：cardinal：b．at Langham，Rutlamb－ shire，England，about 1310；hecame a monk in Westnin－ ster in 183.5 ，prior and abbot in the same year， 1344 ，high treasurer of Fnglimd 1360，Bishop of Ely 1362，chanceltor 1363，and Arehbishop of Caterbury by papal provision July 24，1366．His most notel action was the rimoval of Wiclif from the headship of Canterbury Hall，Uxford，in which he was supported by Pope U＇rban V．，who signalized his approval by making Langham a cardimal－presbyter （1368），while the king，Elward MI．，was favoralle to the Reformer．The new cardinal was forceal to resigh his arch－ bishopric（Nov．27，1398）and retired to Avignon，where he became a trusted counselor of Jope Grequry $X 1$. ：mad cardinal－bishop（139：3）and died July 22,1306 ．After the aecession of Riehard 1I．his remains were removed with great pomp to Westminster Abbey in 1329.
Langland，Langelande，or Longland，William ：anthor： b．probably at Cleotury Mortimer，shrophire，Empland． about 1332；was ehucated at 0xfond becane a fellow of Oriel College，and a tonsured clerk at Malvern．Ilis Jision of Piers Ploumen，in alliterative verse，written abont $1: 36$ ， was a religions and moral allegory，containing much satire ajon ecclesiastical corruption and the social abmes of the timc．It was originally in eight divisions，or＂passus，＂to which was added a continuation in three parts，Vite low Hel，Do Bet und Do Best．About 137 T the whole was greatly enlarged by the author．The best edition is that of W．W．Skeat（funr parts with glossary 1867－34：another edition in 2 vols．，1486）．Langland died about 1404.

Revised by 11．A．Beers．
Langlès，labangles＇，Locus Matmel＇：Urientalist；b．at Perenne，Hante－haire，France，Ang． 23,1 163；；studied ori－ ental languages at Paris，and at tracted considerable attention in 1887 by his translation into lirench from the Persian of Tamerlane＇s Insitules．In 1789－90 he edited Amyot＇s Man－ chu－French dictionary，and in 1 ans he indnced the French republican govermment to establish a special sthool of thi－ ental languages of which he himself became the first inl－ ministrator and Professor of Persian．Throngh this schom， and throurh the Geographieal society of Paris，of whith he also was the fonder，he exercised a great and bencticial influence．He was also the author of numerous works ri－ lating to Oriental languages and liturature．If in Paris， Jan． $38,1824$.

Benjo Ide Whfeler．
Laugley，James Wilberforce，M．A．．Q．C．：journalist： b．in Paradise，Amapolis Countr，Nowa Scotia，Jin．4，181！； graduated at Acadia College 1871；was admitted th the bar 1850：and in 1880 was appinted a commisumer for revising and consolidating the statutes of Nova sontia．The was elected to the Legislature in 1 se：；became member of the Government in 1884；Attorney－Gieneral 1584；has takm an active part in creating the pilicy of umestricted reci－ proeity between Canada and the U．S．He editell The Acu－
 has contributed extensively to British amd U．心．masazines． Nebl Madosald．
Langley，Joms Newport，M．A．，F．R．s．：physinlogiat； b．at Xewbury，Berkshire England，Xin，10，1sis；was idu－ cated at Wexter Grammar School and at Trinity Conleqe， Cambridge，of which he become a fellow in 187．．In 14.43 he was eleeted a fellow of the Royal Society ：in 1884 was appointed a leeturer in Natural Seiences in Trinity College
and a lecturer on Histolury in the mineraty ；in 1 ente was awarded one of the mevtat of the lional Sictioty．Ilio puthe





 Sore ant Journ．Physinh．1sat）．He alow has writton many parmes in omjurtion with other sunctalist：ammer these are（iustric tilunds（with Dr．sewall，ofoumal of Itaysiol－ ogy，1x： 1 ）：Prosinoyrn and Irpain（with Ir．Edkins，aner－ wal of Dhysiotogh．1NXi ；papre on the tution of paisurns
 Ifogrnerution（with Mr．（irïnbum，Jonemul of Jhysiolugy． 1s（90）；Jhmments of the Mris（with In．Anderson，foumal of Ihysioloyy，18：12）．
 bury，Mar－．，Aur．29，1834．In 1＊65 he was aquintent assistant profecor in the L．S．Nabal Aealemy，and in 1860 hexam alirector of the whervatory at Alterheny．He Revoled himelf princijatly to ubaryations on the sum，es－ pecially to the measurment of the hest of the sum and mown．We is the inventor of the bubnoter，one of the mont didiate instrments known for the mosurement of radiant heat．In 18si le organized an expelition to occopy the smmmit of Mt．Whitnor，Cal．in mater tustuly the sun＇s rass helure they rachent the lower strata of the atmoshere． In 1586 he was dertem at member of the National Actandemy of semences．Ite has recerved the erold medal of the lioval Astrommical sorioty of Lomdon amd the Ramford metal both from the lowal soeiety and from the Amaricen Acond－ emy of Arts ami sumere．In 1 sha he sumeded l＇rof． Baind as secetetury of the smithamian Institution．He has publishal sereral inventimations into the dynamics of the atmonthere and the ilight of birds，with wimed reference to the posibility of aerial locomotion．$\quad$ ．Neweomb．

 eled in 14．5－5：3 in＂ilicia and Amenia，whor he diecowed over cishty new ireek inserptions．and undertonk exatra－ tions at Tarsus，frim which he remosed many intereating antiguities to Paris．（See his Joynye en Coltore ef chas les Ifoutagnes du Titurus．）In 1Nitithe puthished he Mont
 repruluction of the genqraphical work of lotumy．In labs he began the pullication of a oflofions des IIistarions an－ ciens et modernes de l＇Arménif．Which was minniand wher he died，May 14，lef9．Levimed hy J．li．S．Srembett．

Langres langr：town ；in the deprament of llante－ Marne，France；situated on the left hank of the Marne．an a phatem at an elevation of $1,4 \mathrm{flof}$ fret．It is 144 milas E．S．E．of Paris hy rall（see map if Franere ref．t－11）．It is an old town．with a cathedral of the eleventh eentury，a colloge and a thendogionl seminary a larqu trade in grain and cottle，and a manulitcture of fine cutlery，Pop．（19：11） 10．719．
Latur－Son ：a eity of Tomquin； 100 miles N．E．of Hanoi． and wily 12 miles from the Chinese frontier：capital of a
 Its cocmpation in 1－5．5 by the frem followed the blooly battles of date－nanh and some－thomes．It is an ancient city． well fortifiel，a center for trale in chium，oil of anise，and eoarse wotten chaths．

N．IV． 11.

 slave，hut was emaneiphen when six rears old：was ma－ cated at dmerlin Collewe，where he grimuatel in 154！and from the theokerieal department of the same conlera in
 puremed hi profession for thistern yare th thing when he was called to a professurhip in the law hemement wf the
 the farulty，and in 1－is viempendent and anting proment of the university．He was alpmand in lail，hy the I＇resi－ dent，a manture of the bumd of hatith in the bistrict of

 Haiti；in 10sis was apheinted predidont of the Virginia Nor－ mal and Cobleriate Institute in l＇ateratorys．Whe has puth lished papers on varime subjecto．and at mame of addreses entitled Freedom and C＇itizenshin＇（W゙ithington，188）



















































 －







13．13．Valdintine．

 Lat，lingui，tomgue，language．






 mally the waf mor hy tha sulary）in this sense，specth is its rammen Eynnsm．Scond．We man a particular body


 hut and la ont－inder．It is if the birhost importance to

 mate ar lan commandy held．

 paratu－leanom in the than and mouth，supptied with matrol hy the hms．That hanch of linguisties which
 －mm！a－dandment on the whanary movements of the
 thane if ： hatmet from cither．A hrief considatation of its leading frimemon will he ath hat in needed hare．
Flow muntur of distimet artionhations eapable of being （romber hy the ureans of mathance is indefinitely great．

－1＇antur＂＂（tirs chaphor of Éurly English Pronuncia－ liwn：him many of that are sariations，hardly percepti－ HA to ：ant bat ckilled and whercant cars，of what is prac－ fionly the zame shoml：and me single langage uses for phrmer of rutch more than a mation of this number． The mont impurtant divi－ion of the system is into vowels
 in which the molifyiner artion of the mouth－organs on the intumatel entento of brath is least ：the consomants are the Whar memals．thone in which the wement of oral adion pre－
 sworl and entowant，the surewin of attermately opener and flow rembly，dejemets what we call the arficulate char－

 Fimt ！＂j＂int ly the comecmants．and so broken into arti－ rult，＂juint－＂l wing the mande lnoth dist inct and flexible to a dere that whald the athande in to other way．There下：© ferene of the moththergans with the stream of breath is
 malos \｛thes，whemen．Thure is and her in which the organs
 at the uritiox，ant is the compormons element in the somd friment：then arealled franives：they are conveniently

 1he（empan ing．Gumber very dist ine class is that of the













In Fandoh，and an the manits of wher languges，there





the mouth at or bate of the upper front teroth, risiog $t$ amd d. The last two pairs may vary in character aceurding to the place on the balate and the parts of the lomine used: and lifferent $t^{\prime} s$ and $k^{-1} s$ ane sometimes foumb sibe by side in
 responding bisial to wab mite closure ; bat the uthor comsonants also teme towame the same organs of promection: thos the fand $r$ amd $u$ ane more lathal; the the the s and $z$, and the $r$ and $l$ ary lingmal: and the ch. the shaml $z h$. and the $y$ are more palatal. Even the vowels show the same temanory : form the a-somme of for. whind is the purest alphathetic tone, least motitied by the month-meran-, $1 h_{14}$ tongue approaches the patate, toward the $k$-pmation, mare and more in the of of pen. the $e$ of pen. aml the $i$ of pite. giving thus a palatal series of vowels: and the lifs are more and more rounded and approachad in the of all, the $u$ of pole, and the te of rule, giving a babial series.

There is one more principle of relationship to be moted: that of somant to mon-sonant or surd (or vole $\begin{gathered}\text { dod to breathed) }\end{gathered}$ sounds. The 8 and $z$, for example, are uttered with the same arficulating pusitions of the mouth-organs, but the fommer with simple breath, the other with intonated breath or sound: the former a hiss, the latter a buzz; and the difference of $t$ and $d$ is the same, somm beginning in the former only immediately after the breach of mute contact, which is made with breath alone, but in the batter before the breach, by foroing air enough to support for a moment the sonant virmation of the vocal cords upinto the clasel cavity of the month. Thas the mates and friatives go usually in Pairs, of surd and somant; but in the wener jositions the mere breath is not sulliciently characteriznd to give an alphatotic constituent for each position, and we throw all the different prothets together as $h$.

The prineiples, then, which determine the system of the alphabet are: (1) the degree of apurateh of the wrans, between the absolute openness of $a\left(f\left(O^{*}\right)\right.$ and the absolute closure of $k, t, p ;(2)$ the particular ormans or parts of the mouth brought towarl or against one another ; and (i) the kind of material furnished to the month-organs hy the throat, whether breath or sound. Annexed is a sample alphabet thus arrabred, containing (with neglect of some minor distinctions) the simple soumds of the English language:


In this scheme $A_{P}$ represents the $a$-sound in pon, t the sound in all, and a the "neutral" vowel-sound in hut, hurt. See Phonetus.

The spoken alphabet of every lamouare may be reduced to a systematic form more or less resembling this. Alphabets are, however, of very different character as rematras both the number and the identity of the sounds composing them. Lanmuars netiter not only in their somnds, but in the combinations of somms allowed in forming syllathes, and in the combinations of syllables allowed in torming words. Some bave hambly more than a dozen articulations. all toh, while the Siankirit and Enorlish ear-h posams moar fifty: some allow only one convonant in a syllable, and that always before the rowel. while the English makis such intricate and dithicult combinations as strande, turolfths: some (as Chinese) anmit onty worls of one syllahle, while Ammican mbian languages sometimes count the syllables of a word by the seore. As they differ in these resperets, so alsu, and far more, in the combinations of sombls by wheh they represent any wiven conception; whence the diversity amd mutual unintelliqibility of human languares. "lhis diversity, which is very lifferent from what we might anteredently expect, considering the fumbamental nuity of the haman mind and its operations, is one of the problems which the science of language has to explain.

We have satd that articulate sombds are produced he tho voluntary action of their utterers. (If comrse this does not imply that the speaker understambs at all the medhanism which he sets in motion, or commands it oflerwise than as
he commands the mechanism of lowomotion or of gisture.
 that ars* fomme in any human alpabol, and a froat many






 is given by the practiced ardult surakera ambl the chijol, hergrmaner hy reproluciner andy imporforly what lue hears, eradually acopures the same facility ami anomatey as his fellows punses. Just so, every whll-embluwed chilil is cat
 one of an indufinite namber of tralles: and he attably
 sucla aplicathon he womd leam nom ; aml whe wonlal ex'fare no lameruare if he were mot tanioht it. There are, we may say. a thousand differant lamguares in the worll, and each of them has a different worl for hamd, or gheen, or rua: there is no reason why any homan beinir wes one of these thunsand worls instemb of another fur a wiven purpome exerpt that he hears it usal hr others, ame then himself learns to repronnce it hy imitation, und fo assuciate it with the same dlea which it remesonts in their use. There is no sneh relation between the artieulating apparatus and the apparatus of mental atetion, of pormeiving. atme combaring, and jutging, that anywhere in the world a homan being produces a series ul artionlate somuls hy an internal and matural impulse as representative ol a certain cone ep tion. The rebation of uttered signs for intas is firecisely What that of acted signs womblat the hamband amme are "apmble of making an infinty of combinations of motions. and, is the expretience of the deaf-mute slams us, a frimon is capable of asociatinge conceptions with these motions to sumb an extent as tor make them a full apparatus for the expression of thought. We see clatarly fonomirh that the tie between such signs and the movements of the mind is an external and artificial one: but it is not lass the calse with our wwn signs. That is to say, every uttorel worl js an arbitrary and eonventional sion-arbitrary, lnecanse any other conld have been made (and a great number of others are made) to answer the sama pmanse; eomsentional, because the selection of this one has jts sole gronud in the acoortant usage of a commonity. It was lamed by the dirent instruction or from the example of others who usel it alrealy ; it has no tie with its immer comtent or meaniner save that of a mental asmolation. We who has armpired am? learned to bee one set of signs may and amother and another. and use them also with randiness, even forgetting. if the shift be made early enough. his first acofuired ret, ur native lansuare," in their favor.
We sce, then, clearly, what the "gift of lamgnage" is to man. It is a general power of wxirtomiom. It consists in such gifts of mind and of body, amb in subh command over them, that any homan bejng can par-es himeelf of any of the systems of expression batalilishem and current in the Werlh, and make use of it, more or lass prefectly for commanication and for the ofreramon of his thomght. It plates all existing languares within his reacli, lut puts mone into his pussmanon: lie ean learn to spak anything, but ean seak nothing without leaming b but the jower to use inphes also, to a certain extent, the mowe to pommee. If there roudel the such a thing started as a yndednase commumity of laman heines, it womlal. hy the exorcime of its gift, make a beqinning of suphlying itolf a languare, Which womld heome increased and extented abll purferted until, after gemerations enongh had mate that eontributions to it, it would compare with some of those maw eurrent. Of what kimat the begimniner woulal he we shatl see lepter after consintering the main fotcts relating do the life ant wrowth of existing tongues.

Now are even now and everywher makers at well as

 langmare wonlal continue tho same from atore to atrat luit

 so that the form of a thonsably yeats ason, whith we call Anglo-siaxom, is as a wholly stmate tomerne for hatan
 Iligh Gorman chancedinto Mirhlla, aml this intu Nかw : and so on. 'This is simply the effect of the evellective mind of





















































































 and then the foril act an it, amd the lanly of mon that sit
 flaterl." act- a whale sheme of meatings. sumbingly of
 of the what hy a tracoable the of anotiotion. Thus a great

 of the h vioustapher to place in their right mat ual relations, but whind the whinary suatire woulal offen be pazaled to

 -xprownus lor intellothal amd mural conceptions and relations are whinmen the from toms wriginally indicative oif what is fhysial and sumblu"; thus riaht is "st raight," and momy in " wrums" or "twintal"; umderstand is" sland in the minh " of anylhine : imply is "foll in," apply is "fend to," reply is " heml hatk," comply is "bend nlong, wib" : develop is "unwra,"; arcuer is "ran against": apmermbly is "alin lwhl": and sum. ln the secoml plaee, words indiction of relatinh. form-words, conneetives, aux-
 matorial manning. by a aradual extaraion so wide that it


 "grow," "dsell," "-it," "-tamb:" annl the like. 'Jhe aux-




 informatises: conjumotions, from alverls and other parts al - リ-
lis buth the me mothons the matarial of a growing and cul-




 an I'remehos stmly of Wurds and Singlish I'tat and Present:


T'ha seond wemald livision of limpuatice change is that of




















selves, chiefly as a result of the wearing-out processes of phonetic tecaiy. As already noted, no motern language offers more abmunt exemplifieation of this than oar Donglish. Thus the seven original cases of our family have been reduced to two (in cerlain pronoms, three) the tive original tenses, to two; the arreement of the adjective with its nom, in two forms of declension, is entirely lust: the scheme of artificial or grammatical gender is ubliterated; the subjunctive moor is nearly gone. The same is true in lew legree of all the languages akin with ours, and of all athers whieh bave any grammatical structure at all. The law of abbreviation is inexorable in its wrking, and, along with what can well enmon bespared, takes away what is valuable.

The third division of change includes adtitions to the material of language. Of the addition of new meanges to old words, sullieient notice has already been taken: and it is evident that by this means the resources of expression of a language may be very much increased without any corresponding outside show, it is possible also to pile away the results of new knowledge in the old words: however mach we may come to know more than of ohd about the sum. heat, rising, and falling, and innumerable other subjects, it does not disturb our employment of the traditional names. These are just as real parts of the growth of hanguage, produced by the same forces and for the same purposes, as the more external additions. External additions are of two kinds-those made by borrowing from ahrod, and those made by the development of native material. Borrowing is a well-nigh miversal process of languge-making: there is hardy one unmixd tongue in the worll, unless here and there a dialect which never comes into contact with any other. Only those languages borrow on a larere seate of which the speakers have derived to a large extent their culture, knowledge, institutions, from ot her communities. The Persian in this way gets material of expression imefinitely from the Arabic; the Turkish. from the Persian amd Aranic; the modern diatects of India. from the Sunskit; the dapanese, from the Chinese. So also all the peoples who inherit Grcek and Roman civilization have taken ahmiantly from the Greek and Latin vocabularies. English has borrowed more than any other language that is not descended directly from the hatin: partly beeause the forcible fusion of a Germanic and a Romanic dialeet which was the result of the Norman conquest opened the door to such borrowing and made it easy; and partly becanse the native processes of composition and derivation in English had become so inactive that not much growth could be accomplished by their aid. As our vocabulary presents itself in the dictionaries, about five-serenths of it are of classical origin. Of course, in actual use, in speaking or writing. the profortion is very different, because the core of the language. embracing the worls of most frequent use, is ahmost exelusively Germanie ; the Germanic part is 60 to 90 per ent. Names of things are most easily and directly borrowed, connectives least easily, grammatical apparatus, endings of derivation and inllection, whost not at all. The foreign material is stripped of its native grammatical form, and often shaped over a little to assimilate it to the native stock of the borrowing language : and it is prepared for free practical use by means of the grammatical apparatus of the latter, each borrowed element thus often beeoming the murlens of a little family of derived and inflected worls. What thus eomes into a language is to a very great extent only words of learned use, employed almost exclusively by those who know it as of foreign origin and recognize its source: but more or less of it, according to circumstances. works its way down into popular use, and is then in no way distinguishable from that which is of ultimately mative growth: the mass of speakers use their worls simply hecause they are in use, neither knowing nor caring whence they came.
For obtaining new resources of expression out of the old material of a language, the methouls can not, of conrese be very various. In the course of the phonetic changes of language a single word sometimes livitus into two or even more forms, which then co on to lead an indepentent life: so Anglu-saxon of has separated into of and off. AngloSaxon an into one and an or $a$, ealsura into also and $a s$ : and we have such donblets as minute and mimutr. conduct and condhet, gentle and genteel and gentite, and som but such a methon nperates only on a very restricted seale. I proeess of much wiler reach and greater importance is that of the formation of compond words. which is very extrnsivcly and fruitfully resorted to by all the tongues of our
family, although much more by some than by others, We have in Encrlish, for example, combinations of every grale -from such hose nuts as bubkoper, shair-buek, through closer. like tablecloth. inkstand, homexteded, reilway. strembout, to such as have been su far allomed in pronmotion or meaning, or both, that we lon not ordinarily think of then as compumd at all, like lreethfust, fore heme, buctsumin, or such as have their origin wholly ennowled from all but tearned eyes, like such and which (from sollike and who(ike). Many a seemingly smple word of ond is proven thy historical inguiry to be pat togetler, mot far hack, from two or more others: fur we are alway: raly th forget the origin of the terms we nse when they are miee made and put to use: and then the promeses ut phantic change seize upon them and alter ant dineruise them pate recugnition.

Sery trequently these processes act only upn one the latter, of two meinbers of a rompombl, converting it into a depentent adation to the sther. Thus aur ly in godly. manly, homely, etce, is to us a mere sullix, forning alljectives from the nouns god, man, home: or, in other warls, as freely, truly, it makes adverhs from anjectives: lut in Anglo-saxon it was an apmentel aupertiwe, lic, lice, our like. The $d$ which makes the past tinlse of cinr " regnlar" verts is similarly traceable to the verb, did, added as an auxiliary in early german langutge to some werbal word. The ai of French chanterai is an anxiliary-joh. "I have." The bom, bo, and de of Latin verbs are of the same origin; so is the $\sigma \omega$ (s) of the Greek future. Thene are but examples of a large number of entinge or suthixes which come demonstrably from indepentent words, at first compombed with other words, then disenised in form, and finally coming to be felt as mere modificatory apmendages, am extented in use in that office. No other methot of producing such elements of expression is known through all the historical epochs of language. It is true that ly no means all sulfixes almit of this explanation: hut that is heeause the evilence which wonh comstitute an explanation is no longer attamable. The facts in our languge which seem to make against it-especfally the instances of internal change like man men. leal led, give gure-are capable of easy explanation as inorganic or accilental sesults of fhonetie change, and traceable to original external addition like the rest. In short, we have here a methot of tinguistic growth which is in complete acenrdance with the facts and tendencies of known linguistic history, and which, in the opinin of the hest molern stukents of langnage, is cayatle of having moduced the whole structure of atech. It works very slowly, indeed, as compred with wholesale borrowing, but its effects are infinitely deeper and more important.

All these methods of change are carriel on, it will hee observel, in the interest of convenient expression. There is new knowletge of every kind to he providel for-new facts. new classifications abstrations, denluctions: and there are, not so indispensable. but as incritable, changes of the instrument of expression itself in its uttered form. in its apparatus of connection and relation. As a whote, the prucess seems a highly intricate one, but in its details it is perfectly inteligible. It is a constant name-making, a neverending satisfaction of the individual needs of expresion as surgested by and built upon the alrealy subiniting unes of a language as governed in the mode of satisfaction by the existing habits of sleech, and by the circumstances of the case. The inlea being conceiverl, the mind reaches after the means of its signification, and finds this wherever it lies most realy at hiad. The mind is casily content : no nicely allapted sign, essentially boolyins forth the conception, is requirel : only a representative which slall be honeforth associatell with the conception, and one having such relation tu antecedent expression that it shall enmmend itself to the acceptance of the community for this is an ordeal which everything in language must pass. Nothing is liangruage until it is aloptal by a commmity as its means of commanieation. Thongh every inlividual chance pmoents from indivilual action, and hais its nwn time and place and ormasion of orimination, the common actinn is mynally a facetor in its history.

It is ease to find, in the antithesis of imfividual action and that of the community, the exptanation of dialectie rariation. Every language is all the timu changing: it changes by specific items, which begin with indiviluals and sprad hy communication, by imitatim, though the whele mass of the communty. Sif lone as they do thas spreat. the language of the community. hossorer rapilly it may elange, remains homogreneous throughout its whole terri-









 *6*




































































 (1) -
 Gablle, the mate- lammonts. Ald were wiped ont by the
 with linman tominion amb amtinations, in loth directions thromsh muthera bumpr, wiving rise to the mosurn gromp









 matil mow they survive unly in the farthest western edges of
 the end of the efobteenh erentury) and the Amorican of

 and the Mrax of the lue of Xath. Irish amd Welsh monn-
 Lanallviret (fi) 'The slamomic, or stapo-lattic branch. The a'al of tha theonte latrages is in Wastern Europe. The





 whath, abl (18tinet) bhl Pramian. Theme have no records ohare thats the sixtennth rentury lat the Lithmanian espe-
































speech into dialects. Where and when that original community lived it is imposilhle to determine from any evidences as pet bronght to light; eertainly language does not give, and can mot be expected ever to give, any definite mformation about it. The fuestion of the time depends wholly upon the grander question of the antignity of man wn the earth; the historical linguist will only say that he does not know how to eompress all the events of the Indo-Furopean langrage-history into the brief space of 6,000 years, and will weleome an extension of the perime : lut what extension to ask for he moes not know. As for the pace, the facts of langnage atmit of being reconciled with almost any theory that ean be suggested. While langage is thus silent as to place and time, it gives some delinite information respectiner the condition of the primitive community, showing it to have been not merely nomadic. but of settled and arricontural life, with well-developed family organzatiom, with dumesticated animals, with some of the ats of lif". and with knowledge of a metal or two See INoo-Eurobeans and indo-European Languager.

The history of development of Indo-European languade is better understood than that of any other family, the materials heing exceptionally almadant, and havimir reseived an amount of study which has been bestowed upon no other; its main features are pretty clear, thourh there remains abumbance of obseurity in its details. The language began in a condition of "riots" (amalogons with those of which, for eximple, the Chinese languare is even down to the present time composed), utterances which were neither noun nor verb. bat were as really to turn to the nese nt one as of another. "They were of two clasies-verbal ruots, expressing material or sensible act or quality: and a small number of fronominal or demonstrative roots, indionting position and direction. That the distinction of these clasese is primitive is not to be assmmed; but it is at any rate waller than the growth of indo-Europetn structure. "1"he first inportant step of growth, it sems, was the making of a prodicative or assertive form-a verh: it was done hy combining verbal with pronominal elements, and restrideting the combination to assertive uses. Thas wre made the three gersons of a verbal furm, in three numbers, singular, dual, and plural: and the addition of a proterit tense with ancment, a reduplicated preterit or gerfect, and a future, left to this simpler form the character of a pesent. More or less of an imperative, optative, and subjunctive, and of a midnle or reflexive voice. also were products of the original tomene before the separation of the branches. 'lhe establishment of a verb left the remainder of the linguistic material in the condition of nomn, noun substantive, and noun adjective: for these two parts of speech were at tirst identical. I sustem of inflection was by similar menns created for these also, indicating case. number, and gender. 'The promons are a elass of words indected like nomes and adjectives, hat coming from pronominal instead of verbal ruots. From the same roots eome naturnlly the principal adverbial worts. indicators of position and direction: adverbs are a part uf. or elosedy akin to, the case-furmation of nouns: the other particles, prepositions and conjunctions, are yet later to arise. The interjection is no "port of speech," bit rather an unanalyzed, holomirastie utterance, analognus with the mondeveloped root. 'Jhus by emmbination of dement with eloment. and the assignment of the combinations to sperifis usos in definite conneet ions. this language arose from a mere imbatinite intimation of meaning-intembed bat not yet cunstructed sentences-such as our explamat ions give, to orderly amd distinct statement : first in simgle clamses. then in elabioratp combinations of clanses, in periods. Ilow murll time the process occupied it is impmosible to say, but it mmst have been a long time: and bofore the separation of the branches took place a height of synthotic development was reached from which, althongh evary branch has more wernt synthetie formations to show, there has heen on the whole a recession, by the substitution of more "analytir'" metans of expression of relation, of form-words and auxiliarios. See Lndo-European Iangu*ager and sintax.
The importance to us of the stmmy of Indo-Enromean Ianguage lies partly in the fart that it is our own family, and that also to which belong the tongurs of the foumbers an? leading representatives of our civilization, so that the stuly is eonnected in its bearings with a variety of other inquiries in which we are especially interested. It has also hern the prineipal fommbation, and abmost the initial phase, of the general seience of language, becanss there was nowhere the in the world so large and varied a body of related linguintic

Whenomena. by the examination of which the enneral laws of linguistic lifeconkl bo dealued, and methots of restareh worked out whinh might be frutfully alplied where the material was less abmolant, and exhibiteod a less leongth of levelumment. llences.an! mot from any orerestimate of this languare as alone wontlyy of inventigation, on as furwishing the norm of haman surech, comes the conspienous absumiton of lingmistie stmbent thas far in Imbo-European studies. It the freaent time the profonnder (ommarative stmuy of other families als, is well preparel for, is becoming more and more urgent, and is ehgiaging more amb more latur: although mone has yet received anything like the sume dugree of eomprohensive and prentriting examination as the Indo-Eurman family. We shall, aceordingly. review the others mucla more brietly.

The Cral- llteic or sirylhicen Finmily-This grour of languares, whely coterminoms with the luln-kiurumean, is often also colled the Thranian, and in waribly reckoned to contain five areat branches: (1) The biano-llumqarian chetly Earopean in lowaty, incmang, besides Fionish and lomerarian or Nagyar, the Laplish ame the dialects of a hast of unimportant tribes stretching thrombl Xorthern and Latama Enroge acrosithe Cral chan. (o) 'Thestmored, aloner the shores of siberia, from the White sea to the Fenisei, and mp that river tothe Jltai domatams. pobably its original stett. (8) 'The 'Turkish. recent recoupants of Asta Minor, and overlapping the burder of Europe, extending over a vast tract of (entral Isia, amd having an important branch, the Vikut, even on the Lena, to its mouth. (f) The Mongolian, yet farther biant, bat nowhere reaching the octan. (5) The Tungusic or (from the name of the prineipal pemple) Mancha, bevoml in the northeastern end of A sia, suw it peninsnlas and islands: the hanclms have also held China in their grasu' during the mast two tenturies. 'The languatres of the first ar westermmost hanch do not difler remarkilaly in thatir gemaral character from the Indo-Entobean, but have more of what is calbed the "agqutinative" tyed that is to say, runt or theme and embine are lens intimately united, rather" st nck tonether " than fuxpl together, the phang retaining a more indepembent eharacter: this results in futh a greater rumblarity and a greater intricacy of formation. The two castermmost members are of a much less developed and more jojume character, varging on the stiff inmempaiveness of momosylabiom: ind this, in connection with nther pecnliarities. linguistic and bhysical, casts some douht on the coherence of the family: Filere is neither abumbance mor antiguity of literary Irombotivenus among the siythian races: their main bart in history has been wat and devastation; the wild and courious mythie popular pustry of the Finns (the Futeralet) is their most original worli-maless, inded, it shall them ont to be true as is claimud of late, that the " Aecaulian "perplet, who latid the fommben of Nesoputanian civilization, aml invented the comeiform writing which was afterward borrowed and adopted by both spmitic and Into-Europran peoples. was tevhian, of the Cgrian branch. This would carry the antiguity of suyhan lamguage bark to a point fully is remote as that rotched besther lado-kinomean or swmitic. The rquestion is not yet settleal.

Of the warions and diverse languages of the Nowthestern Asiatio watare, tho Jequenosp is the only one that desorves mention. It is, though highly pulssyliahic. of an wxeredingly simple structure, bhoneticaly amd mrammatically, mond like the Mongol ant Manchu, and maty prothaps yet be ponsed of one family with them. Its caltome is deribed from ('hina.
The sontheast of Asia is filled with homagers which have monosyllabism as their distinetive characteri-tie. The $\%$ \%inesp is ly far the most frominent amb impurtant amomer them. 'This is a language in the highest dequee remarkable for the paucity of its resurures and the exceding deftness with which they are used, sus as to perform the dutice of a highly coltivated spench during an anprecedently long period. The Chinese literary monoments gob back to nearly 2001) 13, $c_{\text {. . athl }}$ are of ertat varints, extent, mailmat. 'The
 we should write them; but their number is raind to alront 1.500 by the tones of utteraner, this ehement havine been fressed into the service of intollactual dilimetime in the scanty monosyllabic tomens. buth ("hinese amol Farther Imbian. Thit means of furmal distinction aute in lart formworts, particles and auxiliaries, athl in part position in the sentence. The intelligibility of the literary langange is mach athed by the mode of writing, which is to a great




 Thu Barman. =amme




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 manland: that of otas and baili, coming from luma, hat





 that of an other knwor thernas.


 Whonmon it atramb of that famils. Its prineipal mem-



 diabocrapmarm! akin with mo whers in the world, and


 harron and thimly f"pmlatel pr-nianula of Arabia, with it-


 worthern and unthern, the formor rempand of the canam-




 literature of the Deverw wrmen durine the life uf the























it - apmarathe whly rechty. phesesing hut few records whin atw ulder than Mathmed (veventh ewntury); but





 mex from the fonth ermary: the Ambarie, which has -rawhed the other ont of cultatiod ase. doses not appear untal the twelth of thirtwith. "lhis is the ament astri-



 tim, and of the inethern burder of Jfrion and has influHand, and more or lem tillenl with it material, the lersian, Turhih. and Hinhastan, an! wen the widely sundered Gratioh amd Matay, thas wiming a sway comparable to that of the latim. thongh falling far share of the lation in the impertane of the derined languges to which it has Liven birnt.
Tha sumitu raw has phayed a far greater part in history than any wher, same chly the Indo-Euryman, and its lan-

 iner in char lamily; they are cherly kindred forms of speech. Xin. appantly. heante they have heen more recently sepamand than the Indo-formean dialects but becanse their

 than that of any wher family of languares. Its striking
 Hexinn. 'The rents, maty, have met, like the Indo-Euro-
 than the consmunts an interral part of it the rowel or bowd in cimitic have a fomative value, are indicative of Whation, wh leos that the vowels of man and men, of bind and broud and bend and bond. Snd (with minor exceptimesthe radical comsonants are three. Sultixes and pre-fixe-and wen intixes, clements inserted within the body of the rent-are not manown, but the sphere of their
 lown-burnuan by athixe is hete acomplished by internal change of vowel. Thas, for example (in Arabie, which is hy far the most regular and tamsarent in its structure of all tha lialde (4), all that we can whl the root corresponding t.." kill" is $q^{-t-l}$ : gatale is a thirel person singular, maning "he killed," amb qutilu its passive, "he was killet." uttale it = ransitive "." he cansed to kill.". qatala it-mative, "lae tried to kill," inquata its reflexive, "he
 "kill:" and a sember at of verhal persons (hardly to be (ahled a tenc.) has this fom of the root: yaptulu, taqtulu, utulu. and wo.n. The active particiule is qutit, "killing," the intensive iqtal. "cansing to lill," the passive maqtül, "kilhel." Tha" intinitive or verlal nom is guth, "act of killing," aml yit!, "crumy," and qutt, "murderous," are - H "-imeths of derivative worls. These examples are sufficiont to set forth the remarkathe features of semitic suech. Wic have parallelel abowe the intermal lexion with the Germania ahlant of bind and bund and their like; but the comatial differnere betwen the 1 wo chases is that what in lab-Fineman is rather at sumble phenomenon, and enable of eas. explanation as the quesi-acoidental result
 in stmite the wery life and win of the languge, irreducible to anything differnt. It ie, lumber, the prevailing belief amming linmax that this comation of semitic language mat he the reste of a wery pernliat history of derelopment wat of hagming more amatogets with thase fomb in other familiouf - poch : and attompts arr eonstantly making to F"unt ratu the seret of the dereloment, hat as yet without aby comadarah manm, of amom. It is very certain,
 betwen the s.matice and any onfor tamily unt it the attempts prowe suctomind. It is a favorite suliject of elfort with - me philughine to demonstrate the primitive mity of the
 diontone ont-ide of langage which faver the conelusion; bat that far, at any rate, The language is an impusable barrior.

The ofler peraliaritio of temitio structure are of small andumt an compared with thane alrealy noticed. The verb
tends more to conjugational distinetions. such as have berin illustrated, than to distinctions af tense amel mamb. It marks the diflerence of gender in its rersomal infleotinn. The nomn is almost destitute of ease-variation; it and the verb have the three numfers foumd in early lndu-furomem. Secondary derivation, or the formine of derivative from derivative, is almost moknown, as is alse the fommanom of eompmoms. Commectives of elanses are lew and simule. See Sbmith Janigrages.

Amoner the languages of Africa, those nearest to Asia, grouped torether as the Ihmitir family, are often clainnorl. but on grounds which must be prononuced thas far insutlicient. to be akin with the Semitie. 'I'he family is reqkoned to comprehend three branches-the Firyptian, the Libyan or Bedser, and the Vithomian; the most comspicmons mimo hers of the last are the Galla amd somali. The Finvotian of the modern period is the Coptic, which has a chrintim literature begimming early in our era; it was over"mwered by the Arabic, and became extinct several centurles ago. The ancient Egyptian is the lamguage of the hieroglyphe, and has older records perhaps than any other form of haman speech, reaching, in scanty measure, probatbly into the fourth millemmium before Christ. The Egyptian is a tomerue of the simplest possible structure, with defleident distinction of its parts of specels, and with vary little flaxion; su untirely lacking the characteristie features of somitie that, in spite of apparent enintiblences in their pronomas and elsewhere, the two can not well be brought together until the riddle of cimitic structure is solved.

The extrome sonth of Africa is ocenpied by the IJottentot and bashman dialects, which have been claimel, thoust probalby without gom reason, to be connected with tha Hamitic family. $\mathrm{F}_{\text {. of }}$ of them, and up to the equator, aro foumd the branches of a well-defined family, the south Africen (or bantu, Kallir). The marked ${ }^{\text {bechliarity of its }}$ structure is its use of prefixes, instead of sullixes, as principal inflectional apparatus. Those of its languages which border upon the dlottentot share with the hatter (from whan they are believed to have derived the permliarity) the prossession of clicks, or smacking and clucking soumds, in their alphabetie system.

Between the south African languages and the direat Desert lies a perfeet batnd of languages and races, into the little understoot classification and characterization of which we con mot here enter: Even the hest aththorities are groaly discortant in their treatment of it. See Afromas lasigUAGES.

The ancient Etruscan of Northern ltaly, and the Baspur, on the border between brance and Spain, by the bay of Biscay, ate the only other languases of the ond Word which call for mention. Both seem unrelated with anythiner else in the world, and the baspue is perlapis a relie of a family which oecupied at least some part of Western burope before the intrasion of the Indo-tharupean meondes. It is of an intricately arghatimative structure, commonly styled polysynthetic. See Basque Langutas.

The same polysynthetic stracture characterizes the languages of the New World, in the main, and is the ronly tie by which, if at all, they are to be connectal together the at single family. See INinass of North America, INomas of Central America, and Inhaxs of South Ameried.

The classification here given is strictly a linguistio one, making no accunnt of the ethnological division of hmann races. botween the two there is not a necessary anourdance. Every lamumge, as we have seen, is am institution, kept in existonce, like all the other parts of mur anpuiral and acemmulated colture, by a proetss of teaching and learning ; it does not go down by descont. Just as any individual ean, if ciremmstanes favor wo repure leath as his first languare or "mative tongue" a dialecot which is not that of his ancestors, so a rommonity-whicli in this respect is only an argregate of indiviluals-can du the sume. Such cases have ocourred, wer and wor asain, in the history of the world. Like the useful arts.the sciences, art. religions, a languge may be abantoned by a rate which had produced it, or assumed by one which hat no part in its probluction, because nature makes all men capable of speeeh, but prescribes to no one what spuech he shall ans. ret. while a langnage is a traditional institution, it is the most elinging and jersistent of institutions, and also the one rumming out into the greatest infinity of detail aud possessing the most motably oljective character. Wurds, sentences, grammatical structure, an be romoded ami turned over and compared almost as if they were real sab-
stances, like fossils or archarological remains. T'tuse qualitios make langmate, buyoml any other lamann prombut, of value in tracing out the relations of the slifiement mections of the haman race anterior to the "pobla where trust worthy
 but only a mobability. Ilmman commmatios lave been inflonering one another since the heginninim of time: and it is mot yossible to saty almalntaly of any ran'm on earth that it has mot obtaimed its spereh sumem lait as the prenel got their Romanic, or the Normans their Frometh, or 1 hat laish their Enerlish. It is moly the foren of civalization that give
 natmal limis-that emable a minurity of a mixel commonity to determine the spech of the whole: the rumber the prople, the greater the probability that its linguistice ralations represcrat its dies of homb. Ilenere the truntworthimess of lingristice evidenfe is rratent whore it is most de-sired-among wild and primitive races. as to whom racombed history is silent. The cothombarical problem is doubtless ten diflicult to be ever complately solvorl by a t the mutual encromelmments and suphrinsitions of races, with comserpent mixture of blood and of speech in every draree, the dwindling and disappearanee of own race and tha expathemon of another to greatness, form a woh so intricate that it will never ha marabled. In the present comdition of ethare]ogr, language is the richest ami most reliabla somree of information. Thare are ultimate guestims which it can mot
 some day show a higher anthority subh, for example. is that of the muity or variety of the haman race ; lare: linguistie soience can moly sity that there are on the one hamb, no differences betweren limman lamentures which might. not be the resml of lator diverigenere from a common mucleus: and that, on the other hand, there aro atrat many languages so unlike llat they can never be proved deseemded from the same anmentor, since they show hu correpondonces which might not be the rosult of aceinent. Linguintic matorial is not, like fhysioal, analyatble to its mimutest elements: creation, annihilation, tramomutation, are the commonest of processes within it: it yields its results only to histurical methods of investigation. Thans far, it has been found possible even (u mite into fanilies only languares which hat the bond of a common strueture; comrespondremes of material, of radioal elements, anterior to tha growth of structure, have not been atrailable: and althomen it need mot br doclared impossible that they may yet be fomad avalable between certan fomalion it is ablablately impossible that they shoulal be se betwom all. Kast-emmparisums, among fariblies of marelatesl moutture, are in the very higheat degree prearions; none pet made are to be ayporiel as soumd.

The question of the origin of language has assumed an entirely new arpect in comserpence of the rocent progress ol' lingrustic arience. It is clear]y aren that language as a euncrete jussesmon, a stock of words amd plotasers nsed lor the commonication and elaboration of thousht, is in mo proser stuse al the worl a gilt. a natural capracity, a facblty, but rather an accumalated acorabitim, the onteone of certain faculties and tendencios which bednog to man and are a characteristic bat of him. 'Tomantain the divine origin of langragi mow is simply to hold that man was enlowed by his ('reator with those faculties and trmanemes with the fure seemand intomed purpose that be work than ont to the joissession of languige : as, in a difment hat still essontially similar way, with the wabables that have bument him to the possestion of his ot her inst itutions-at regulated suciety, of art, of the arts of life. 'lo lrubl that he was purt in prisSession at his lirth of a develoned spuedh is abalugens to holding that he was provided with hanses amd elothes and instrmannts ant machines. The furmal structare of langhate. (well the mote formal part of its vastmary, we sue
 formbes roots, indieative of extermal. semsible ants sum yualit les-in the same manner, amd for tha somu feakom, that instruments and machines have been dewnoped ont of simple sticks ambltones and flakes of flint, that arobitometure hegan with eaves and hut* and dress witl skins of animals and fig-leaves. 'To investigato the minin whamump in to
 induity is not a part of the historical winno of language. becanse histury bringe us omly to the ramention of these. and to the recognition of them only in their kind, not in their conerete identity an such ann shelt ntterances. It is an emential and frominent $\mathrm{f}^{\text {art }}$ of linguistio philnsenthy as



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 The - fher. if hataral, m-1











 lazal. The for : mimas.

 for the ofano who ho. kmos, will anmer his call, that is
















































 For mahe lanemare 小-


Inoth, ift their dnerm amb within their limits; nothing like mutherace i- guable atherwise. The pewer of the deg in


 f".mer in man, and maties it capable of vasily higher and Em, क. atmatan work.

The pommone in wither lanmare werywhere of the
 - - mial neame of the wath of metrante the move-



 -mill rxpmbimix of manditr afort which they eost, in then pumer formanam andotion from any direction and in the dark an whil an in the liath, and in the liberty afford-

 rabime avalatiltion of woul and stome and metal. That we find evers bat of the hman ratw, at the very beginning

 their relations. meato nu more than that the whole race had lism lane though to hase worked ont its matural gifts to tholr foremantry and intombed results. It by no means
 utcrance, was the prine that for a puriml. of duratind imporithe to determine, men mas have had an "xpmonan difleqent from or higher than that of the amimale mext homath low in the seale of creat tinn. The man ural (a- li-tinguinter from the conventional) mashe of "xponion sill mintinu most important auxil-
 shatmont. whe and geture and !nsture and facial expressinn are rapuish: thay are the sulatetise mans whereby the permality of the suaker is impresed upon the hearer -wherehy ha mave "xeiter, pusuades. Their power is areater amb their aill more indi-pusable the lower the grade of the lanenarg and of thon who use it. In the highest Walnuration of ywo.lo and with those trained to employ and interpert it with the hemant sumbibility, even the writtwh fare shws the rader the sary tone and action of the

(hat of the lanling part ansmed hy the voice grows the mumerance of omomatunita or the vocal imitative prineifhe in the amph histury of haguage. The intent heing (1) make in intellisilld sinn and the vice the instrument, ablible stmok are the matters mon eacily signified. This is just an hatural and meresary as that in a written system of simne the muline of vivible abjewts are most easily, and there fore arlint. siguitiel. A hieroglyphic mode of writind, int, whded for the ewn to underatand, hegins with pietures of thine that strike the cye. and procerts from them, in va-ron- Wiry- to imbata mittorn of more varied and even of
 like manue with a rade, sketby depietion, as it may be



 though thon may woll whugh hava ben the dirst subjects of reprolaction. What it- limits are mate best senf from


 hinntinis of sumble which make thromeh the ear upon the
 themathes haverg the we. While this was a prineipal - Le: "tumath have han limm wen mare fatile than we now

 af hanatge, in combination with the taet that the same primeiper antimus ediciont. in grathe or foss degree. throush the whele hi-tory of hamenare: it does not depend M"M onr ability tutrace the main mice of matorim in any

 frit cummanication hotwen mall and man, onematoperia
 "rtain quanty of intulicibde sixnc, hy the later and now
 -I thene signa: and, with that rembinmesto forget therivations
and discuise of yonolories which is a lealing and most valuahbe leature in miveral langage-histury, the sight of imitative urigin would be hidden amd lisappar.

If by such methots as those hare ileseribued there cond he made a sulleient working provision of signs. th the developed by degrees inta such langratos as we mow find in the world ; if these methond are in hamony with the known history of langage the one stage fasing into the other without a break or a change of roverning pinciples if, from What we know of man and of his linguist ic capactither and activities, these are the method by which a now languge would be ereated if it were pasible that is emmanity of human beings should berin life again withont any-then this is such a solution of the problem of the origin of language as science demands.

It may be hriedly minted ont, in concmsion, that there is no relation whaterer between the Awseloment of hagnage and any development of man himself unt of a lower tyide of animal. Man was man in endowment when the praduction of his present sueech legan: its acquisition. like that of the other parts of his civilization, hats mly helned in the development of his powers, raising him ligher emp higher in the scale of manhood. ant being, of all his acquisitions, the one nost fundamentally important, most needful and hel tul to everything else that he possesses.

The view of the history, nature, and origin of language here compendionsly presented will be fomm workech out in much greater fulliness in the writer's works, Latmotye and the Study of Lanmuage (New York, 1s(6): Orientat aml
 of Langunge (18ia), (Hther reneral works on the sulpecet in Englishare Max Minller's Lectures on the sfofene of Lant quage; II. Wedgwood's Origin of Langutye (1ondon, IN66); E. W. Farrar's Chapters on Lategnege, Familios of Language, ete, A. Il, sayce's Principhes of 'ompratetine PhiGology (London. 1874): an Introuluction to the study of the History of Latmgnege, hy Dessis. Strong, Lageman, and Wherler (London, 1s!n) fommed on Pauls prinnipien der Sprachgesehichte of which there is also an English tramslation ; J. Clark's 1/annal of Linguisties (Bdinhurgh. 18:3).

To trace the history of the study of linguage, from the often surprisingly acute but crude ind nirrow speculations of the ancients down to and through the remarkable conlections, comparisons, analyses, deductions, of the great linguistic scholars (expecially ill (iermany) of the nineterntlo century, constituting the vast and rich department of "comparative philology," is a task by itself, and will not hate be attempted. The best ant horities for it are L . L (rselh, spruthphilosophie der illen (tst0) : I1, Steinthal, Geschichte for

 talischen Phitologie in Deutschlend (1)69). J. Iolly has added a general sketch of the history to his Germin tramslation of the writer's Language and the stud!y of hongurege (Munich, 1si4) and some interesting details are given in the first series of Müller's Lectures.
W. 1). Whitxey.

Languedoc, lanigglok [Fr., orig. the name of the dialect of French spoken thope; lengme lamquase $+d e$ of $+v e$, Prov. for yes. whill being distinct from the northern oft ( $>$ Man. Fr, oni) gave this distimetiwn mame to the languget]: one of the old prowinces of France: bommed $s$, tye the Mediterranean and E. by the lhonn; it lute while at Roman province the name of finllin Sorbmensix: pamed from the Romans to the Goths, from the fint his to the saracens, and from the saracens to the comons of Toulomes: in 1201 it was finally amexed to the French cown ("hristianity was introninced from (ipence throngh Marsoillese and Lyons, but from the very berinnine the elergy complained of the peenliar predicpusition the peale shay for hare-y: Languedoc was the chief seat of the Cathari, and afterward of the Camisards. It is now divided into the departments of Ardeche, Dude. East Pryentes, Thar darmme, Gero, Hérants, Lozere. Tian, and Tamot-Garmane. The chief city of Languedoce wits Joulsus's

Lan'ier, smyey: $]^{\text {wet }: ~ 13, ~ a t ~ M a m m, ~ G a n, ~ F o h, ~ o, ~ 144 . ~}$ He served in the confed rate army durine the vivil war, and was taken prisumer. Aftur the war le tandit sechol ant 1 practiced law in Shamand Georgia, moving to bithimore. Mh, in 1sas. From 1sat to 1sti he was lecturar on Knglish Literature at Johns thopkins Cniversity. He was a practical musician, and aplfiel musical principles to petry in his Sciente of English lepse (1850). We wrote the cantata sung at the Centemial Exposition of 1sig. I emm-
pate edition of his porms, with in momer, wat phathen in


 1851.
11. . . Bemis.




 to the state demeral. As a momber of the lomention he sided with the (irmondists, and while he wi-hen to downe

 ures of the Jambins. Thand denving the ripht of the ('onvention to try the king, he whed him guilty of the offenses charged, but adrowated baniwhent imseal of the dath
 Remmes. and reamed lis seat in the convention in 17as, after the fall of the Terrorists. Horing the bine tory he was a member of the Commeil of Ancients, and of the rante lurime
 tion against the monarchion temben ies of the govermarnt ,it Xapman, whe nevertheless made him a connt on the extablishment of the pompire. In tso he was male at member of the Institute. Ile wated for the deansitian of the rangeror in 1814, was made a beer of France by lomis XV1A.. amy
 pusition to the reming palitical and eceleciastical reaction,
 are Apmsiciation dy projet rolntif ther trois comeorkats (1517): Consfitution de la nation fomenise (1'aris. 1415); Ife toryanisntion monivipule on Francé (1821). We was a man of great literary attainments and aftor his death his suth. Victor Ambroise de Lamjumais, published a conltected


Ravised by F. strmes Aldex.
Lankester, lang kester, Fiwns, M. J., hl. D., F. li, s writer unseientifi-suljects: h, at Melton, Sultulk, Fingland. Apr, 2:3, 144: sturlied modicine at C'niversity Colbure Lam-
 lecturer at st. George's simmol of mediofne $184: 3$ : sectetary
 New Colldge London. 1s.a0; president of the Dliwnseopical Soriety 1859: was clected coroner for 'ratral Midmeen (eity of Lomden) 1sfo. We acepuired uide fame as al leeturer

 many valuable reprts and winntilie parnes, and of varinus

 I). Uct. 30. 1sit.
 of Eilwin Lamkester, M. 1): h, in Lumbm, May 15, 1sta:



 Profosor of Comparative Anatomy and funw on Mertun


 development, and chasifiatinn of inventhoter, and was the author sf the articles Holluser and Protacon in the last
 works are Pishos of the "He lied shombitome (isom) and fom-
 twen editor of The (Gumeterly Journill af Micmasenpient sci-

Lamman. 'hatas: anthor: Ho in Monme. Hioll., Jume




 ington the fusitions of librarian of the War lepatment, and
 librarian of "epprishte in the State le partment. and private secretary of baniel Webater: dibarian of the Interion lhepartment, and librarian of the Howe "f lapponatitus He puhlished a momber of wolume of travel : Primate life
 ary of Congress, 6 eds., three of them fuldished by the

Moturne: for lo la Noue
limien by li. M. Cilliy.








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Neil Macimalab.













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hank with capital of $\$ 100,000,3$ State banke with combined
 and emonthly furionicals. The manfatures inehnte agricultaral implements, shems, stows, camiagh, rat-eats,

sitate Capitul, Lansing, Mich.
wheelharmows, pressed stume emmitused milk, flamr, knit
 (1890) 13, 102; (1s!4) $15.84 \%$.
 the Reformed Churel in America: h, in Damasems, Syria,
 wiek Theolorical heminary. He Jwoame minister at Mohawk, N. Y., 185\%, at West Troy 18s0; I'mifusor of (0h1 Testament Langnages and Excmese in the New Bronswick kominary in 1884. The is the anthor of tha dmericuen harisen limsion
 ual (1880; 2l ed. 18:t).

IT. .T. B.
Lansinebntern: village (named [rom Abralam .J. Lansing. who sutteal bere in 1701): lidusselace en.. N. S. (for location of county, see map of Nuw York, ref. J-k ) ; on the ITulson river, and the Fitehborer lailroat; $: 3$ milas $N$. of Troy. It is commeded with Troy by alectrite railway and with Waterforl and Cohoes by brindes acros the Ilman. There are 11 charehes, it phlie schools, parmohial sehow, public-school library, academy, and 2 weckly newspapers. The industries incluble the manafacture of binishes, crackers. oileloth, and eollars, cutfs, and shirts, amb the villare has
 township, incluling village, 10.871. Emoton of " "1mes,"

Lantánal [Mon. Lat.] : a crane of mostly tropical strubs of the family Terboncere. Nany hase stimulant amd aromatie qualitios. $L$. psentothoa is hiohly estemmed in brazil as a substitute for tea. A momber of the species are beantifal greenhonse shmbe, notably L. cummoru and mixta of tropical America. The L. A. have at least two species native to the Galti States. $L$. cammare ama inmolacralia. Suma. have square stems. The thwers are mostly showy and of changing eolors.

Lantern [M. Eng. lantomp, from O. Fr. $<$ Lat. lantorna (also later ne ). from Gr. גaustho. light-staml, toreh. liter. lighter. deliv', of $\lambda a ́ \mu \pi \in t \nu$, shine, wive hoht. ('f. lame']: in architecture, a small structme of somewhat lieht and open desien and decorative asjuet, smmounting or combning a dome or whtre more massive and important arehitectural feature. A conspichonse example in medieval arehitenture is the lantern of the Chmed of st. Onen at lionen. France, a polyonal turet of rich open-work tracery nter the interseetion of the nave ant transept of that chmald. Tha lantern, surmomating a dome, is an invontion of the Ranaissance, intembed to give lightnose amb mownarit to the converging lines of the extorior dome, to whide it serves as finial. The bantern of the bhomo at Florence, finishat 1461 from the desions of Prumellesehi, is the earliset example of these. Eren more celehraten is the erabt lantarn of st.
 after his leath in ligat.
A. Г. F. Tlames.

Lantern-fly: a name given to soveral incects of the family Fulforidere. Of these. Fulyore cambletrie ul ('hima and $l^{2}$. lanternoriat of Guiana are the hest-known sprives. and the name may have been hestowed upen these insetts




















 simply as a member of I'arliamem, of which he wat wectad

 Once more antoring [baliamemt, amb having lean olectal
 the ministry of Menabrea, ank resigned his pusidenay whon
 diasolution of the minindry, and he now matertonk to form a new cathot himself. Xhe ocruped the Ministry of the faterion, amd tha" wher members belonead mostly to that



 wheless, as the ammexation of thu papal states in 1-io tomk
 navy were neremary. The peoblin tendmey of the lialian Parliamont to wrant tha wapeses, hat for reject the laxem orerthrw the calhinet of lanzal in 1473 . On Jume $2: 3$ he msignel, as the larliament would bat allow sclla's tas bill to



 tile, and protuenothe fincol grape amd wines on the ('anat
 Tegure is the capital : Arrecife the prine ipal purt.

Lanzi, landsed, lufer: antiquary: b, at Mante dall

 dimector of the gallory of Fromene. He devoted himself



 tion; the lattm wastranslatod into Fiorlish by Tlmmas Ros-

Lanoc'oibn (in Gir. Aaokóws) : a Truginn jatriot and pribat Whas opmext the introdtetion of Simms wonlen harse inta the city of Troy. The almost dofoated the platis uf the Graeks, and theraty arnased the anser of Dthme. whalused the Greaks beeame she hatma Paric. Whan Lamenin was



 of a molnd group now existing in the Valian. It in ald























































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Lator．läatio（lat．Levent

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 （the shan shatoon and ane formen in haren mombers in Ton－ quin und Smaam．

Mark W゙．Mabrimeton．




 name who ：mil his style forymy．Il，was bom in the bar but be ©，in the villace of Kiuh－jin（oly ressed benero－ Jemen）in the priminh of Le（armelty）in the district of K＇0 （hiturneor），in the fincipulity of＇to（this ress），in the pres－ ＂मu provine of lham，of jerhats in Xgan－hwuy．His father is sat？th ham hen a peasant，who at seventy mar－ rices an whan chly hatf hicage．Little is known of Caotse ＂ampt that he was mate libatian and keeper of the jmperial armive at Larane，the chital of＂low．In the vear 517 low was wion liy Confucins then a man of fifty，while Lao－ is was dighty－fiem，who wishod to comsult him in regard to ＂apmonims and twhand in a buok tor be preserved in the arthives．The arenat of the interview was not flattering turonforin，Whar attarhment to the ancient－and whose

 Why talk no fomerer of math whate hong hand，and whose very bun atre dat！Gnly their work remain and are

 ＂aly．and fullows hivelostiny．I hate heard that a shrewd


 in yin manner．It is all folly：and that is all 1 have to

 rum：the pmome may he name，the swimmer lowked，and


 hitu ：14 the dracim．

 hime blo intrime in the N．W，wf the state，instructing








hi．Balefr．






was so great that it remainet for the proviol of antiseptio surgery to render this a comparatively simpla and safo oproration. It has been of especoal serviee in the surgical treatment of discases of the ovarits and utarus. Iat the formerr the operation of ovariotomy is mow mate of the remmmonest surgical operations. It was tirst perfommed by an Amerian
 by the same surgen in many casis, but did not gain general popalarity with physicians matil very revent years.
 of the organs of the pelvis or ablumen require dired treatment or remonal. It comsists in the carefal openine of the abdumen, generally through the midale lime of the bonly. Careful cleanlinession ase psis is meersany to avoind the wreatest danger, peritonitis; and in the subsednant chosure of the incision acemrate adjustment must be ahtained to ubviate the danger of wakness of the walls amd hernia. With the modern improvements in surgery both of these dangers are extremely slight, and in unermplieated eases the mortality of the opration in itself is almont mil. Willan Perpmor.

La Baz, lat-paiz' : a town in the nomthwastern bant of the province of Entra. Rios, Irgentima; on a hadl abont 100 feathigh, a little bark from the left bank of the l'aramat
 about 9,000 , ami rapidly increasing. It is one of the most important ports of call of tha upper Parana, exportings
 the Montiel forest. 'The town is built on the site of the oht Guarany village of ('avallú- watia.
31. I1. S.

La Paz : a northwostern department of Palivia; the most important and prombus ul the raphbic. and, acoordiner to olficial figures, the largest ; bommel N. by Brazil, Fe hy
 official hat very vague calchations give an atea of $2 \pi 5.413$ sq. miles. It may bu broadly divided intu two piarts. The northern portion. motil lately inchaterl in beni, is a vast

 tled boundaries with Brazil and Peru: lout if tho abovementioned officia] statement is taken, it has wer ?00.000 sus. miles. So far as known it, is a pain, mostly coverod with forest, drained by the Beni, Mirlur de Dius, amb Purns, amb inhabited moly by savage molians. The remainder, and at present by far the most important parthon of the department anf of Bolivia, is in the Antem remion, and, as a whole, is the highest part of the republio: the area is extimated at $6!, 000 \mathrm{sij}$. miles. It inclulles most of the bolivian portion of the great 'latieaca basin, 13,000 l'eet high, with about half of Lake Titicaca and the uprer portion of the Desaguadero river. 1a. of this basin, and limiting it, the Eastern Cordillera, here known as the (ortillera keal, extends from N. $W^{\prime}$. to s. E., including somata, lllimani, ind other snowy peaks, the highest in Bulivia. Sub-rumps and spurs of the Cordillera cover all this portion of the dubart nent, subsiding east ward to tho lonnívalley: the Bunif itsolf rises high among the mountains, and recoives numerons tributaries, La Paz includes namy evory variety of elimate, soil, and prombetions. The finest portions are the cool, elevaten valleys on the eastern slopes of the (ordillera, where most of the jopulation is gathererd. The wet satson lasts from Oetoher or Sowbmber to Mareh, rains being nome abundant $t$. of the monntains. The priancipal agricultural products are potatoms, quinoa, and harley in the 'Titieaca basin; maze, wheat, beins, coona, de., in the high valleys: and cotbee, edeau, rice, sugar-iane, and tobateo towatil the Beni valley. The forests of the lower momatain slopess amd plains are rich in cinchoma, rubler, eabinet wonds, ete., as yet but little utilized. Thew are large aroas of exorljent pasturave, and cattle amd shery lirembing are impurtant industries. 'l'he rich gold resions uf lbolivia alre partlyo ineludent in this departmont : the corncoro anpler mines, near the Desarmatero. produre must of the lanlivian supply of this metal; and silver, tin, and other minarals are ohtaned. The few mandactures of bonlivia, and nearly all its projected railwiys, are in this department, which is the eommercial center of the conatry. P'op) (estimatot for trac. and


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La Paz: a sonthern department of flomburas: bemmed




and grazing are the omly industrics. Tai laz, or l , at Piondras,






 terest. The inhabitants ant mainly moraged in gald and silver mining in the surroumbing region. 'I'la' [warl-li-h-



 6,040).

1]ERBERT Il. Suma.
La Paz, of La Paz de Ayacucho: as rity of bolivia: eapital of the elepartment, ablid at present the seat of the bolivian doremment; in a hieh valles on the eqistern man
 low pass, and eommunitating with the lake hy a roarl fos




 Harrow. 'Tha' ruger and siveral strathe whirh how into it


 mamy rhamehes. 'The roity has a miversity, schmols of law,
 is the Aamedia, a latatilul pronienade plantod with fond rows of treas: from it thare is a surnth viow of the monat tains, inelmhing llimani. Lat fa\% is the commereial mo-
 of railways, sume of whicla are in cuntse of cmatrontion: at preant it is wnorally ratohed by dilignce from Lake Titi-
 atome is about 50 F.. the "xtremes abservel haring sav-
 coll. Pnpmonnia and kindred hisatsas are somewhat preyalont, bat inmsimption is rare lat Paz was fommedra in Th-th on the site of the laca villigi of ("huguiapu. It was
 (100) ateording to somt entimatoss). Il ERBER' \| . Sumpa.

 Trunk ame the Minh. Cont. ralnass 46 miles W. of lort Thuron, 60 miles N. by W. bif Ibetroit. It is in tun thrioultural region, with a large trade. Iopr (1世NO) 2.S11: (1s! 2, $753:(1404)$ 290.

Ejator of "('larion."
 Frame, almat lidio. Ihe was an eater fullower of the revival
 Míter (tsia), after seneca, by wharh he somplat to supmitt Jomblés attempt to reform French tragedy anowrimer 10


 manneript ; the were pablinhen in lisiti.
A. 1t. ( ${ }^{\circ}$

Lapham, Trorease Alien, I.l. U. : matmralist: h, at Pal-
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flain celetial phomena-the anomaly of the lunar areelaration and the areat inequalitios of thpiter and sat arm.
The doctrine of l'robabilities-the subjecting the the rigor of mathomatical methots sulijects which know no law (i. e. of chance-furni-hes the ment subthe and at the same time the most fasciuating of problems, necmpyine ats it were at borlerlant to Metaphyiow, lavie, and liathematios. The Théorie onulytique des Probuhtition wh Laplatw is recraded as one of the allast fremmph of mathemation writime of his are: but mo which can hot bere be discowed. Fiep Pendabidity, 'Ineoby of.

In this briof notice it womb $\mathrm{b}_{\mathrm{o}}$ in vain to disense Laplace's distinctive clams to ureatmess as a matheratician and a philuspher. His manery of mathemation analysis was perhaps unsurpased, and he has contrimien greatly to the develoment of this powerful aunt of haman reason, esperially in its application to phy* teal prohlems. Ne is the insentor of the inest puwerful cateulus since ganmalized and entargen as the Spheriat llarmonic Analysint known qenerally as that of Lapdue's coetficients. isue Coepficient.) it is due, however, to Leamder to say that he (aceording to Dr. Forbes) "ras the first to inasine and employ those artifices of calculation known as 'Laphare Functions." His longest and most sytematic work, the Méconique Céleste, is a compontinm of the problens of physical astronnmy which hat been accumalating for a century, but which are treatul by mothods mainly orisinat with himself. This work, thongh written with entire alisregard to preserving the order and connection which wnda enable the reader to follow him, is justly consitared his most imperishable monument. Dre Bowlitch, who has appended voluminous explanatury notes to his tramslation, was aeeustomed to remark, "Whenever I mett the words of it est aise a roir (i. e. it is easy to sece), 1 an sume that homes and perhaps days of hard study will be neressary for me to discover how it painly appears." It is certainly in hisparagement to the work that it shomld he so, for most mathemanticians will admit that a little merer resaral to onder ind comection, and a slight combescencion to furnish explanat tion or clew, woma make the work more useful, certainly more easily read.
For a short time Laplace was one of Napolenn's ministers. The canse of disagreement is unknown, but his was not the character of mind best filted for politics or diplomacy. and he was eridently out of his element. No more infelieitons or unjust eharacterization than that applien by Napoleon, "the infinitesimal philosopher," contd have bern mate. No motern mathematician has exhibited greater powers of generalization: and in his Nebulur Iypothesis we have one of the gramlest concertions of the oririn of the actual coames, as the result of continums action of physical "laws." and one which has anticipated modern thought in relation to development. Laplace has been censured for "meanly" suppressing in the secmed elition, puthlished after the emperor's fall, the dedication, "A Napmon le Grand," which had been giren to the first edition. Mr. Todmunter (IIstory of the Theory of Probubility) thinks that "the fanlt was in the orisinal publicatiom, and not in the final suppresion"; and that it would have been "almost a satire to have repeated it when the tyrant of Emrope had become the mock sovereign of Filbat or the exile of st. Helena." He has, two, on very inalequate gromats lurn charged with atheism. His last words the diad in Paris, Mar. 5,1827 ), so similar in sentiment to language attributed to Newton, his great pretmessor, prove that, like that great philosopher, insinht into the invsteries of nature depper than ther men's mourinhed in him not arrogance, but humility:
 ignorons est immense."

Revised by S. Newtomp.
Lapland, or Lappland [lit.. the land of the Lappe: in Lappish, Steme üdnem]: an "xtencive territory in Northern Eurone, stretehing atong the Aretic "hean frim the Athantic to the White Sea. It is not an indepembent political unit, but inchulas the northem parts of Norwar. Swednan, and Finland, ant the northwestern part of lansia, amd wontains, in ahlition to the oriminal Laple a considerable monber of Norwegians, Swaltas, Fintus, and linsians in it prouation. Duwn to the fonreesth century all Lapland, including the Kula Penincula. was suppoself to holunes to Norway, and Nopway collected her su-called fintax. (iratually Linsia semmed control of the Kolia Poninsula, and in 1752, after murh disunte, the premont humdarims of Norwegian Lapland were established hy a traty, ademblig to

 Lapland is bumbed on the N. hy the Aretic (heman and an




 Xirway and swenten comsits ul monntait phatman- and
 barren and smber. hut there arp -pots wheme the and is fortile, and the momony is accasionally reliesent by hamiant forests, large lakes and rivme and sinw-callym momatainpeaks. Jore than hall of limith and lamian laplam is


 ralleg in Norwaty and swelde but the summer, with its minhight sum, in fousthert to permit arain to rijurn. There are many excelnont iron and catmer mine and the watensive formon of pine shace, and hireh wive mondoment to thansumbs of patple and bied hambone ravenues. Alene the cont fishing is an impront industry and the principal
 momalic Lapps, the only inhabitanta. yet their subsistence exclusively trom the romber. The nomber of monds is decreasing. partly because many sell their huth and take to fishing and stork-rasing, and partly becamse the Rusninn lawn of 1852 lwhilit the Nowersian and swedish Lapps from pasturine their reinder on lussian tervitory.

The lpople and their Ilobits. -The Lepps, whom the Norwerians and Thans usually call lims (Finnor) are in their ond tongue called sume (pho sem+h), ur same-luts, in Which we find the same ront as in the Finmish snom-latsset and in the Exthonian som-fesse. The worl Lapl is
 menaing to flit, to move from place to flace. and from time immemorial the haples hase livel a nonatio life. They belones to the Lapporian sublivision of the Cgro-Finnie gronp of the great Turanian family. Many Lapls laving abmoned their nomadic life and taken to fishing and stock-raising, thas adouting more or less civilized hathits of life, scholare are in tha habit of dividing them inte varions separate graus. Thuc we have monntin Lafice forest Laprs, smidne and river Lamps, but this clatilication is wholly artificial, hased smply on accidental ciremmstances, there heing no fumbimental differences betwern them. To puote E. Torrer, the hap's "aro small of stature, with large head, short neck. smath, gray reddinh eyes, hatir dark brown. beard short, hands lmar, lags thin, abdonen projecting. the rwoult of improper or insuflient
 nemt." Aceording to latzina, the Latp is the most brathycethaturs typr of man in Eurne, perhap in the wartit. The lapp is hopitable. checribul, anil talkative and given to alsking embnters puestions. In his convoriation he is bright and sometimes very sarcastic. IIi moral charmeter, eonsidering his limited kinwlodge, is of a high ammari. Ife is thrifty even to a varice, hit not divhonet. He sedom stand anf indultery is rare. Formerly the Lapp burind his
 pats his sarings in a bank or lomis it on interest. Ahnt P0.000 Lapls are fonn! in Nomay, 7.000 in Sweden, ant :, 6011 in Finland and linssia. Tha true representalite of the race are the momation fore hapr, when-ubist on the remdeer. and follow then to the cuat w the interior. arcurting to the manom, in seareh of rimber-mmos. of the
 These momals snffer haridshigs which it wombe impus-ible for "ivilized man to endare. "llacy live with their mindere day and night, and utilize every part of that ammat. The blond. meat, marrow, ame entrails armall catem. The - in is
 tom sewing. The motlers and home are male inta all himbs of homsehold utemils and intu umanent - Wlatt can mit be monverted into fara or whine tom themolom in either
 ing the reimber, or manufatural intu ella, Joy the sile of meat. Skins, and ghe. they are aho th how clath, salt, roffere, and tuhater). "The whmen la their fall shate of work


 frequenty sleeps with bunther coserine than the rhmw. into















 the wher hand it han the dail manter, like the (ireck and





















 "allad fition limere and in it we are fold how the som of the sun latinat of at ghlden lam in farthest north, and Hin in witrol of it. Ha sails on matil smand moon are

 Lir fill- in here with the straner. She heljes him with her funaro of surery, and he carries her off tugether with a taben of ghan stomes. After the som of the sun has departal with his trasures, the brothers of the princess refurn hom. and at a, hemin pursat of the fugitives. By wheheratt aritu the prinese pronders a violent storm for the shipe of hor buthers. Thus she and hor lower eseape, and whol the whe riw the giant brothers are turned into

 shm of linsitns amb in it-main matlines reminds us of the
 that thice and many lyric J"me were known ly heart by
 hirth. He hat commined parte of them to writing. and - aretly hafore his death her dietatent them to the celebrated

 alor al中"ared in a Cieman tramatim. Lieder der Lappen



Bythotuy. - The Swedus hegan to gather muturials for a

 therip taditions themedres, wir jufamation on this subjeet is rather hathentary, but we have atheiont hata to show that tha lappiol religion ansisted in a pursomifieation of














of thander. lat now maning simply and. In Somthern
 and as such he was not only the gox uf thander and light ning, the lattor hoine atiory arow which he shat frome the
 sons amd over the woes and wals of the latpes generally.
 putirely naturalizon and andapen to his lappioh lionmo. There were also a latge number of lessor divinitios cormespobling to the bymphe of the Greels ind to the elves amd nisses of the Surselmen, and stapused to hatre thar alowhes within varime ohgeects, whese guardian pirits thery wore.

 likn enlor olstained from its lank. amd in this tree dwelt it spirit callend Loip almai (the alder-mana). [plurat] Le'ip olanek. for there were many ul them. There were wind and water
 protected the seas river, and partienaraly the watortalls.
 rery enmplieated myth. Medrotetjp learth or gheronitoms)
 whose abole was in the mildeair. Whon thin par eratm? a soul, Mutler-atje took it ints his helly, which was always open for this purpses and cireled through the smatheans


 row). Who was the ermadian girit of the hanters. If tha soul waz to be al dararhter. Mubler-aklet put it within heo other threntrial daurhtar Sierahku (the mother of eratation), the gnardian spinit of womenn. Juks-alian and bor-ulidat gave the sonls the first marks of gemder, and then transmitted them to the women. who were to wive them fuysual birth. This process of anderation aphins to imath meti and animals. There was a third haughter, flow-uklou the donsmother), who renided near the dour of the njulle, we tent, and who protectel the chihl alter it was bom, am? mande it stronit and healthy. These ahous were zoalonely wornhipud with prayers aml sacrifices. Thme a little milk was always thrown ont of the door at meal-time in moter 10 win the fiavor of the Chiseth\%e. This strallge myth of getaration is fount only : moner the Lallys.

Lapmish mythology teaches a life hermifter bat in all respeets like that before death. Itence the dean wore buriod with their pulks, inplements, and ormaments, and the graves wrere earefally protected with heajes of stones. 'lhe drand had their tents and mindetr aml patures in subterrancan regions. The hathen Lapus imnersed their ehildian in Water when they named them. The mothers somatimes dreamel before their confinement, which ghast from the realm of the deat (sucto) was to rise again in the child, but usually this had to be learmet by means of surcery. Sometimes a chill was immersed several times, and the name changed as many times, as the chillis illuss or misfortune would leak to the conclusion that the wrong satiou or jabmet hatl heen ehoston. Lappuish mythology has no place for evil gombs 'lhere is no dualism. The divinities are all beneficent, while they hate human attribntes and
 ant mishapamong men. To apmase the muls the Lapps offeren sucrifices consisting ehibfy of a piece of meat or cheese, a little milk, a piece of roindmer autler, ete. on important oecasions they misht satorifice a whole rainders: A reliable work on Lappish mytholugy is Lappish Mythompi Erentyr og Folkesegn, by J. A. Frim, phblished in Christiania in 18 - 1 .

Bhbliography:-The most thorough amd comprehensive works on Lapland are Lerpyhend orh Latpourne (18i:B), ly
 Finmarken (1stbo), by N. V. Sturlitleth. Von büluens work,
 a list of more than 200 writurs on Laplatat amd labluish subjects. From this uxtemsive literatura the loulowing inay be seleated as the most imumertant: P'. llörst mim, Beskrifming
 Leem, Beskrivelsw orer Fimmarlown Latuper (176i); C., von




 J. A. Friis, Rusaisch Letphud (in Petermann's Jithuilnn-






 below lbarmo Aytes, with whinh it is contawtal hy ralway











 mittiner verseln of ?1 fut dranght, and with anmple wharves


 servators. cathedral. provincial college. ne. fine farks anm





La Plata River: Sue l'lata, Rionela.
La Plata, [nited Jrovinces ot: tho nftejal name until lsbo of the irgentin litamblic. Horime a pattion of this time it included [rusury: later tha strifi- af the fonder-



La Porle: city: capital of Iat !ortern., Tmi. (fur bation



 platean on the edont of a rich praitio. amb nosar it is a chain of seven beantifulakes. on which ate fonr p"pular summar
 quantitice of ice ore cut un the lakes ant shipynd tor fhi-



 tal of sitho, toon, 2 private hanks, and a daily and \& werkly


## Jimtor uf " llerahib."



 of Wiaturdon, the county-seat, 40 miles $N$. W. of l'enlar liapids. It is in an asrienltural recrion, ambl has mannfatores of thour, carragas. and wagomo, aml a weekly newnater.


 tary viluation, and servod in the latev eampalimn of the seven Years* war, lut devotm all his lequme lames tathes -thly of the (areek language and literatume, am] [mbliohen
 the Mymme of I 'allimachus. From 1Tite to lisk lee gexibul in homen and having revoived admittance to 1 lat Vatisan Lilmary. Which at that time was crumpally clased [u formign-


 among other thinge the lutters of l'ule lumernt lll., wete


 tioned a new folition ot lirumoy, Lap theitmp dos firecs. at

































A．（i．（＇x：101：1，1）．



 cumblan prowhent．



























 ary at the farm of the makiate of



















 F゙．ふlurges dibiv．








 der bat of that．and lomer half of tail atre white；some of




 lined with atow aras－obillis：the eress aro four in number，

 malawor to dibert attention from it hy fluttering abont as if injured．

1．A．Lucas．
Lat＇：＂its of tha prowine of Jaristan，Persia； 60 miles
 Poberet with palm－1ress and at the foot of a monntain range
 thriviner city．hat much of it is now in rubus．It is famous for it－fobacon．canmls，and fop its mamatactures of sword－
 the mar of the eity is crownel hy the ruins of a castle once


Lallat latreat one of the mothwastern states of Vene－
 lwon ドiloon，（iarilnolo，Zamora，las Andes，and Zalia， with unly ahoul $0^{0}$ miles of wast un the Caribluan Sea，

 unital to Tumats by rail．The surface is monntathous in





## l｜erbert 11．simith．

 ＂apital wh dhani（an．Wh．（for lantion al comoty，see map）





 the surpla waldr inta the rival：miles from the eity，and














which rise in the Medicine JBw Moumains, and flow N. E. . skirting on that E. the phanis of the suma namm. It entors the Nouth Fork of the Platte at Furt lalrimie, and is mam used for flosting lumber from the monntans.

 and above inta frombewater Thertary tarates. It werum



 erosiom. The rucke are mosily light-zellow sumbleno with shaty havers. and hame a thations when themsitel wt ahome
 which intiente many chathere in the comblition of detmottion, tugether with land panto. the bones of - mall land man-
 been found. Viluthle bets of coal oxeur in this grould es-

 the same pericul. Thestratioraphicjusition of the lamambe has been the suloject of loner lisension, a summary of whieh. together with references to the literature, is given lys C. A.


## 1-raELC. Ratsell.

Iaramie Mombains : a range rising at the lied Buttes. near the Sweetwatar river, Wyominus, amd extembime in a eurve sonthward to the Arkansas river, near I angr's l'eak in Colorado, forminer a wall which cleses in the laramie Plains to the N. E. and E. It is comporen on a nuelents of real syenite. With marains of fusaliferous formatinn, (inhoniferous, Triassic. Jurassic. Cretareons, ind in shme platers lignite Tertiary, the beds inmlining from a central axis at ditferent angrles. This ranere is commected with the Bier Horn Mountains and [3ark Itill by low anticlinalsextenting across the prairie. the most congulete and beantiful to be fomed in the Rocky Dumntain manin. The nmmerons branches of the Platte rise in this randre of whinh the prineipal summit is laramie Patk. Cobll has been found in considerable quantitics.

## Larash, or Latrache: sime Fl Aratwhe

Lareeny [by analomy uf burglary. folony, anel words in $-y$, from eirlier lursom, from (). Fr. lurrecin $>$ Fr, lurein $<$ Lat. latroriniam, robbery: derive of latro, hired servant, robber. (é. Gr. גátos. hímed survant]: the taking and removing by tresples of persumal progerey, knowing that it belones to another, and for the purpuse of deprivine him of such property. It was a felony at commum law, and, if the ralue of the property stulen excembed twelse pores, the punishment was death. Thisexcessive prathy accounts in part for the ahombant teehnicalities and subtle distinctioms in the law of lareeny. for it indmeed in the judas a dreater anxiety to sare haman lifetham to be lorical. Thly jesmonal goors are subjects of larcony. Injuries to realty, or angthing satcoring thereof, mat constitute a treaplase, but not theft. This ismainly attributable to the fise that while the eommon-law rules on this subjeet were forminer, real property was in small danger inm thieves, as it consista? chietly in lames and ciatles. The doctrine was made to yithl extraorlinary results. Deems uf hamb, amblew the chests in which they were kept, were dommed to saror so math of the realty as to haveno value apart from it, and therefore not to be subjects of larceny. Even where trees, or growinar grass or grain, or preemus metals, or Fixtrees (ifoc.) had been wrongfully severed and foloniomsly rarried awny. it was helt that the offense was a trevaico aml not the the unless the severance and the remoral were diatinet transactions. It whe time it was hought that at lant mac may mast interrene betwem them, on the themy that the las would not take notice of the traction of at lay: but this riew was discambed. and it was settled that nor partiondar space of time need elapse, prosided that the seretance and
 where a person severod an article from the land athd comsealed it for several hours unt it was consenient for him to carry it orf, it was held that he had not mamontted lareeny: for he had not abandoned the article, nor hat] his pumasolion of it passed to any one atse, and his remomsal of the attiche was but a continiance of the transaction thit began with the severance.

A chase in action (sce Cuose) cunlinot he stalern. The reasoms assigned for this ware that it was mot at chatto : it hat no intrinsic worth; it was nere evidence of walle; it derised
all its inportance from thas relation it lowe to sumething









Whly thase wattels ean he whan in whirla suother thata


 mitterl of will amimals while living. malent they have hern brourht wathin the juwer and dominima of abother than the taker. Eran when redheed to privatu womednip. if they







 fint horse turned it ofer to a servint. Who was to kill and bury it. "Thus ser'ant owh it to a damer for liss, and the contit hed there wan no lareeny.

Tationg and Remonel.-The" thief mast take the property intu his physical paskesson and rontrol. hat the lengeth of time during which lee rotains it is imamaterial. Ile mast remove it, hut not to any pereribnd distance. It is not a taking and removal to set a bater of eman on end, nor to turn a harrel over, probaratary turarrymo it away. In such
 thicts control of a mat which he mizes and carries the lenerth of a chain thail fastens it to the owners premises:
 althomerh instantly dispasessed of it, the taking amel removal are complete It is mot necessury that the the fo shond ingas the froperty. Enticement, or tricti or the ageney of all innocent thimi party, may take the phae of fomblle prelaension: but it is mot larceny to shont amul kill another"s amimal, where the wromedome leaves it mmisturbed aftur its foll.

In Englamel, by a fotion of law, a the is irnilty of taking the bupmerty in cevery comuty thromeh which he carries it, and therefore may be imbicted fur larceny tharent in either connty. If the theft was committed on the hish sens, or in a foreign conntry, no sunh fiction is imblalent in: the only
 the courts has beld, and in others the statutes detelare, that a thicf who tringe jnto the stata property that he has stolen mbewhere in wnilty of at new fakine ani\} romoval in such
 tho fulony mammots to it new cipetion antl aspurtation. other States forlow the Fagliall rule, and reject the inea of anew consurntional takines.

Trexpmes. - At common law there can he no Jareeny withwit al takiner and reanmal hy trexpas lat aphying this doetrine the conarts expericnced meat diflomaty, and restrted to distinetions that were mans subtle than seltisfitutory.


 hailor. for the premexim is in him at the time of takine. If prior to tha consmanom lue dues an ant which terminates the hailment, thern hif taking maty be thaminns. A hailme who breaks halk in eancerting the jernurty to his own we eomm-
 teriur casime of the gomis, lut mot of the games thamblues: but the rube has heen anplicd to hailmonts wheve the enerls


 rim of the dilficulties that mieht ariee in thar can of a
 of which. when intramtal, had baen containen in whe lulk."


 if the taking ama remmsal wean while the promery is in

 tho latter. ami matien away with it hefore his return. he is mot guilty of hareny, for the matater hat mon anduited fos-

 telt, and father






 13, M:~.1.4.













 -rat may lo. imathe if whanelle atrick. What lwo ir



















 is met larrentin-
















 cat timy






















 if the popery wa it wethe pence of les the crime was
 lather ly tine and impramment. Moden atates have in

 and in all they hasse taknothin crime nut of the caterory of "apital , floms. The comman law alod dist inguished sim-





 hoildine.

 tatutes. Blany of the ablie dintinetions established by the



 with andual have helomine to the mans Larix. The Letrit ouropea, called sonteh lareh in the C. S. is not a


 taimel fom the "harmel trume of this tre as is Briancon mama in Franm. The llimalaya larell is Letrix grifillsio.

Laroom, Lav: put : hat beverly. Mase, in 1826. She was a mill-girl al Lownll. Mase, and iftorwarl a teacher in
 oner Tonng Folliss a probideal publi-had in buston. Among hur lahlicitions are ships in the Mist (Boston. 1859) : Wild

 colition if her pertical works wac phlinhed in 1885. D. in Butha, IIr. 15, 1493.

Lhevised bin II. A. Beers.
Lamd M. Fing. lerd. from II. Fr. lerl < Lat, lardum,




 moreq is chtainal frem the entire fat of the animal: the








 of searime ath pathitime the former. wallol hard oil, heing u-w for howiontur mathiner am for illamination, while
 Cantio. 'The maturature of lard is an impertant part of








used. Lard oil is exparted from the L. S. in immense quantitis, chiefly to France, where it is largely used for the adulteration of olive oil. Lated ail is often mixed with es per eent, of rosin. the latter suhtance lomming an achl wheh proteets the ofene from its tembency tor randity when ex-
 nation. The melting-point of pure lard varie from is to $87^{\circ} \mathrm{F}$.

 1817: remanded in his college of which he was fur a time chaplain, until 1 end, amd received many homer, montly for excellenee in mathematies and physies: athmoned the

 in the [. S., and afterward in l'aris. 1), at Xaples. Apr on, 15.5!. The greatest of his works was the C'abinet ('ychophtite in 134 vols., 12110 ( $18: 30-44$ ), compused of a series of trattises. partly written ly himself; he also protueed an Alyebraic (ieometry (1803): a work on Calculus (1525): on the

 $56)$; and other works.

Lardier, Nathaniel, D. D.: clergyman; b, at the Hall House, Hawkhurst, kent, Encland, Hune 6, 1684: stadied at Utrecht and Levden 1699-1703; was a private tutor; bectme assistant to his father: was from 1009 to 1051 assistant minister in the Prestyterian meeting-honse in lown Jewry lame, Crutehed Friars, dondon. He became partally theaf in 1723, and after 18.53 cond hear nothing. I. at the Hall llouse, Hawkhurst. Sunday. July 24, 176s. He is ehiefly rememberes as author of The Credibility of the crospel Mistory ( 14 vols, $1202-50$ ). first delivered as a series of lectures at the Old Jewry, and still a standard work. As a supplement he iswed a similar work on the apostles (3) vols.o lian-5i). Other less known but impurtant works are Letter on the Logos (1509, distinctly Socinian), a work which cunverted Irriestley; Jewish and Meathen Testimonies to the Truth of the Christian heligion (1764-67, 4 wols.) : a Ilistory of
 Works with bigeraphy by A. Kippis (11 vols.. London, 1788; reprinted 5 vols, $1 \times 15$ : 10 yols., 1829 ; 10 vols., 1838$)$.

Lare'do: city; capital of Webls co. Tex. (for location of comenty, see map of 'Texas, ref. 7 -(i) ; on the lio Crmande river, and the Int, and (it. N., the Mex. Nat, and the Lion G. and Eagle Pass railways: omposite Enevo haredo, Mexien, with which it is cmmerted by two steel bringes: 1.53 miles W, of san Antonio. It is in the lio Gramde coal reginn ; has an import and export trade with Mexien, averaring $\$ 12,-$ 000,000 anmally ; is abunt 18 sf . miles in corporate area; has an assessed property vatuation of over so.500.000, and city property valued at over Sonnom; isnes 3 daily and 3 weekly nowspapers : and has a national bank with capital of $\$ 120,000$, amd a private hank. It was set ted by spaniards as a frontier town of Maxico, and on the annesation of Texas to the U. S. many of the Mexican inhabitants moved across the river and fombed Nowo Lareto. Iop. (15s0) $3,521$; ( $18: 0) 11.319$.

Editor of "Times."
La'res [ = Latl., phur. of lar, kind of tuteliny spinit]: in tha religion of ancient liome, tutelary spirits or deities, 'The laress fumiliares were the protecting spirits of the honsehold, but whether they were oriminally thonght of as gends of the fitelds (and hence of the house and family of the lioman citizen as the possessor of landed property) or as the spirits of departed members of the homshold it is impmssible to thetermine; that it is certain that the latter winw came ultimately to presail. The lares were the homselohd gols par errellence, to whom brayers and sacrifices ware affered at the daily meals, ind to irhom more expectial pifts were presented on enrtain feat-thys, partieularly the kaldols of each month. In every homehold calebration of foy or sorrow, however insigniticant or impertant. the larns were remembered, and the dependence of the welfare of the family upon their faror recognized. Besites the homsabald lares there were the lues compitales (of the erosspands an streats), which in a certain sense may be called the public lares since their worship, was a matter of state concern, at beat since the ir restoration by Aurustus. The relation of the lares compitules to the communty or district sumpunding any burticular shrine was praetieally only an extention of the relation of the household lares to the members of the familys. so, for instance, the young wife offered sacrifiee of an as to the lares compitales of the new district in which her hus-
hamb's home lay, as well as the thate of her now home itselt. Along with the resturation of many anement religious
 dugntus, and to their wombe was joinol the wromip of
 tributed mast to the preservation of the memen' of the firet emperer in the mimls of the fotples. The lare wore usually reprisented as yonthful dirure will high-rirt tugas, hulding equs or hums in their hamls. Sur l'relles. Ifön,
 lin. 18(i) ).

 and the longest in print of daratinn. Tha mon fomerly in we were in the orter of their revertion time-valuse the large, the lomge the beve, and the smimpete. They were commonly written thus:
Lary. Loth. Brepr, Smilncte.

The redative duration of these notes was, theoretirally consilered, equivalent in promention to 8,4 , 只: and 1 , the large being equal in time to two longs. or four heres. os right semilireves: the long, to two hreves or fome stmitmeves: and the breve, to two seminteres. It may be considered certain. however, that these ratios wer not rery acourately olserven in the practice of masic, hat were requmed mbly as anoximate momsures of shomess or rapility, subject always to such variations and irregularitios as nimht take rise from the ferlings of the perfomer. or (in woral music) from the accentuation. purpert and propr espremin of the words. The actual length of time romesented hy each of these ancient notes wats also much hess than wimh be inferred from the names of the first twa, which sugerest: a highly prolonged duration. It will he observed that while in modim masie the hreve is the lopgest mate in use, yet in ancient music its duration was short, as indicated ly its name and by comparisom with the large and the lomg, A mote sweh as the large, equal in longth to fon brever, cight remitmoses, ar sixtecn minims. wonld, of conse, be impacticable if the old time-table were not essentially ditferent from mur own as a measure of rapidity. Simme bilea of the rate or spmel of the old notation may frobatly he lurived from the hearing of Gregorian music as still in use in the ('hareh of Lanme, Where the moke and velocity of chanting, as hankell bown ly tradition, may be taken as andichnthy correct repesentation of the time-value of the ancinat nite. Indurim by
 womla at the longed, be mly equivalont to nur ment here. semilreve, minim, and crotelnet : while this relative jumprtion might probably he still botter repromed hy war sembhreve minim, crotchet, and quarer. $l_{11}$ the almence of any brative rule for the transation of andent motes into their equivalents mater the monern syotem, tha but common minde follown liy masicians is to rember the lemer by at semilore the breve liy a minim, and the amibreve a atotede as in the example following:

$$
\begin{aligned}
& \text { Ancient. EA - } \\
& \text { frowl Lowd, di- - lis - ir wis } \\
& \text { Modern. } \frac{f(x)=-}{=}=\square
\end{aligned}
$$

sec Notation.
Revined by lophey Buck.
Lar'ide [Mon]. Lat., liter., thme lemburing the the qualt

 phar. of -ioms. descemded from]: a family of birts ili-tin-
 cannlately webued betwer the hare antmin thes. hallox ir fonaterior the radimentary (and firn) an abolute, and wins elobgaten and pointen, The fanily mubameseretal well-maked minow wrapls. distingui-lud his mat rownt


 distinguishad from earlo other hat the tirt two and last two are entranted with carhatier, the jamora and gulls on one hamd being chowly alliend. and on the other the tarns and akimmors. A Moniogrephe of the Sorth A faterict Laridee whe phblished liy lor. E. Cobes in his berls of the Torthurest (1854). See also G(LLL.
F. A. lecas.









 La：1．











 1hいま。


## Jatix：－．．．lanimb．






































 Vi，A．（i．
















 phblinhad barmus artieles upen art and elneation．

James Mercur．
La Rumbe，M wat Sophe（mon fintomemen）：anthor：b．at






 in hu！with thathe－damohiner Maximiliane，who atterward marrial a meq－lam of framkfort，am who was the mother



 mont impntant prouns in Coman literary life．She at－
 numb atr now entirely forgothen．1）．in Oflentarh，Feb． 1ヶ，1～いに。

Jolites Goebril．






 baninhod ham from l＇atis．On the cambinal＇s death lie hoped
 jointel thw lamlere of tha l＇rombe．Ifter jts suppression





























rery rolnminous writer on hiffrent social topies，but his name is best known as that of a wrat pactical phatanthon－ pist．The establishol the first mond farm in France intro－
 try and art，which derelnewd into the redethated Exole de
 instruction into use，and estahlishad the tirst savings－hamh in france．
lieviad hy A．G．Castomb．
La Rochejaguelein，latrixh＝hatiant（the wame of an
 GER，Count de：bu at the ohathat of la bumbelitere in Van－
 hecame one of the ablest of the royalint leaters，and wn the death of deseure wat ehosen to the chiof command．La Rovhejaquelein i＝than molest peramifieation of those roy－ alists wha thought－incerely that whly the return of France to the legitimist monarehy conlal wite the country peave
 Conrention arommd Iutrain，amb ocempibel he Mans，La Fleche，Laval，and other cities．hat was＂phomat hy vally superior forces．and cond mot rotain his abluantares．Ile was killed at the battle of Nomalle．near Chollet．Nar． 4. 17：94．－Uis brother，Lotos me Verier，Marquis de，b．in 1r77．was a general in the last Vmolean war having per－ sisted in his loyalty to the bumbmate in pite of Napmeons attempts to win him ober．Ite wat phated by Louis Stll． in command of the army in ha Fendee，and dininer the Flundred Days mantaincel the kiners eanse in that region． He fell in battle near sto－（illles．Jime $4,1 \leq 15 .-1 l$ is wifluw，
 the War in Lat Vendee（Bominux．！th el．1ssi），which are ot value to the historian of this perionl．－IIis son，llewri de lat Rocufdagcelens，gave upt the ultra－haritimint opinions of the family，rallied to the inmurial regime，was mate a scma－ tor by Napoleon HI．．and dial in lvai．－llis som．howevor． Juliex Marie Ga－tun de Vlreier me la hon＇hedaqueleis，
 ditions of his tamily．He wat eleeted to the Xistional ．Is－ sembly of 18：1．athil has hoon aryetal times a monarrehist

La Rochelle．las＋roshel ：town of France：capital of the department of Chamente－Infrimume：on an inlet of the Atlantic formed by the two inlamb he abl oleron（see mal） of France，ref．6－C＇）．It is fortified，well luilt，with hand－ some streets and many fono bulalines，and has a large．olecp．
 extensive manufactures of intas．eathenware，fon and cont per wares，sasar，and bramby，ami considerable trade in wine． corn，and colonial prombits．In the sixteonth and soven－ teenth centuries it was the strongladal of the llugnemots， and played a very conspicanas part during the religions wars．It was one of the fro cities grantad to the llugue－ nots by the Ellict of Santes（15as），but upon the renewal of the war in Lonis XIII．＇s roiern it fell intu the hames of Riche－ lieu after a loner sies：（16きら），and its losedestroyed all power of effective resistance on the part of the llagionots．Pnp． （1891） $23,46 \%$

F．M．Colbr：
Laronsse，lắroos＇．Pierra：laxiengrapher and enefoln－ pedist；1）．at＇Toncy，Vomur，France，Oct．23，1817；heqan to be known as partner of Borer，a celehraterl Pario palimher of books for primary ellucation．Many of these bonks are used in Freneh schools，and were written by I aronsec him－ self．In 1863 he ennceived the indea of his miversal iliction－
 roumling himself with the hest writers．The work was published by subseription，and had an immense sucross． thongh it slowly appeared in mmall frasricules in a pamphlet form of about fifty pares each．＂aronsee vexhanstrel his
 leaving his enesclopmilat the letter ．W．The work was． however，completed，and hat no rival in France．＇lhe tone of it is anti－classical．

 Paris：was Profeseot of Plabosophy at the Collage of Tom－ lonse 1784－1：90；made profess int la，lyce Lomiz XIV．in 1795，and in 1811 proferoor in the Fociltr of hettere in Paris．He was a member of tha hombemy ot Maral somences． Ilis greatest work is Lecons de lhitusuphie（i）vul－．．in $1.5-$ 18）． J．M． 1 B ．
Larra，laa răh，Jost́ Mariavo，de：satirist amd eritie： 1 ． in Madriel，spain．Mar．2t，1409；died hy his own hathi in
 cortain！of hic gmadnetions tull int＂，the hamle of livilurat
















 Wh America．

A．li．Marsil．



 some maknown rasoblanamad the abame ut his mother， Manmela de Larramemti．Ilo stmand at Bilham，Deceante a Jesuit．and was l＇rofessor of Philosinhy and＇Thoologey she




 llis theories with reaterl to this ate mos of thent exploded． lat the impalse wiven hy him to the invertisation of the





 tian for lbe． 30,1 Ean，entirely desoted to Isarammendi，in commenmmation of the bi－centemary of his hinth．

1．li．Marsh．



 er，Charles Frameds llilate Lamer．N．1）．（1：5t－141！ able surgen and writur，also Wa＊thaimel．＇The yonnger Latrey went in 17s：to Paris；pateded tha navy ：butarma

 was madn surpon－in－chice：arrad in Eiryt．（iermans Spain，eberybere displaying the eramowt marage and fer－ fect derotion to the comfurt and bualdh of thas trons，and especially to the woumed．whether frients－u enemies：was matle a baton on the field ot Whatan 1－bta；was wounded at Ansuerlitz amb Waterlan；mande numerons andexcembing－ ly important improvements in＂中＂ratirn and colinical sur－ gory amd mate important obsurations in meneral medicine
 moires de mpdirine of de chorurgiw milituire： Ilinique chi－ rurgicale．See the biography ly Wruer（1scos）．

Lat＇va［from Lat．luerto，mak，also ghwt，specter，skele－
 pecially invertmbates．in which the romag after jsumen from the erger are very different from the alnltio．and under－

 of the sountr masks of eomeath that of thw indult．The mast arot is the laryat of the fly the catorpillai the larva of the hat torlly we moth，the zenat is the larva of the wah，wal the tarlpule the larsa of the from．sie loxtosumat．

F．1．Luras．

 anmal retams thromeront life the tail whish ity ather tuni－
 briady demeriled as tadjule－like forms，in whith the tail is

 carry abont with them．－All arr marime and almon micro－ soopie in size．


| ：t |
| :---: |
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Throme hermentox，whith masy dowhor fam the acate






 …＂．：and anly lay thin intmment．The treatment mast
 phed the the atequal rath，There is an exemption to this


 －anm Comilatace enre by lobal romodies．It may be said that in larymitis fhmaica of longe duration all local treat－
 －haner of dimate will do more than can lne atomplished lys suly tratmont．

F．Forchimemer．
 an indrumpot propomand in prith introluced by hobert
 hictime：lat arently improted and firat systematically used

 the ation of the went comblaring phantion．It emsists＇ of 1 wo mirmere：the larser one，cometve，throws light upon the shallow，which is hoh in the thront of the patient and illaminates the interior of the larynx，at the same present－ ing a feverad inime uf the ghtitio，woral eords，and sur－ rumbling parts．The larymenpe is of great value in treat－ iner lomal dismay of the throat．
 b＂י pirt of the windpipe ：the haman organ which pro－ dumenmme．It is situated at the beginning of the wind－ pif＂．is anterd by way of the marym，and therefore com－ munioates with the inge and the threat．Its essential
 it is concred on the out onle hy the kim，and lined within by
 nitme arm for $1 l_{1}$ purpue of giving rigility to the whole， and ato for attachmont of varime pats neat for functional arelyity．The ramiame haye derised their names frem their form：hemo－th－thernil，or sheld－like cartilage：the urimid．w rins－like＂artilase ：the arytmond，or pitcher－like artilase wo：Their whathe townel each other are such








 all the pate of the haryx are on constructed as to have

＇Thon wail rhome ar．twh hande elastie in nature and
 the interin of the larysx，attarel embranty the thy－ rains antilas an ather－idn of the mentian lime amp peste－














 fir the frudaction of abum that the varal chard can be
stretehed and relaxed. The force which throws the vocal chorils into vibration is supplied hy air exprlewl from the lungs. One result, then, of bringing the entire mechanism into play is the throwing of the vocal chomes inturemblar vibration, whoh, moler the eiremmatamees, prentures sumat.

The three chalities of smam, pitch, clams-tint, and quantity can all be fromberd by the larynx abone. Piteh in groduced by the tension and broximity of the chome chans. tint by their feculiar imbivinal shaje and the shapu and size of the larynx and alliteent cavities, and phantity by the force of the expelled air actine mom the larymx.
 tenor, or bass depmols matirely upn the -ize ams furn of rocal chord, and the -izw. shape, inm configuration of the baryns. The range of voine-i. e. the nomber of motes that can be sounded-aloo dopends unon the factors, but largely
 do much in extending the number of antes which ean be sung by the indivilual. During respiration the orlottis be comes wibe with insparation and narrower with expiration hence the dibiculty in froluring somme while breathang in air, and the ease with which phonation is acomplinhed in expiration. The mumbles which control the reybiratory movements of the oflotis are emtrolled by morves onmected with the respiratory center, and as a lessilt all these movements are synchronom-

The munons membrane of the laryns in vory spositive in plates. buing endowed with a great mumber if morvermi. ings, and ads as arotecom to the remainder of the lexs piratory trate duriner respiration. Inring normal respirat tion the air fir-t pasose through the nose where the limst warning of impurity is criven the imelivilual, il givon at all, then through the pharynx and larynx, where the next waming takes phace. As a result of this nervons medhanism, very irritating substances, if fimely divinderl, moxla+e attack of coushins, lamer bulies probluce spasmombe montrations (commonly ealled swallowing the wroner wily) amd it is only by a very unfortmate train of circumataners that hempes can fatso the faryns and enter the brenchi, promeing very dangerons eombitions.

The dismases of the larynx may ho classified unum an anatomiend basis. There may therefore be diseases aflecting all the tiswes, or diseases athecting one or mores. Nalignant tumors, cancers, and saremmata beloner to the first clas, while the second class is subdivided into diseases of tha cartilages, of the muceles, of the macous membrame, of the nerves, and finally of the nerve centers controlling those nerves. As most of the dispases affeoting the larynx are carriel to it by the air in its passage throurh it. the most common form of larwieal disease is that whide affeets the mucons membrane. Inhatations of various pasoms, of lowed forms of life, or of irritat ing sulstances will jronloce inflammatory elanges in the mucoms membranf. Neither is it meommon to find benisn tumors in the laryns, which, when reengmized, dan be readily removed by skillful hambs. In the larynoscope we have an instrament by means of which every bart of the laryns is mate acomoshle the thes. It is just as ille to treat a diseased laryox without lookiner at it as to treat a sore finser without examining it. The laryngosenpe has marle elear the subuet of larbmgeal disease and much is lone in laily practice which womd have seened miraculous years atro.
F. Forchneimiz.

La Salle : eity : La salle en., Ill. (for location of comity, see map of Illimis, ref. $3-\mathrm{E}$ ) ; on the Illimis river, the 1 lifinois and Nichigan Canal, and the Chi., Burl, and Q.. the ©hi., Rock Is. and Pac, ant the 111. Cent. railwas: ! 19 miles S. W, of Chiearo. It is in an extensive and prifitalate bituminous coal rerion, at the head of river mavigation. It contains sureral zinc-smelting works, manufambere phass and hylrantic cemont. and ships ammally to southern mar kets a large grantity of iere. The eity is connected with l'rin.



La Salla, hesé Robert Chalier. Sieur de: exploper: b. at Rouen, Firmee, in 164: berame a Tennit, but, renouncing his professiom, embarked for Camata in 1666, and obtainet a grant of territury at the heal of the rannils in the St. Lawrence river above Montreal, where he semme to have intended to live as a resident spignour, hut, attracted ty the reports of some Senca Indians visiting his post in the winter of $1668-69$, he set out in search of a great waterway which was thought to leall to the South seat and uffur a route to China. He explored Lake (mario, and reathed the








 phant a colony at the month of the Xinsinilym, hot failend to reach this point, amt landed tarly in loing wh the mate of





 to forty-five. lativine twenty of these lohimd. Lat sallo made a hhird attrmat, in the canrer of which he wit murdered by his companions meal the 'Trinity riser about tha
 lumeded, and mothing was ever harat of the faw colonimatrit

 and L'arkman's Mistory of the Heseonery of tha Mirent II"pat.
F. II. ('ar,By.

Lascaris: the mame of twodi-timerni*het Grepkerammari-
 Italy after the fall of (omstantmonde (tion and contributed greatly to the suldy of (irenk in laty and France. Cos-
 the tutur of the lolinere lypalital Sforat of Milan. 'lhere.

 1506. Ilis famoms (ireck gramman (Ememule) with the
 lived for a lomer time at then enury of lamenzo di Nedici in


 Jed X. (1) take charge ul a (irenk institute. 1]e rivisited
 fommend the liosal library. Thereatior he lival for atime in Vendee till recalled to home by Pone I'anl lll.. Where lar





Lascars: an Anglo-lndian mame apllied to non-catmbatant native malo followers of the amb in lmila, and also to native seatringe crew on liritish ships.

## Las Casas, bartulomé, de: Soe ("Asas.

 Marie Jonemf. Marquis de: writul of mamoirs: b. at Las
 grated in fobl: sorved fur sume timo in the amme of the Prines of "ande; later on lised in Tambon, where he pals



 whirla he sobor firely ot the mamer in which Napmeth was treaten, callon! him to he arrested amd transferrad to that



 which Najulem had made tu him in their conbersations J. at 1any, hay fo, 184?

## La Nerena, Chili : Sue Cogremmo.
























































































 that whtherpital fumbinal hy the -tate. For this purpose




 the "aron law of was. " pontinally tonding to roduce the





 trathe bey blahme Marx Aveling. Lombon, 140:3).

## Revised liy F', M. Colby.






















 frik on the whomatory inchang the great Government











1). E. Hervey.



I.anobn. Atmit.|'l. 1).: metapheirian: Is. in Alt-Strelitz-






1871): System dpr Reqhtsputhosmohe (Burlin, 1s-Q): Zoitliches und Zritlows (Lin'zig. 1s91). J. II. B.
 in Paris, Mar. 1! $1 \times 0 \mathrm{a}$ : jupil of H. Lahrmate aml Ladnas. He was anpleyed unm sworal injurtant laris milhines, amb, as the interes in andiont atructures increaseng apm restorations, suels as that of the saintref hapelle ujemp whirh he was ensared motil his doath. Inconnertim with Vioblot-le-pue he was qival chares of the restoration of Notre
 the eathedrals of 'larties aml La Mins. and to carry ond he builliner of churehes in Dijom, Belleville. St.-- Digmon, amd other towns. The Alhum of Viharl de homemut was prepared fur publication by ham amb phbished after his anath. and the great Gusermment mompraph of the (athealral of Chartres was also in a great measime his work. He wat a member of the lagim of 11 nond, but the teminacy of his teachiners was contrary to thase most in favor, inn! the highest henoms wre not likely to reach him. I). at V'ichy", July 15, 18.5:.
líssell Strkar.
 author: b. at Ramarai, (hili, in 1sir. He was educatent at Santiago, and early became connected with various newspapers. In 1838 he was manel l'rotisor of Common haw and Literature in the National Intitute. After 1843 le was several times elected doputy to Conrress; Minister of Finance 1892-64. and of the Viteriow 1596-78: and was enver to Pera, Argentina, am Brazil ; later he was Minister of thi supreme Court. Lastarria is rine of the most prolifie of Chilian anthros, his works including biogaphy and rritieism, history, descriptions of travel. rivil and enntitutional law, and two nowels: his studies on tho Chilian comstitution and its histnry are especially valualle. Among his hest-known works are Elementos de drrecho públimo constiluciomitl. In erstigaciones sobre la inthencin social dr la C'onquisto. Basquejo historico de lo Coinstitucion, and Misforia constitucimatl de medio siglo. He foumbel the first Chilian literary magazine in 1840, subserquently established others, and aided in the fombdation of several literary societien. IIzrbent 11. Smuth.

La'sms (in Gr. Aâros): son of (habrinus or (aceording to Schneidewin) Charminus: a Greek ditlyyranhie poct imd hymn-writer of Itermions in Argolis: fourished almut 510 a. c. He was a contemporary ani rival of Simonites, and the reputed teacher of Pindity. To him is ascribed the new development of the dillymank, and famous amone his tomers de force was a proem composel without a single sigma (a). Of all his pems, only a fragment of a hym to Demeter remains, which is given in Bergk's Porfe Lyrici fireci.

Las Yegas, has-väghs: city; apital of sam lliguel co. N. MI. (fur location of comety, see map of Xew Jeximo. ref. 10-\$): on the Peen river, and the Atch., Ton. and S. Fé Railroad: 50 miles E. uf Santa Fé. the territorial capital. It is in an agrienltural, stock-raising, amb mining region, and has large johning and woul interents. gas and eloctric lights, street railwar, 2 national hank with cumbinct capital of $\$ 200,000$, and a daily, monthly and 4 weckly nowspapers. Pop. (1sso), not in census, about $1.5 \% 0$ : (1sto 2,385. Loward T. Valle, ser. Comber'ill C'leb.
 a city of Eeumbr, calital of the province of Lem: on the Andean platem ; 56 miles $S$ of Quito and 2.5 miles $S$ E. of the cone of Cotopaxi; $0,38 t$ feet above the seal (see map) of South America, ref: : 3 -lb). It is built on a heantiful plain hetween two small rivers, afluents of the fastaza. The average temperature is 59 F . Latacuigit is the forth city in Ecuator in pophation, but its importance is mainly local: a lurge promortion of the inhathitams ar" Indians. it good carriagerom unites this place with Quitu. The aity was founded in 153.0 . It has suffered grealy from earthquakes, an! was four times dest royed but ween fams and 1 rir. Nitrate of [motis) is obtamed from volcanie depmests in the vicinity. Pop, atoont 12.000.

Herbert ll. simith.
 at Bondaros. France abut 1.54. Ite stadion homanities at Paris and law at Orleans, hat was drawn away to pectry by the works of Ronsard and du Bartaco and iliviled his time hetween letters and arms. How whete two hiblical tragedies. Sumf furipux (1.05) and $L$ Les (inbumites ( 1.521 ), and two eomedios after ltalian monhl-. Le Seqromento ami Les Corrictur ( 1566 ). He was a voluminns writer or vare. D. in 1611. His works have been edited ty Ramé lle Matulte ( 4 rols., Paris, 18:-82).
i. (i. (axpifles.




 envitusare ferth; theirehiof ponhet i- the famm- Lata-
 Christians.
E. A. G.

Latent Heat : sed lieat.
Lateral pressare : the homiontal presime of water,



Lat'eran: the mame of a flaw in lome wernpeine the site of the estates of the andent liman tanily histromus. The two principal huidines in tha phat are the (hureh it

 -rame to death and confonatm his entates fomatheme tha dreat pronted it then thene and it was thanntifal

 he tork m, hiv rowidnop in the Vatican. Having ben thrmed hown unler the reign of Clement X., the Lateran palace was rehuilt in 150 s under sixume V.. hat it manimed

 tiregrianum lateran+ise for antinuities, the Vatican and
 $\therefore$ Giosami in Lateranm, wan fomblel by Ponamane the Grat. werthrown hy an tarthuake in simp, reluilt by ser-


 1:34. For centuries it was the princopal charcha in 'hri-ten-Ahn-ommium whis et orbis verlesiornm mater et caput. Five grat acmmenical cuncil- were hal there.

Lateran Conncils: councils thes callon hatane they were beld in thu Church of St. dohn haturan in home. They
 namely: (1) that consencl hy Catixtns H., and openal Mar. 18, 110: hy which the long strife hetwem the pores and the ferman empers charmine invertiture was embed on the following terms: "I'he empers survenders to tiond. to sis. Peter and Paul, and to the (atholi- ('lumed all rieht of inventiture be ring and staff. . The fun agrea that the efection of Girman prelate - hatl be hall in the pasance

 11:3. by which the anti-fope. Anachetns 1 l ., and all whohat






 wanderminet ujom for the lituration it Patutine from



 ammileth and the concorlat condeluled in 1.56 betwetn
 the foncoil in 1:if. Was sulatitutel for the Pramatic sanction of buarges.

Ravial by I. I. Keave.
La'tos [Mon. Lat.. from fir. 入átos. a fi-h of the Nilm]: name of a genuc of largu proifinu di-luc. of which the type
 name. 'This finh is the largat in the river Nile. In wrows to a bencth of 3 fect, and in uf fine thatur. L. nolifux ix an excellent fonm-fish of the tidal part-of the (iathom.









 Sir S. Lever in forming his mandulaml wit whe of the


1.alho






 hay rempient m the fhather for












 Wheh atatiolat= Jimburv, and 1hes are -till arasainmally mot
 antw vahibited at lhw intom-














 S.allo.

## 










The fand-lathe in lawnil by the font of the workman









 the he:ul wf the lathe at the left. 'Jhas driving-shaft is



 lathe atal party womendend hy that potion of the shiderest


 "(2nfor is shown at the right, mall the back-beat, in which it
 fixal homal. and is chamond by the mat and hamble seen be-

 shall. abll whon in aljustment it is anmped by a smaller The rad wi the lathe andacent lo the divimg-heat is used


 -pintlo lakes itmation from lla pinion all llatt
 and. larmint with Нは

 ration for the way rn tha Mriviner spimuln at the
 bromes tha lisu -nanlo lowhinh it is kerod. Wiall thin ibrathorament

 f1nion farm lowne 1. .1" $1 /$ d driving-- palll. I ratul
 Hiving - Whorl ju thas raturetted in-




driving-spmotle then partakes of the rapin motion of the latter, turning with the higher velocity reguired in working wood and other soft materials.
both the back-gearing and the screw-eutting attanmont are usnathy dispensed with in lathes intrum fur thming wond only. Fige represents a large fat-lather capable of taking pheces 10 inches in diameter and 40 inches lome is mond usual size turns pieces $\mathbf{6}$ or 8 ind hes in dimmetor and abont 2 fort long. The jewoler's lathe, shown in lige B, illustrates this style

A good lathe inust le mable of turning a moly cylindrieal surfare, and of prolucing at perfetly pate face ajom the end of the cylinder, of of any pirce secured in the lat he in such mamer that the face to be finishel shall lie in the transverse plane. These requirements are at tained by skillful design and carefnl fitting. Lathes nsed in serew-rot ting are driven ly an arrangement of belting which permits them to the turned in either direction at pheasure. As the reversal of motion usually oceurs very smbdenly, frictionpulleys, which are not affected by shocks, are gencrally used. Lathes for turning metals are lriven at sperds much less than those adopted in working woot. These sperds are:

| Material. | Feet per minute |
| :---: | :---: |
| Iron, ehilled white east. |  |
| Iron, soft gray. | 15 |
| Steel. | $1{ }^{1 /}$ |
| Irm, wrourht | 20 |
| Brass and bromze | 50-60 |
| Wroul. . | 1,500-4,500 |

In the rose-engine lathe the spinille carring the work is movable, and is vilmated by a guide-wheel ir pattern-wheel turned at a fixed rate of speed, and having an out line which is determined by the shate of the design to be cut. Several wheels being used in succession, intricate and beatiful reometrical combinations are obtained. The lathe is now matule in immense variety of form and often of sreat size. The largest are those "mployed in turning marine engine shafts and in finishing heary ordnance, the limit of size of the latter being at present about 120 tons.
Lathe-tools are usnally of the finest erncible carton ster l The self-hartening steels sometimes employed arm eommonly alloys of iron and chrome, tungsten, or manganese. They permit heavier cuts and higher speeds, and reluce costs of turning very consilerably. 'Tools of chilled cast iron are sometimes used. . . tions: The Lathe and its Lesp; Manuel du Tourneur: Malerials of Engineering (vol, ii.). R. II. Thenston.
Lathrop, George Parsons: author: b, at Oahu, Sand wich islands, Aug. 日. 18.01. He was educuted in New Yonk city and at Iresilen, Germany; was connected editorially with The Altentic Aonthly in 18TM- 77 and with The Boston Courier in 187\%-zo. He married a daughter of Nathaniel Hawthorne, and fullished in $15 i 6$ A Stuly of Ilawthorne, and in 18:9 he took up his residence at The Wiapside, Hawthorne's oll home in Concord, Mass. Of late years he has lived in New York and at New Lomdon, Conn. Among his publications are Rose and Rooftree, verse (1855) ; Aftergtow (1876) ; An Echo of Pession (iss2) : Spmish listus (14s'3); Gettysburg, a Baille Ode (188囚): Would Jou Kill Mim ? (1889) : Dreams and Doys, verse (1892).
H. A. Beers.

Lathrop, Rose (Ilauthorne) : poet; b. at Lenox, Mass, May 20, 1851. A danghter of Nathaniel 1Jawthorne, her childhood was passed mainly in Europe during her father's consulate at Liverpool and his travels on the continent (1853-60). In 1871 she was married to George Parsons Lathrop. She has contributed stories and poems to the magazines, and published a volume of verse, Along the Shore (new ent, 1884).
II. A. Beers.

## Laticif'erons Tissues: See Jistology, Vefetable.

Latil'idx [Morl. Lat., liter., those belmoning to the Latilus tribe: Latilus, the typieal genus (dimin. of Lat. Ia fues.
 from]: a family of fishes of the sub-order Acumthoptri, distinguisher by sub-jngular rentral fins, eath of which has a spine and five branching raps : a more or less elongated houly (the vertebral colmma having more than ten abhominal anil fourteen caudal vertebra), covered with scales, and with the lateral line suthemedian along the tail; an elongatent dorsal fin, of which the spinous purtion is shorter them the salt : and a compressel heal, with at snout truncated or monderately prodinem. Thase are the prineipal dinguostic characters of a gromp of fi-hes which have been varmonsy phacell
ay different maturalits. The speries aro fow, mul rhiefly





Latimer, lham, D. I): hiohn am matyr: b, at Thme
 bat bemans thinks the date shom bo 14 an or 14s. 11 es


 Greek profemor: was orlainal a mint at limmala; becama interented in the prinephes of the lidmonation thrmen the
 heretic by Wulay $15 a^{2}$ : \& 15:30; became rector of Weat Kingran, IVilts, 15:3; Was



 the keeping of the bishen of 'hichenter ; was alterwarl silenced by anthority and shat up in the Tower 15dg-dit de clined his fumer hishorric 15ts: was promber to Elward VI. 1549-in: was imprisonel in the Fown by promanation of Quecn Mary 1533 : transferred to the Bencirlo of Wxfurit, with lithler, 1554: tried and rombemmed horder of (atrhinal loge lians a and burned at the stake with lidiley in the Witch near Baliol Colloge, Oct. 16, 18n. Latimer was one of the most inthential and fermen of the Emelish heform-
 montels of foreible and witty sumed. sie his Lifte by Rew R. Demans (186:).
harvish by W. s. lemry.
Latinchureh; that protion-the Wrestern-of the heman Catholic Charch whinh retains tha us of the datin language in its Church service: s. (eallom torlintinguish it luth from the schismatienl (reet ('hurch aml from that other portion of the Roman (atholic ('hurd whirh nows the (iretk languare in its liturgy. These are callad lnited Grreks and acknowledge the sumemacy of the prow, in the same sonse as thone of the Latin rite: See Bromiar, Theoloyie, in
 tianity ( $1 \times 54$ ); Addis anl Arnold, A Cathotir Dictionary. J. J. Keane.

Latin Empire: the empire formen at Constantinople in 1204 by the erusaders umder bahwin $1 \mathrm{~S}^{\circ}$. Connt of Fhanders. and loniface II., Marjuis of Monterrat. Tuming aside from their oriminal purpose of invating the llaly Land, they interfered in a dynastic parrel in the Batern Empire, and finally placed Baldwin om the throne. 'Jhe rule of the Latins thus established was overthrown in $1: 26$. See Brzantine Empire.
Lati'ni, lant-tee'nee [Lat., liter.., Latins]: originally the name borne by the inhabitants of Lation asmetated in the Latin league. After the disoolution of the leagar in $340 \mathrm{~B} . \mathrm{C}$. and the annexation to Rome of ammber of the communities which had formed it, the name continued to be borme by the former menbers of the leagne which hall mantained the ir matependences and was extended to inhahitants of Italian communities which were granted the same alvantages over the other Roman allies, in their relationtol lome as the members of the Latin league had mjoyed. Thar pasition was a midule one between that of forrigners mal liman citizens thes, for instance, they possessed the sume linsiness and juhicial privileges (rommercium) as the konan eitizen, lout hot the right of intermarriag nom pulition muality. From the Latin eommonities fonmed after the fifth century of the city the Latinus conll he admitted to Roman -itizenship only in case he had held a magistracy in the phare from which he came, while from the original or ohler hatin towns it was only necessary for the individual to ammance hii intention of transerring himself probally at the timp of the
 cipitatem the sercal war, which remlteri, hwever, in the extension of eitizenship to the whale of laly. Fown this time on the privileges which the Latini had njowed ware exthment, undur the same name (ous Latio) the commonitios sut ide of lably, until by the coliet of Caramala in the thime

 15: $1: 3$ )
(i. L. Hexhrmenas.

Latini. Brasetto: writer: b, in Flomene. Italy, lutwen
































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1. P'aleperey $h$





 the hatanas of the Lase lawiar and of the










fi, frothe prome - From the bugming of the bitera-

 on a cantral bume hore tran the loint of vew of the lan-


 calmatry of the hamaner, and adfed to its precision and

 मranth of the tanguta
©. The 'icemmion frmont-From the apmance of



 and hy revalarity ul itham. There was one tixed standard

IS. Pa pient of silmer Letiol.- livenn the death of Augustus
 Chatathat of thi prini is a mathed reaction against







 resiad in the literary languase of the dietion of the Arelaic
 rymantatisno of the age.



 altimate ly led to the comple de day of the literary Latin as

 out howart the drae of this prima, and its place was taken If the eollomaial idiom (linyur rustice).

## ALI'llinhr:

The whast Latin aphathe emerind of twenty-no letters,

 atelets were farmeal from the (ixelk aphathe of the Chatridian rolomie of Lawor ltaly and sideily. 'Ihe special type


 or in-wat if, h. "low latim adopted all of these. As the
 to milize (imot $\Phi . \Theta, \Psi(=$ eh in Wist (ireth) as letters; it



 fimally $L$. In the earlint latin alphand $k$ was used for $c$,












times by domblius. e. g. purtistores, sometimes by a mark like an accent, called the ingex, e.g. intro. Lunis $i$ hall a special form hisher than the wher letters. e.g. ulvo Lertin was nearly always written from left to right. The Manios and Dornos inscriptions are written from rixht to loft, amd one inceription is written 及ouarpoф $\quad$ obs. ('apitals maly wore known in the elassical perivil ; the snatler letters aruse later. See Alpiliber.

## Pbosecriatios.

The vowels had substantially the same somens as in fiomman or Italian. Lone imd short e, however, differed in
 open. A similar differme of quality monably exirted butween a and if ! hat the soum of French if, German ï. Of the diphthenge, ot was prononnced like a in uiste: " like $o i$ in oil ; ei as in min; wh like un in hour eu with the two vowels pronouned in quiek succession; ai like tre of the eonsonants, $c$ and $g$ were always harl, as in moth. get: : always poiculess, as in sim. In the early laguage final $s$ is often omitted, indicating that its somm was wak. I' wits pronounced like Enslixh w: $j$ (i. e. consonant $u$ ) hat the sound of Fuglish $y: z$ was either $z d$ or $d z$. The aspiraters, ph, th, ch (oceurring manly in Greek words) were throughout the classical 1 reriod prononced like the simple $p, t, c$, with a following breathing, as in chop-house, hot-house, block-house: late in the history of the lampuare (fourth century A. D.) $p^{h}$ serms to hav developed into the sirimt $f$. Final syllables in $m$ in pretry in sone way herame absuthed in the initial sylable of the following wind, it that begra with a vowel, bit the process is nut mulerstoon.

## Phoxology.

A. Tourds.-Latin $a, p, i, o, u$ correspond in the main to the same smands in the parent-sperch. hat many special phonetic changes ocemr, "lhus an wrinally unareented of becomes ě in close syllables, also when final or befure $r$. c. in particeps for partictps: ureptus for tirmptus soe hans, Aceent): perle for pedu; reditere fur redhàr: lofure a sinule consonant or $n g$ unacental ab bucomes éa e. g. adigo tor adago: contingo fur cintrago. Short ebecomes in unacuented sylables before a single comsonant (exem it $r$ ) cer. colligo for collogn: but genpris, nut generis. thart $i$ beromes
 mare for mati; tome for teri. Shont o in umarented syllables regularly changel to u, e. ge filius for embiar fitios (found in inscriptiona) : tehunt for iwhont. Before er, "re-
 the Augustan age, e. mortuos, servos. short u before labials, begiming about the Aurustanare lecomes in many words. e. g. apfimus for earlis optumus; libet for lubet.
b. Wiphthongs.-In the earliest stares of the language preserved in inscriptions the Indo-Enropan diphthongs are much better ropesented than later. Let hy 200 b. c. oriminal $e i$ had apparently abready hecome at mon phthong, and ext had passed into ou, e. er. douco for druro. Of the other diphthongs $a i, o i, ~ e u$, m apmar frequently in wany inserip tions; a $i$ subsegrently brcamp ap. or, in maccented syllables, i, e. g. octedo for iccuito; oi hecame rembarly u, e. g. unus for earlier anos; in a fow words the diphthong was retained and written e.e.s. fipdus, mopuiu; ru was retainom, but in unaccented syllahles hecame $\bar{u}$, e. g. conctudo for concloudo: ou soon passecl into $\bar{u}$, e. g. düco fur druen. The
 the possils exception of $\bar{u}$, disappeared hefore latin became an independent language.
abluut.-IThe Judo-Europen ahlant (sed Ablact) is much less pertectly preserved in Latin than in other lansuaces of the hato-Eitropean family, e. or Greak or Gotlic. Comparatively few Latin ronts exhibitall of the phases which are theoretically posible in the different ablat series. Examples are the following:

$$
\begin{aligned}
& \text { a-ceries: sta-men, stri-fus (nfor d); }
\end{aligned}
$$

$$
\begin{aligned}
& \text { r-serics: gin-us. gityn-o }
\end{aligned}
$$

$$
\begin{aligned}
& \text { ŏ-serips: fol-i, fiod-cre. }
\end{aligned}
$$

C. Toutel-chenges.-1. Countraction. Jike rowels perinlarly contract (freguently, tom, com when mparated in (t). e. a. copict for rompint: prendre fur prohenler': nema for neheme; nell for mithll. For unlike vowsls the following principles prevail: pra, po, in, in, ur, we remain mochangel; so also all combinations where the second rowel is lung and
 place, inal the drality of the tirst vowel grevail. Thas- "f +









 $r$ we hase a paranitie wow in werts of the tyn of ager for
 rowel was often lensthenal in apparent compensation fon one or mone omittol consmants. This phemomemm is



 4. Symenn: Many words show the "repping ant of a short






 ronfinel to thene cate whore the fullowing wird buran with


 non is mot frequent.
D. Comstonauts.-1. Jimpils ( $l, r$ ) These frequently intechange in orter to ambirl the repotitha of eithert or $r$ in
 ludum; rifaldus for colulous (ralum). Sonnetimes the
 for pretstrigite. By allintt the liquid-smetime lurame in


 but like the lipuid they often lerame in l.-E. ennant, and
 sepm; decm for deem: militem fur militu; simplo. for
 here is the develonment in latimof the Imlo- Enrngean vaiceal
 follows:
 Latin f (mitiall) f (mit), h (init.). of (init.). b (medial), d.b(meti). A.g(mel.). ighe e(mel).
Examples are: fini, root bhu-: alhas for althos: fiomes
 fore $r$ : himes for ghams: mola for wegho: anyo fur angho; (g after H: formus for ghomes: nerguit for minethit (gn after $n$ : mides for snighis (" betwetn wowels). The last three cxamples ilhotrate the relar ah. The other haloEuropean mutes $p, b$ (hahial), $t$. d (tental). $k:!/$ tuthtural, induding both pratatals and relar-) froment, fir the most part, few perouliarities in 1 atin. Final $p$ in up, ap, sup (by
 to $b$ before an initial voied embonant. and then the forms

 fur decrumm. l'alatal $k$ amd orgularly hemate $c$ and $a$ in


 phrtance. Botween rowels thi- herame $r$ (rhotaciom) abnet the elone of that l'reliterary l'eriak. The tradition of the oder andliner survived, hower. and the rramamam eite













Andxr.


 -rally hame. the the hathe - llathen of :t word. $\because$



















## 1.wnetus.








































 (12. scomal membur if the Latin hemantratives isto ifses.



 wrll porped in Cireek, hetwern verte with ani withont
 ham almon potally dixampared in Latin. Nearly all Jatin
 the whematio comjuyation are sern in tesp, amb in some



 Prom the midile: it orisinally reprented the sulyeet as


 Latin han an inliatiw, sulbuetive, and imperative mond.


 (e. ar vilerim) $i$ in arigin an qutative, as are also the pres.
 (川) atise an rewnizel muld has disappeared. Latin atso hat an inamitio, which is in origin a verbal nom in the



 wation if the Lating being really arotst formations. The
 is the woult of the fu-in of the true perfect with the aorist. The Latin aho has developed several mow type of this ture. viz, in-si, -ri, -ui. The imperf. and fut. in -bum and -bo (rom hof-, betme) are now formatims. The imperf, subje. fshourially an anr. : so also the perf. sulije. 5. Augment amd Leduphiation, The Jmbo-Furoperan abment (p-), the finn of fat time. has totally divapeated and the reduph(anion in mo bomer laraly remented. 6. Perman Endimps. The marinst cmlings were: act. [rimary, sing. ; 3st


 pres, -nf. l'assive both frimary and secombary, sing., 1 st

 hat :ymbial andinge of its own, but in the fusion of perfect and morist these dinalyared.

## Word-formation.

Words are formod ether by aproming suftixes or by combuitin, of man shlixes the commonest are $n, \bar{a}$, tro, rlo (Jow tho, io, m, no, mo, ro (ero, tero), lo (ulo), bro, to, co,
 en, on (ion, ion), mpn, tor, nt, os (es). The comprative suftix war fors. that of smprlatives urixinally tumo-. Verbs form their prent som from the root liy the suthises 0 , no,
 werl, compmon are thase in which the first part is a prepwition I $r$ one of the inseparable prefixes $r e$, in, dis, ete., $\therefore$.s. com-pur, , f-llux, in-hyo.

## sistax.

latin cuntax al all premes. in eonformity with the prevalont buibury of the harnare was much less free than firwe; at tha sum, time its monles of exprossion were hucibally mare correct. In the rase the prominent rôle
 Whal fomally was a resull of the fusion of the true able, the lan', and the in-tr., athe ferformad the various functions









 -nhgr, thexpern whom and the motion of emotingency or
possibility (potential subjr.). These last represent the In-do-tharopean opt. From these primany finetions of the subju. have been develoned a varioty of special uses. In fact, the wide emphoment and minifoh uses of the suljo. constitute one of the most characteristic faratures of Latin syntax. Noteworthy, tor, is the grait extemsion in use of the suljy. within the historical perient, the chmax heing reached in silver Latin. Thar abrist, thomern monger refognized as such, nevertheless still surviral in the su-called historical nse of the frerf. ind. : curtain uses too of the perf. subjv. show the aur. wighin of that tense.

## Vucabclary.

One of the most significant fatures of the Lation vocabolary is the great number of Gresk worls which it has at-mitted-a natural result of home's great indehtedmess to the Hellenic civilizatiom. These loan-worls, which entered the language early in Romes history in time were numbered by thomsats, and eame from bery department of life and thought. Lens numerons are loan-wods from other langhagrs. A few have been drawn from keltic sonrces, e. e. putorvife: a few from other Itahic dialects, e. g. bos, popinu; from Etruscan.e. . . histrio; also from Oriental sources, chiclly semitic and legytian.

## Prosome.

The Latin within historical times gives clear evidener of the existene of two radically fiffarant metrical systems. The carliest Latin verse of whith we have any knowledrethe so-called Saturnian-was, like English, an aceantedone, i. e. the essence of the verse hay in the succession of aceented and maccented symahes. This is in hamony with the theory alnwe set forth cuncoming the strongly strossed character of the early Latin went. The Saturnian verse was still in vegue at the dawn of Raman literature; but almost at the very outset of the literary perion we mote the rise of a metrical or quantitative verse, i. e. me in which the basal principle was a suceession of long aml short syllables. While there can be no doubt that the fredominant influence of Creek literature had much to llo with the rapid extension of the quantitative verse, yet it seems probable that the greatest canse of this was the "hange in the language itself, whieh hat apmaren ly largely lost its strongly accentuated character and become essentially quantitative.

## Daletts.

As compared with Greek, Latin practically presents no dialectic variations. like the Roman state, the koman speech was, during its: flourishing period, in the man homogeneons. In its eatilier stages the only dialectic differences were those existing botween the literary language and the language of common life, sermo cottitionus. The distinction between these two of course began to exist as soon as there was a literature, and was carly recognized hy the liomans themselves. Begiming with the days of Plautus and Terence the divergence between them beame more and more pronounced with successive centuries until it culminated, in the latest period of the language, in the establishment of two independent ilfoms-the hiterary languare and the lingua rustict, or the language of the people. The former of these remained the possession of scholars and the Church; the latter developerl into the lamance, assuming a different character in the different provinces. (ianl, spain, etc. Our sonres of knowiedge of the poblar language are inseriptions and the later writers, particularly from the third century on. An carlier source of great value is Petronius's Sutiricon ( 60 a. 1). . Earlier still wo fimd wattered specimens of the popular languge in the comedians and the satirists.

The best general latin grammar is that of kiilhmer, Al"sführliche Grammatik (Q vols. 187 s f.). The grammars of Nadvig and Roby are alow of value. On promumiation the most raluable work is that of Scelmann, Dhe tussprufte des Latein ( 1855 ) ; vahuble tom is that of Ellis, Qumplitatime Pronnuctiotion of Latin (Es76). On phonology and infleqtions the standard works are Prugmanns fitundriss der vergleichenden Firctmmutik (a) wols., 1 sest- 93 , incomplate) and Stula's Latrinishe (írummetik (wi. ii. in Miilh.r's
 1889): On syntax the leading operial werks are simala in vol. ii. of Nïller's Homelbuch: Hrïuer, Misturische s'yntar
 brüek in Brugmann's (ívultriss (rol. iii., 1893, incomplete).

Charles E. Bexnett.

Latin literature : the hitorature of the jenple of datium, eanecially of Rome. 'the litemare of hanm in lonntrinal and complete than that of firmore, with whioh it fands mont closely conmecterd. hat it can harrily ba anil to bre lass impertant. Reman law verywhete undoline the constitutions en Forrne: the languare of linme is the parent of sev-

 its nomenclature: and from her great bwwor of amimilation and ataptation she ham prearrof to wo whatever was most valuahle of the (ireehs, and frelahly of all wher nations with which sla mane in contact.
The litarar hifent the Ramans may be dividod into there
 2(1), when Livine Ambromes whilital the firet regular

 8:3): (5) the lmperial Are hemming A. 1. 14.

The trehaif Itrimb. The carlient litwature menwe of the fiomans, as of other nations. Was portic, and the "arlinet antlur Livins Andrnicus, A. 1. © tro-5ing. He tramsated the Oflysery of domer into Satumians, and also ranternd

 mone oriminality than Andrmims: be athe wrote an "gice in Saturnians, the Bellum Pomicum. T. Maw ind I latns (rir-

 certamly gemine. of which we have twenty, with comed crable fragmento of the bidularion, and nineteen athers were probably gemuine. 11 a browed his phots from tha treaks. but worked them wr with great ahility. His measures are skillfally handerd, and smatimes with harmaniome eflect: his diation is of great importane in the history of hatin. Ilis plays hog mantamed their furmarity, and have been extensively studien and imitated in mondrn times. U.
 position than the literary men that preended him, amd was the firat to altain the full privileges of a limnan aitizen. Civern was very fond of him, and lares ly guted him in his writines, ami lorace atyles him Iotor limines as the fommer of Latin funtry llis greatent work wat the Annales, or history of his nation, from the arrival of Finems in Italy down to the phets own tims. Ne also write tragedies, montly after burpides and Siftere-that is, prab-

 nephew if Emins, was a panter and a bot. There are extant fragments of his tragedies imitated from suphonles amd Euripidns: we have the titles of thirteen of his plays. To this perital laplong statins (acilins, an ablu imitator of the Gireck New Comady, and Luseius lamumins. the rival of Terenee. against whon all the Terentian l'rologuts are directed except those of that Hecyre. I'. Terentime dedied A. r. r. 50, at an early age came from Carthage to lione, where be was a slave of the senatur Terentins, by whon he was educated and set free. lle was intimate with scipio Afreamus the Yomarer, and hence the rmone that sifion was the anthor or daberator of the phas of Terences. Six comedies are extant, and probahly these are all that he wrote. 'They were great farorities with the ancients, as they bave been with the moterns. Ihe has not the versatility ${ }^{\text {of }}$ I ${ }^{\prime}$ lautus. neither has he his extravagane ; his verse in not so varied, but it is more molodions ; his languape is traly liman, and his phrases often rearyear in thr best work of thr leest perind of the literature llic plivs also haw often bern imitated in the modern drama. Roman prove bike English. was reached by an intermadiale self, the earliest laman historians employing the Greck hagnage. These wre (4.
 M. Porcins Cato (A. c. c, Do-bind was the first ral Latin prose-writer. Dis wrilings were munerns and varinas. dle wrote Origines in seven lwoss, an ancoment of the lalian tribes, inn pmblished inatradion- on atriculture. health.
 servel antire. There wore watome of this perinla at o
 Whers; and alse, furiste at sextus flins. whas whe the

 with parely laman suligects. Ite wrote uther works and resambend Emans in the varicl whacter of his writings, but he was more fuli-hod and acomate in tyle. L. Atranius (b) almat A. C. ©. 60.0 wrote Fubule Toynte of which we


























to
























lbifr. lt, 1,





F










 Evil. 1whan the mon cambully chatwatel of all his philo-

 hat lonit tha somind lunt of the 1-t ell., and of the 2d ed.

 mural funit: Timu ns, a free rembering of lhatos dialoge


 Platw. Xhmphn, and whers, with a careful alelincation of



 Latlin. in prame of findship largely drawn from Greek




 ameth Aumpias. Luth leot. In the department of juris-

 anim, whill are lod. In jnetry thingrat prose-writer was


 T'irn, -umivel lian, an! !ublialial his orations and letters,
 nunt varid talwis: he was when as an orator only to
 and gomeal. (1) hin hatary works the mat important has

 Sur in (ionl was marated hy Hirtius, and the Alexandrine,
 surs all is a mold of simplicits. precision, and lireetness, with liun, rhentical "ramment. Cumelins Nepre (a. v. c.
 mblus. wa a semowhat volmitmos writer of history and
 extant. Ilis shle is mramfal but devintes in some points

 mataphan and the Epicurean rhics, in initation of Em-
 fullat "M"blat of the doctrines of Eficurns and though writton in atm archatio stole, it was compusen with great mariory af thatht and ixpmesion. He recived little at-
 anded him. Ilin work han boun whital by the great Lach-







 -










are strictly lyrical, one is a legentary heroic, two mithala-
 genins adorned whatever it tourhen, but many of his pemare detilet by uross coarseness and sensatity: P'. Vergilins
 Wat alike distinguishori for ability, leaming, helicary, and amiability. Ilis extant pems are ten Eedote or biolics, imitations and party tranalations uf 'Theorritur; (irorgica, in 4 books, in whicli he party arailed himsth of hin own experience in youth and partly drew on the dieck writers. espectally on Nicander aml lesiod, and partly on the lowman writurs It Rehes Rasticis; the masterly diction of this work makns it the most perfect loman prem an a work of art ; the Enpil. in 12 banks, on which Versil sent the last ten yars of his life, and dying regarled as in an mo finished state. In this pew, which late taken its phace apong the grat epies of the word, Serril partly avaled himself of (ireek mondels. and partly relied on his exumsive stulles in Italian legents, history, and localities. Benine these undombtedty genuine works, we have several cominu Sinore, perhaps wronsly attributed to him. Is to the form of his nane the inseriptions of the time of the liepulslie and ot the first centuries of the Christian era are in favor of Fergilins; the earliest dated instance of the use of the form Virgilius telongs to the fifth century after Christ.
 gil the greatest popalarity ammer all the Roman puots. The branch of peetry be tirst enltivatel war matire: of this we have two books or eighteen pieces; his Epodion Libur, "i alont the same date, a sort of satire of a more sectial wharater, contains seventern pinces. Ino afterward reotsel to transplant. Ateans anl Sappho into Roman soil, and the resalt is the three first books of the c'armine or outes, to which he aldel a fourth after an interval of about ton years. These are the must clabomate of all his works. The Epistules, 23 in number in ?boks. are of the same gencral eharacter as the Sutire, but being written in the maturity of his learning and ability, have higher qualitics and are in a more perlect form: the thind of the sumbl hook, the thes Pbeficu, treating of anthetic rquentions in the fireek style, is the most famous of the Epistles. Albius Tiballus ceirch
 of anatory subjects: his repromentions ate natural and his style very simple. We have four bonk of Elegies umber his name, of which the thid and bart of the fouth we undonbtedly spurions; the third beine by an imitator of Tibullus; Legrdanus is his real or fictitions designation.
 poet, and a disejple of the Alexantrines learned and wfen obscure, the lisely and original. Five bows of Elegies are
 lific of the great perts of Rome, was carefnlly hred as at pleader. bat from natural bent turned off into the path of poetry. The following are his works now extant: Iferoides. 21 letters in elagiae verse, fuigned to have bern writuon by laties or chicfs in the hernic age; Libri 1 morum, 4 thegies. chiefly amatory fieces; Ars Ametoria, a didactic pomin in elegriac rerse; Remedia Amoris, of the same character ant form; Metcmurphasem Libri $\mathrm{Kl}^{-}$. a collection of the most remarkable fables of elasic mytholngy, in thactrlic hexameters: Fastornm Libri $1 T$.a an expuition in elowiacs of the festivals in the Roman Calendar: Tristium Libri $5^{\circ}$ : and Ex Ponto Lituri $I \Gamma^{\text {.. the }}$, furner consisting of 90 elegies and the latter of 45, describing his sufferings on his way to exile and while he was in exile: Ihis. a poem in eleariaco written against an enemy whose nane is concealed: Iftliontico, a fragment in hexameters on fishes. Ovill hail a most fertile mind, possesed great mastery of from, and treatent his subjrets with inimitable rave and grace, and had he been as re-
fined as Vorsil, he would have rivated him in fame. T'. Li-
 prose-writur of the fugnstan age. IIe wrote mi philusinhy and on rhetoric. that his great work was his at, trbe conidita Libri, or history of Rome from the fumblation of the
 being the first lecale and booksel-4.5; hat wh hate al munmary, Periorhep. of most of the lat pomina. Fow his mattur he drew especially on Polyhins and the latev ammatis: but his manner, eminently naturat and lively, of relating events and of depicting momels ant chataters. Was hiswon. Ilis dietion was wanting in strict chaspal latinits: and it.s provincial waractoristics were dexisnate ol as frmamitus (Quint. 1, 5. 56). Intimas, who phably lived (anls in the third century, abridgrol the Laitersal Mistory of Trugus. at
wark in 44 broks. writton in the are of Liry Vitruyils
 ambledirated it to durustus.

The Imperinl 1 ge, The siletr tup of liommat Lifomlure.

 of homan history in twn hmoks. His wneln are manamal.


 pilation made without tanten dicerimination. A. Comb-lins
 ters. and emplosed an encerolepatian, of whinh the efotht





 great variety of sulject: that compund with an am thathillinney rather than acenraey. Many of thom are know why in framments or hy quatations. Amoner thowe uxtant may

 We have aborertain enferams and trasembes atributm to Soneca. 'The latter. nine in number, agrem in the man with Whe another and with the prowe work of seneca. Si. (ourtins
 10) hake, the twe first of wheh are hent. He is mather a rhetorician than a historian, and in hin ty comewhat vermilns








 prese and reree. We have his Thersalia, in 10 lumbs, an unfininw cpic on the civil war hetwen Pomper and abar. It is histurically acemate, but the style is artifirial and bat thetic, possesing prat boanties and great defecte. In Neros timb arne that ethical movel which we have man $r$ the name of Petronius Artiter. Iriqiatly a latree wopk, it is now a heap of fragments, the larsent of whish is the fine

 of great and diverse literary antivity. Of his work the pe is
 encyclopatia of matmal scimate. It was compiaiol from a great number of thens, and is remarkable for the extent of its information. hat bears marlis of hata, and is com-
 The only pret of the time of Veapaian that has chne domen to us is Talerius Flaterus. whase Argomention in 10 lamks, is an imitation of Apollomins of thandes. The style is gretentious and the phraseolegy mostly herived from Vagil. Ender Domition wrote ( Silius Italieus (1. I. 25-101) oriminally a pulitician, then aliterary man. He wrote the
 and Polylius, and in style imitating ILmer and Sorgit.
 1lis earliest amb largent work wa the Thi Zase in 12 bums. drawine on Antimachus fur material and followine Viomil in furm; he left his I chillois untinishal: his silere, in is bonks, are very interating, forminer valuatho kombo of the

 ppicrama, turning on the sucial life of hame in thome laty-

 pretic fimm, hut -ink - puite below him in moral hapana-





 on the complete trainise of the urater. Gha-w in i- ver
































 the anther of the leimes of the Tomere fersers: Flown- who



 theins in the varliont mant whe of 'harman Latin literia-




































 Fon - 1-: la-siod he DI. Wables.
Latin loinn: an intermational monemary asociation












 intrathen of himetalion was only incidentat. On acConat of the depmediation of siber the eninage of the five-

 PMrath malition ons bate male in the traty, which was Fmwel in tans ha Prano. lialy, freere and switzerland
 piration if the chatention can comatry may rethen the silwer which it has rexivel from the other mombers of the uninh, hut mast aropt its cown silver in return. $A$ ssetem of minase - imilar to that of the Latin Cnion is amploged in frimimat. Enmanian span, sum, and to a certain exfont in arseral of the stmoth Anerifan republies.
Lations: a king of Latima : areording to the commen tratitions a som of Fimme and the nymph Marien, and the father of Lavinia, whom he rave in marrage to Eneas. Romen thi there wor many other different traditions conovnine hic horent and histins
Latitude (via n. Fr. from Lat. lutitudo, bradth, with, Aerive of hates, bram, wide): on the carth, the distance of a phace from the engator meisured on the merintian pasing thronsth the fine and exprom in domminations of circular manare. To the abont geographers the largest dimention at an knw when was that which lay in the direction E am! W. Heno distances measurd f. or W. trom a moridian asmmed as an axis of refereme were called

 (imgraphieal ar atrommical latitnde is the angle which the wertial line (or promendenlar to the herizom) at the Han" makes with tha phate of the "quator; but as the earth
 timn with the radine drawn to the phate from the earths anter "xapt on tha "quator and at the poles. The angle mand lys this radis with the plane of the equator is called the werentrie latitude. The istromomical hatitule is also "Inal to the theration of the pale abare the horizon. Hence. if the were a star sithated traly in the pole of the celestial - where, the latitute of any phace at which such star Cubld be arn wold tw iletemined hy the simple observation altitulu of that star. cortertion having bere mate for the
 paldestar is mot truly in the pele, when it is ohserved for latitule further and inme important corrections are necessary for it panition at the time of ohmeration relative to the true phle. A moridan whervatian of any star or other (ッ) mutial (or (elential equator) at the time of ohservation is

 nioh the mow satifardory renilt, being hat lithle affected

Lat it uld in the hamens is the tistanere in angular measure of any whatial whed from the ectiptic. at phane of



 charemb from the contur of the - mor
liavivel bys. Newroma.


 Wa paty in the Chard an lomatal. correponding to what
 'imiminge, and the righ of guren Ame was their mest
flomishing perioul. The Latitulinarians attempled formite the Puritan and Prestesterian thements with the national churel. They were stmingly Protestant amal 1 an (homell in
 Burnet, Whintom, 'lillitum, Chillingworth, Cuhborth, More,

 narian,

Revised by $W^{\circ}$. S. I'Luk .




 comphoma elevation. The other aminenees of this phan, such as the bills on which liome is built, are dut to erosinn. By nequect of the watereourses a lare portion of sumberm Latinn han orem in antipuity hecome transformed into vast marsles, while obe pergin about Rome, the wistalled Cimbparna, which in antiguity was the most fertile part of laly, is now a barren amb monheathful waste fow the same reasom. see Lamivi.
(i. L. IIENURIGKon.

Lato'nal: See lieto.
Latopolis: Lue Renen.
 Corret, le: sohliry b. at Curhaix, Brittany, France, Nor. 23, 1743; was edneated at the college of dumper: was a captain at the outbreak of the herolution: fought with brilliant success in the republican amies of the Shes and the l'yrenes, and became the commander (althomeh still re-
 compened of trenadiers, which snon became famons as the Infermal Cobmon, imal more than aneer deciden the battle by its irresistible inpothosity. In 150\% he retimed from service on accomt of ill-health, and making a set-rovare le was takem hy a British cruser and held as a pringmer of war
 son of one of his friemels; fought undel Masmona in switzerland, and then at the head of his own company in Germany, where he fell at wherhansen, Bavaria, Jumo it, twol Mis intomitable courape, his noble pride, and the genwosity and simpliaty of his ehameter made him the ifhol of the soldiers. After Abath his leart was embahmal and carrien in a silver vase by his company, and his name called at roll till 1814, the ohest sergeant answering. "I Heel m the fiela of homar." Revinerl by (. K. Absms.
La Trappe, laa-trib̆p': a retired vallay in the department of Orne, Nommandy, France: 8 miles N . ut Jlortagne. llere in 1140 al ('isterelan abber was founded with rary serve rules, from which originated the celebrated religrins orter known as the Traprlsts (f, e. ) .
 Brives, in the nepartment of Correze, Framee, Nus, B!s, 1762; studied first thembery, and was ormamed primot in 1786, but devoted himselt atterward to the stuly of witumology: became supurinterdent of the entommbergial division of the Musem of Naturall Mistory at laris in ligs,
 of zölogy after the death of Lamarek in 182!. I). Fet). it, 183:3. The most prominent of his numeroms and voluminous writings are Mistoire naturelle des C'rustarés at dos $/$ In-
 rum (4 fols., 1sof-ita); Cours d'Entomolugir (1s:31). 11to also wrote parts of Buthon's Jatural Mistory amb the tutomologioal part of C'uvier's Reque amimal.

La'fro. Marces Porcius: urator amb anthor; of Syanish birth; thourished in kome in the time of durastus. Ilo is highly spoken of by Uuintilians, and ako by The rhter tomoce, who hat kmon him from beyhond, and who has given in lis Contrompsiop interesting details ul his permand and professimal charater, ambl specimens of his deedimations. Amoner his papils was the poet ovin. He diod bs. ©. 4. having taken his own life, aceombing to bermo, while sufforing from a severo favar. Iis writings have fershot. 'I'he Jo. clematio in C'. Sullustium f'rispuen and the Imetametio in ('iceronem have been ascribed to him withont sutliciont reatson. Sice liminer, Je M. Jurfio Latrome rommentation


 location of comaty, see map of Pemsylvania, ref. 5-li): on the Loyalhaman creek, and the Liennicr Valley amithe lemon, ratways; 41 miles E. of Pittsturg. It has coke, coal, steel,












 the work of rehmilaner it aftor it-raturetion hy the british in 1st4: hailt teambmats at l'ittharar in the same yatr. I).
 Orution before the Sumicty of Artists of the Lnited states,


Jatter-IDay Saints: See Nommonism.
Lanban, low beina : trwn of l'rania, provine of silesia,
 German Empire, ref. t-11). It has a lobll-fommiry, several breweries, and mantartmos of coitom and linen gonde,


Lanbe, low be, Itemerom: I, at Spottan, Silesia, Sept.
 devonted hamself to jommailion amblernturn In 1432 he setted in Lejpis anl olited thw Zrifung für die olrgunte Wrelt, in which he defended the revolntinnary bueas al Fomar dimmany, a literay morement which was led by

 fimon siaxmy, and latar on imprismber. As sun als lie was set liee he turnen! to I'dris, whore le stayd fom several years. traveling math in Frabee in the meantime. Atter lis return to Germany be resumma the editing of the journat mentimed abow, but this time dowoted his attominn chiefly to the dramai. la $1 \times 4 x$ le was ehectol to the Frankfort l'arliament, but reairned his mat as som as he was eonvinced that the dolitical regumeration of Germany emath not be attaned by that bomp. IIe was in int! appointal director of the famous burgthenter of Viomma, anl entered ajon the nomst succerstul periond of his litorary and aptistie artivity. From 166a-70 he ormpixd a similar position as direetor of the startheater of lejpaiz. In 1 kit he returned to
 comducted until 18i9. when he retired inta privitw lifo. Ile
 prodains the gorpul of louner (exmany, amb whith are characterized by a frivolons somsmatity, mant he distinetly separated from his later productionso in hiol are thiefly dra-

 1sits; In metrims, 1ser. wte are mot the works of at genius of

 the artistic manager of the Burgherter, lande becenme a reformer of dramatio art in fiormany. Posexaing the bare
 betors, la was able to surmomin hameld with the bost talent, arofnlly tramed by himsalt. It was chaefly due to his untiring eiforts that the Viman Buretheator became the leaning stane of (ermany amd the hest school for German actors.

Jther- (ruebel.


 in 1593 ; became master of arts in 1594. aml was ordansed a priest in 1601. From 1601 ll 1621 , whan he was (wher-




 all thes positions he patinly shownd hiv rharacter ama





 gatimed for him the implacable hatrol of thin powerful

















 tand brigin of frobir Wiolth, in latat a fratise on the sy-




 f. in his prixtu in the 1-hen Wight, and whatn the sigma-

 win the whe fatorite of (harles II thatige his trief rule


 hish commanioner in sulami hy (harles ll. in 1tib0: re-
 of which kinghom ha wac the virtual ruler for many years; Wat entatel loble of haterdale in late: raised to the Englith perman in lait a Eat liniliond and worn to the pria combil. fomine it memher at the celebrated Cobal minitive 11. wan a flatherer of charles and has ben pation in the darke mhor- ly Mamblay in his Mistory

Landon, low dim, (amens Erxet, von, Baron: Auslrian
 and whed in his liftwoth yar the lursian military sers-
 wih thar rank of lioutemat. He offared his sorvices to Prompiok 11. of Prumia, hal wis mot accepted, becanse.

 tain, and loment in the lasarian and in the seond Silesian "ar with ditimetiol. bat witholl promotion. After the Fhan he wa-moned te a wement satined on the Turk-




 valual wer the lianims into acempleternt of the l'rasfian arms. Has ine turtu made a field-marshal and placed at




 Witrat arme the parger of vichory. After the beace of

 whoh An- fian :rmy in the war arainst the Thrs. The
 - Hly detented and Belprath wat taken. In the Bavarian















was cedm to Anstria and Prowa. in the following par was



13. 13. Hempas.
 sia: on the latha: : mile X. W. of thatzie (we map of



Lamghinegas: sice Sitrots oxime.
Latughag Jackan: See Dacelo.


 Economy at llarvard lox: assistant proteon 10s;-st:

 and Finaner at Cornell 180)-0n; became head l'rofewor of
 published Siston Latyl Prucedure (1sil): Xills Politamal Economy (abridged edition, 18st): The stely, of folitioal Eronomy (hints to students and teachers. 1sion): The Mistory of Bimetatism in the Imitel States (1ssi): The Eitements of Political Eemomy (1s8i). C. . . Thenarir.

Langhter. latiter [M. Eng. < O. Eng. Heahlor: O. H. Germ. hhuher > Mmi. Germ. ge-hichter\}: the expression. principally thromed the mascles of the face and of respiration, of phasuratho emotion. The angles of the math are drawn hackwand and upwat, the upper lip is slighty raived, the lower cevelids abe partially elosed, and to a lower estent the mper lids, smonthing the brows and wrinkliner the skin at the outer ande of the efes. The latter acepuire a bright apearance. With an increase of emotion the mouth opens and the facial movements mentioned beowne more decided. A deep inspiratimuecurs, filluwed by shore, jerky expiratory movements, particularly ot the diaphranm. producing. Dy the rxpulsion of air bet ween the rowal choris, the voicesimbls recognizable to the ear at a lagh differing from a ery of distress in that the latter has, short in-piratory and a probuged expiratory sound. When langiter becones viohnt, the respiratory momements are preatly inereased: the heart beats excitedly: the face beomes congested: thars flow : the whole body may be arched forwand, more fremuenty backward, ant rarions phrinselnse movements are mande by the arms and lege, while involuntary excretions may take pace. Se Spuncer, The Ithysiobegy of
 The Eipprsseion of the Emolions in What and Inimuls:
 et CExpression.
lievised ly J. Мark lianmin.


 post in the ohservatory at lanis: made importat disenseries in regard to magnetism, comets, ectiges, meteros, ami solar sputs: math imprownents in atronomical chonk: determined the exact latitute of the larin warvatory
 fifty-three nethatand another (185) of the declination of 140 stars, and contributed astronomical papers to the (omnaissence du Trmps. He was long ansuciated with Aravo in researches on terrestrad phese and was for some yeasposident of the Acalemy of sciences. D. in Paris, Nur s. 1sie.

Launceston, lans'tun: parliamentary amb municijal burough of thenatat; formerly eapital of the conaty of Comwall: on tho Kemsey river a tribntary of the Timar. 22 miles S. F. of Plymonth, with which it is commeted by railway (sere map of Englant, ref. 14-I). It is sthatel on a steep hill, at the top of which are the ruins of Cast la Terrible, built by the ancent prine of Conwall: hat raborately carved gates. several poblic thillinas, and a grammar school fomded !y (Qum Elizabeth. The wigital name was $D$ muehecel (the swelling hill); Lamneentor-anobontly Lanstophon-is derivel from and ohenatery dedicated to St. Stephers. Pop (18:11) 4.84.).

Lannceston: the secom tuwn of Tasmania or Van Diemen's Land; capital of the comoty of Cornwall: nin the
 of Port Datrymple (see map of Australia, rei.: !-I). It has many churches and soluols. suveral bank and newspaters. eommonions govermment buildinge a mechanion institnt", a convent, a theater. and exprits wom timber. amp fruits.


## 

Lanra'cea [Monl, Lat, duriv, of Lemrase name of the





 neveral quarries. irm-fomulrim. and mills, and two wowly






 phyed in perfumery: its fruit yinho a dixal wil. anal in
 its. leaves were the material of the latird eman of videme in war amb of sumessful muts and artish. The mann is ulton lowedy extented to all the Latumet. to whidh this ire be-
 in the $\mathrm{L}^{*}$. S. Some of the larger bhadmontons of the $\mathrm{I}^{\prime}$.

 simply called laurel. The Potnenco lamed is cone of the
 in the C. S. as laurd-tres. In Englamb the Ihyme lemer-


 the andients the laurel found mans womblical and sume
 hranch. and it was a sign of viotory. It was helieved that hirhtniner could not strike it.

Ravisen by chalies b: bersey.


 merons, with a single simple, suprin wary, constaining one ovale. The laurel (Lumbs mbilis) is a wrll-kmon nember of this fanily: its Amerima remerntative in the
 cassia-hark, camphor. and sasatras-bark are foulueqd hy


 Fontork, where his father wa Protion of Modieine. He


 he was mate Profeson of bentry, which larition he hell






 language, and dress on the jarl of his contmontaries W. Drame - critical colition of the sherchetehto dalle.

 (Christiania, 1054).

 ford, in fise: tomk orders in thw 'hored of Ramant:








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Whatan S. fomtas.




























## Jallaratinn Ilills, mho







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 i. Ki. Gitmbar.














 the grambe basel with the Lamontan ame rally newer than the dank arhiots climand with the Imanim. has tended
 A Haber the have it thrmblagy of the older potks on their
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(i. K. Ghluert.
tamrentions.




 suk. hame and hdind prowns and presented them as the
 ramadalise on gridirn wer a shaw lire. He underwent

 bavame it war un"m his day, Aug. 10. 1037, that he won at
 in the fom of at arilimen beanse that was the matrument of him martyrdan.

Revined hys. M. dackens.
Sanriann. Artowte Trabos: lemmanian historian; b, in
 1, andur of lhilmophy at the Collest of St. Sara at Bueharest



 Ampler hin fuhlifual work are: Tomamen critioum in









 4..115:0)
f\%. S. Smanos.

 1.al. lurrus + lir. oféap, oféaros. nulbw: putheric is from














and in the oil of the eocranut. It finces at athout 48 C .10 a colorless oil, and suldifin to a scaly crysualline white mass, and crystalizes from its alemhmie solistion in white
 scales. It disenlyes realily in alonhol, and ret mon fredy
 action. It i< quite insulable in water, hat whon builed in it
 barimm salts of lanice acial ame shlable in water. 'lohe salle of the heary metals with lamaic ath are inmoluble on sparingly so.

Revisod by las liemses

 near lat. 10 ( $10 \%$ (Wxact antronomical funition and altitoude undeterminen.) It is only is miles lomm. fut has been celebrated as the source of the Maramon amb Amazon: on old maps it was represented an a large buly of water. It is doubtfin! if Lake Lamrionelai slombly he rewirmed as the true head of the Amazon, or exom of this thanch of it. Ather flowing about 00 milts the rivulet which forms its nutlet joins the Nopx, a larger stram. Which has alreally flowed 40 miles from its somere. The Nupe therefore must be regarded as the most distant hewl of the upper Maranon: while the Ceayali, which joins tho Maranon far below, is considered by inany an the upper pertion of the Amazon. Such discussions are in fact trivial: the Amazon has many sonrees scattered throngh homdrels of miles of the Amben region.
llerbert II. suitir.
Lanrie, law'ré Smosi Somerville. A. \I., LI. I). Ir. If. S. W.: educator and philnsopher: b. in Edinhurah, seotlam, Nov. 13, 18.3: ; was mbuated at the Edinbmreh lligh sehoul am? Edinburgh Laversity : after gramating he tanght in Enrope for about five vears, till in iso. ine was appointen? seeretary and visitor of sthools to the Church of Seotland education committee, which npto the passine of the bilaeation Act in $18 \mathbf{B}^{-3}$ had control of the majority of selmols in
 in 1 siot, amd in that ${ }^{\text {pusition }}$ did more than any other mand in scotland to uphold the best traditions of seottish edncation: was made secretary to the endowed schools commission in $18: 3$; and in $18: 6$ wits alponted to the mewly established chair of Ehacation in the L"nversity of Ealinburgh. His activity in this chaid is especially konwn through the following inpurtant expacational works: Primary, Instruction in Prlation to Educution; The Traininy fof the-Teacher and other Edumotional I'apers: Life aud Lihn-
 Addresses on Élucitional Subjrets; Landuteqe umd Linquistic Methon in the sichmens: Trachers" timild Atdresses: Lectures on Mediemal Education amd the Rise of L'uirrositips: Institutes of Educution (1993): andl a IFistory nf
 Jle has also written Notes on British Thesries and Morals: Metaphasica Noxa et Titusta by sontus Somenticus: and
 was the first president of the Tenchers' Guild of Englamb.
C. 11. 'Thtrber.
 b, at st.-Lin. LAswomplion. Province of (Quebec, ('anala, Nov. 20. 1841 : elncated at 1 Silsomption ('ollege, amb antmitted to the bar in 1965. He edited Le Difromenc for a short lime; was a member of the (nebee Assembly 1 sis-it; in $18: 4$ he became al member of the Jominion lairliament and wis Minister of haland Kerentre 1sio-is. On the retirement of Mr. Blake Laturier laceane the leander of the Cor ntalian Liturats. In July. Js! g. he becant Premier.

Lan'rium (in Gr. Aaúpov. O* Aaúpetov) : it rang. ol hill- in
 mines of silvar, leat. zince, and antimony. At the bewiminer of the chriatian era thesemines were deswed. heding eon-
 work with profit the refuse left by the ancient miners. and now the mines themstres have ben renmond. It mandrt (1894) five companide (two (irem and the Frobleh) arw mining the hills of Latminm. The whiof frombets of the mines are lead and zinc. 1 village (brantiria) uf mate
 at the old harloor, amd is comnected with tho mines atml with Athens by railways.
d. R.s. sterrets.

Latryig, lowr vich: town of Norwat: on an mbet of Christiania Fiord; 6.5 miles by rail sis. W. of Christiania






















 'The city is of ecelesiastical origin. Whan Biohny Mantan of
 a town grow raplidy and it remamem ant everentastical do-



 enmboyd on the fortitiandman of Paris and latur ajun the



 his military positun, amd was made colnomel in isit. ('nl.

 appleation of jhotograples to the makiner of maph amd plans


 ('mbervatome des Arta of Métiors. Io ham in dow the conloetion and arrangement of the sertion wif literal arts of the
 Paris time was alnpted for the whate of latace. Ilve is commamers of the Lerion of Homan, member of the - herrior combeil uf pulalir instructions. and of that ut terhminal imstruce









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 have taken part in the expedition ingamet Irelama. Though


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Iterbert II．smiti．

 14to is at the lonturdmie sohond．from which he grath－


 in liaremol．Where with hammer and file in ham he bawd themen all the bancher fon the forge to the erect－
 in wher to study the detials of their egeration．Refurn－ ingr，he wan emphey un the Nirthern Railway of France
 ere of tha whits of Emes（inum \＆Co．consiructors of
 the firt wrotuhtiron dilway hidge in Frame and after－

 thenatemb the withetrasal of the Erypian forced labor，






 －







Wilisis K．Ih tton．












 ＂holl salmid for him the frimathip of many of the proni－

 fuar whmes．The work tartial an mew idea，or，rather，it
described a natural and nocessary proees which takes blate whenever man meets man, with shelo exactuess and fobicity as to daise this promes from a dall and shogish pranotice to a conseious amb free mental attivity. Jle held that whers there is combination there is signiticance, where thare is morament there is character. C'medpently the haman figne must sifuify sumething of its nature, amb the motion of its
 chatradere. Ila' ancerter] that the soml, the charater, the history of an individual. Wish painted on his fice that a lamant face miorht le raml like a printed leaf. 'The work porbaced
 at Vorich at the fime of its rapture by Mascóna. Ser Lioes
 liplen, 1sws.


 Athenam of his native city, amd at the (bolleqe thanshas in Paris, and louk high lonoms in the law evarse at the Lniversity of fibent. From 1810 he was entirely acouphed with those ecomomical studies which gave him so great a repmtation. At tirst ho wrote in the belyian periodicals, de-
 came from is.s. a eonstant contributor to the Reamp des beus

 sented Belofinm as momber and secretary of the intornational jury unon paintings at the Paris [niversal lixporsition. Among his mmerous works that on lroperty amt its Primitioe Forms ( $18: 3$ ) has alleady heromar il (lassic. In Jane, istis. he fublished a volumm on the Roligums ('onflict in Europe with a prefare by WI. E. (ilalatome. and in the same gar his Du respect de les propriate printe en temps de guerre. He mblished also Le Sraciulisme rontemporain (1s81); Lp purti clporionl ph Belqique (lxit): and he youeernement dans lu drmormitio (1sin, e vols.). D. Jim. 3. is.

## La Vendée: Sue V'endée, Ja,

Lavender [from O. Fr. lemphre, from ltal. Inerenda, lavender, Jiter., a washing, derivoni lotere, wash : prombar name of a labiate shrub (Larambulu cerot), a native of the sonth of Europe, very extensively cultivated for its fragrant llowers. Which yiell a volatile oil moth wed in perfumery. Lavender water, spirit of lammber, etc., are of considerable serviee in pharmacy and medicine.

La'Yer : any one of several mble seawerts, such as Chere latissima, Porphyru leciminta, aml I'. mbaris. These are commonly eaten as lusuries in burope, either pitkled or stewed.

Laveran, Alphonse, M. D. : discoverer of organism causing malaria; an of Louis Laveran: 1) at Metz, Franer. 1843; sturlied medicine under his father ; entereal the meelical eorps of the Frencharmy; during a tomer of duty in Alderia he diseovered in the boon of persmas sulfering with malarial or paludal fevers a micro-nranisn, tha Ifemetozon mularie.
 thre parasituire des acmants de timpalmisme. At tirst but slight importance wats attiched to this publication, an the seimotife world was committed to a supumad bencillus maluriue of kilebs and 'Tommasi-Crubelli: hut later the existence of this orranism within the bloul-corpusedes al persons alfected with these fevers was confirmed hy ohservera in various parts of the world, amb to laveran is due all credit for the persisteney with which he pursued his onservations and suntained his disoobery. The was aprominted professor at the sclool of Val-de-cratee and is the anthor of a number of imbortant commanications to scientifie societies. Among his works are Traiti des muludios des farmpos
 paludisme (Paris, Is.1).

Laverian, Latos, D. D.: epidemiongmist ; b. at Dankirk. France, May 30, 1819; gradnated M. 1). Irom the laris Medical School in lx.3.), hiving benon in puphe of the militars instruetion hospital at lille: entemel the modical enps of the French army; was potasom at the Dut\% military hospital from $1 \times 41$ until 1 s.jo. then sepred an nmbur of yatm in Algeria: in fsiof appuinted to the what of Military Nerli-
 reator of the selenel ; during the Franco- iemman wire serme as medical insportor in the Army of the Nortlo: in lase went to Montpelliter to organize the military shoos! there, subsequently retaming to Valdrederace. Dle was the mont prominent fremblathor on military enplamiology of the
century. IJ is most important work is lop la mortaltit of




















 lende toward thas Amas, but in his charitable edmbetrots comur into conflact with the military anthoritiec, and was




 de Chambord uremer him to veturn in furson lo franme and



 man (foremments a pomino rigid!y to anforen tha anti-
 lisheri a lotter showing a complete chang of fath in palitical matters. In it her lecelarmathat it was the litat fulioy of the ('hareh to acerpt the republic. 11. in Alariers. Nos. 26 , 1s!?

F'. M. ('ulls:
Lavin"inm (now Prution): an ancient "ity of ltaly. in

 ltaly, and namerl after him wifti lawinia. In hiotoriad timos it had alrealy low any importance it may have fossussed earlint.

 Formall School jn l'arin, where he was afterwarll one of the


 dexoted his attontion ehielly tor the histore of Cemans.



 d. Illemutyen (1が







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 II. . draw hath the -athe thimethet in wher werds, when















 all of the enmmonwealths inelmded in the C. S., constitu-









 har approvall, and frovinion iv alme mand for legishat ion on









 ant uf it-anemal hatature, in the excontive or judicial lramben if anemationt, er in -pecial urgats of local gov-







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Sll theranare of writlon law atove moticed differ mainly





 laturns. We are in the lathit, atano of hange the terin sat utes in the sinne limiter mons.





 eral in their sempe amble the ofserven fant that sperial legishathon is ognen to groat abose. Far this retama many State combitutions in the [T. S. probilit the pasoner of
 to enforeo such prohihitions. In the limet planera it is almont

 are less perneal: it is a quention of darpere biack of this technical diffenlty, hownever, is one that is more serimus. In a highly civilizal soubly-i. $\therefore$. in a mexiety that hat remehed a high degree of difermatiation amb secotalizatinn of fanctions- equality is anythiner but aluity: it is rioht and expedient that dithorent elanose of prombus and hiffernat
 and it is not easy to braw a ceiontife line ol hemarkation between such special legiskation as is just and desiralole and such ats is majust and injurions. For thase reasmethernarts
 applied to laws. and have rembered their derisions en the merits of eath casc. From the stampeoint of seientife jurisprondencer, the contention that a spodial law is not a law seems to le indufensible. sume shecial laws are good and some are bad, but all have the eriterit of lats. "They are declarations of publie will anforced hy public antlority

Methouls of Abroquting Letrex.- Fer the methors in which laws are made, see law-manns. Laws are abrafalal or put ont of force (I) by comstitntional ammolment, as was the case in the L'. S. With all laws reamoline shavery aftar the adoption of the Thineconth Amembment to the Ferberal Constitation. ( ${ }^{(2)}$ ) by the expreise of at surerion legishative authority. Thas where concurrent leashation powar exists in the national and in the local (state, provincial, or cantomal) legishatures, the emactmont of a national law eoverimemat ters presinasly regnlated by lecal haws daprives the latter of legal force. This will be the cate. for "xample, with all the State bankruptey laws in the U. S. whenerer 'omeress shall again alopt a mational law. In case of this character, however, it is possible to hold that the state laws are not abrogated by the mational law, hat that their op aration is simply suspenden, so that they rarain fuld fore with the repeal of the national law. (3) lay repabl. i. (a. by a contray statate enacted by the same leqislatise anthority. Repral need not
 patible with those of an ohler law elfects por fonto the repeal of the older law. In (asee ol' lount as to whether the ohl and the new law are contruliotory and incompatinle, the fresumption is always in favor of the survical of the oller dale.

It was maintaineal by the Roman jurists that statutory law was eapable of being abrogated by contrary chatom or by non-mser. This is Eentrally denied ha molem jurists: but therir denial seems due to the fact that they think of usage fonly as popular usatre, and do not reconnize the lawmaking force of govermmental uxage. (here Jotaprotmexre.) It certainly seems true that even statutory laws may he practically aboogated by an executive of judicial mon-ixer. In many momern states the statute-books matain laws that
 "deal letters." An examination of theme liwa will show that their enforcement is rabularly depublebt upon movemmental initiative, and that an expentive cnifom of nonenformanent has been develapal with the gateral appresal
 conts of a comntry have so interpoted a statute as eithor to rob it of all fore or to attain a result oflue than that contemplated by the lograbaturn; and in surh cases it certainly might he said that statutory law han hem abrogatma by the enstom of the courts. ('asis of the last surt, lowever, du not oceur in momern times; momern jurliges ule nut in thu habit of exercising such a power.

The Domatin of Latw- In arly times and in somi-civilized commonities the domutin of liw is reqularly determinemb by race or by religion: so that the law of a wetain tribe of that of a certain eunfession o1 sect fullows the members of













 "peration: that they cowern all permons within the turtory,














Retrospertio Laspavation. Is the domatin of law iz lo-


 fion that ariocsin determinimen the tempural domain of laws is whether a law is to be inplimel to all derisions renurered

 ment of the law. This question is marabaly atswered in tha* menative. It is reacoizen as a primeiplo of justiee that laws shall not oprate retromectively: that the lasald watacter Which has there inmprosid upm the acts of mon or upan other fucts by the law exi-bine at the time. shatl mot he



 from imparing the mhliatina of comtrant. In conatries

 eral priample of constrantion not to asoumm that the legislature has had such an intontion maless it is indieatom "xpresty or ly meresury implation. In the dital af private
 uf laws is liniterl to rane where difinitr rights lame been Feoted maler an obler law. Mar capacity to ardure rights


 cation of stathory laws are ortatly tacilitatod by periondical revisions, in which antiruated amil repabed provinons are climinaten am! repetitions avobled. ami in which some gen-
 Work was rlone for the imporial statutes of linne by the

 amd the majority at the sinerlatates pullinh revisald statutos from time to times. Whare this is not nome, grivate

 motans of dimentring thur varions statutiss still in force. Inother mothon of attaning the same ends is to ralnce all






 commonly imblates smmethiser mume than at bure frevian






















































































##  <br> liculad by \& K. Nibams.












Iaw, Whatay: contromrsiali=1: b. at Kingrs Cliffe,

 Hat rothere 1711: waduatiod as M. A. 1712; tomk orders in the Chareh of Finganl, amp preachat for a time in Londun. but on the arecosion of the hense of Branswick to the



 Irr. Iamjamin lhanty. hathis in a sermon before the king
 inse the matinamos. law wrote in roply 7hree Iatters to

 ramk of thu dilambers of anthrity borla in chareh and


































his biography wors printol for the Theosophian library (18iff).
 of his life, chatacter, and opmions.

Kevised by W. S. [PRRY.
Labes, Ilenry: compuser: b, abmut 1600 at salimbury Enerland, where his fathers. 'Thomac lawns, wat vieatrathral



 songs. Hilton's Jhasize of romms was set for mande and


 of his fums. Wraller. Herritek, ami Phillips Wrote wf lian in al similar strain, and were imblated to him for the promlarizat ion of many of their sunser. The musie of Lawns was
 a royalist; remained in the sorviee of the kime as chork of the cheque until $164!$, and composed the antherm low the comonation of (harles 11 . He fublishos in $165 ;$, lyme und

 Westminster Abber.-Mis elder bother. William Iames, also a gentleman of the chapel. was asmodiatel with Ilenry in sureral of his musical umbertakines. and componed the masic for Siandys's version of the Psalme ( 1018 ) and for many songs of that period. He was killed at the siege of Chester.

Lawes, Sir Juhs Bensett : ehemist: 1o. at Rothamsted, Hertfordshire. Fingland, Dee. 98,1814 : succeeded to the estate in $1 \times 2.2$. Ite was educated at Eton and (oxford, and aftor leaving the miversity he sent some time in Tarmon studying ehemistry in a practical way. On his commeng of age and taking possonion of his extate he began regular experiments in arricultural chemintry fownactical astionture, and in 1843 he engaged 1or. (filbert as director of the lathamsted firm moleraking in commection with him it ststematic series of investigitions in the freha, the ferdins-sherd, and the laboratory, one result of which was the intronduction of superphophate of lime as a manure. Aceoments of the results of the Rothamsted insestigations are to be fomblin Journals of the Royal Aericultural Son-iety of Englaml, Reports of the British Assuciation for the dilyancement of Science, Procedings: amd Tramsectimes of the Finyal surety of London, Jomernel of the llortieultural Society of Drmdon. and other publeations. In 1880 Jawes was created a baronet. I). in Jan., 1s92.

Law-makins, Methods of: the practical methods employed in the enactment of laws. Intreatines the subject of law-making one needs to onnsider mot only the nature ut the legislative body concerned, its size. methml of appointment, character of members, ete., but also the methods by whieh the wort is done. Bitd men are often so held in check ley rules which they are compelled to follow that they an dis little harin, while goon men. for like reason, fint themselves at times prevented from givingelfect to their best plans. Again, the rales of parliamentary bractioe important as thery are. are often fomal in we to give realts quite different from thase intentwa when the rube wert passod. Only fron the study of the lerislators at work can a juat astimate be mate of the exa+llence or Weakneas of any constitutinn.

Primitire Lam-mationg. - The simplest form of leristation is of course that of the absolute ruler, who can impone his will upon his suljeets. Jownver, eren in the rulest tribus, where the chief by virtup of his prowest is antor bat, the laws made by him minst he far from arbitray. I- antthropalogical sthdies have shown, savaces ame ab domanateal by costom and superstition that little rom remains fun individual initiative: and if a chate with suthe ient intelliareneo to devise laws mum lather than the ohd enstums shonled attempt radically to change the wity of his tribe, he wondi lose his power.

Very early in the develoment of government we find by the side of the chief at buly uf comurilors, wither wepmentattive, as amoner the Cromanio peoples, or uthowias and this body, althongh the king mary nominally make the laws. heenmes really the legishature. When, as amoner the amodent Greeks and Germans, questions to he seltled are blinensem] by the council, or by the chitefs, belore the perple. whome ar provid or lisapproval is freely expressed. the ponder opinonn has great weirht, and indede it is often deveisive. for tho broadest politien sense of the word, whatever the form of
geovernment, the soveragnty lins natimatrly with the funtr.

 the methons of making lats followerl in the lealimer oivilized staths. While in many reande the methenls of the
 abike, in uther poxperots they ane su rationlly dilledent that they maty ho silil to be almose of thillopent typuc. In atll





 thongh diflering -omewhat, mod no mperitl treatment, at they all temed to the same romult. 'The oreande villerenees are of muth mome importane
 Tu those untamiliar with the l $s$ sytem monsaldy the mont striking peroliandy is the ratann exintiner betwern the rex
 dations to (Gongres. bot maly in exceptamal cotoce are lley of ereat inthemee. Ile or hiswabot may frepara a bill on an important robstion, bat it can mot even be intronlured into ('onsros without the friemolly act of smme somator or

 tive. An influmbial private cotizen can on as moch as ofn the President in this remald. thangh the ['mendent's persmal intlanee is uften great, and he sometimes dombles intluences vores by the jmomise of wlfice. (ow the other haml, in nome of the other ematries mentinmon has the execotive heal so great a lirect inflaence in deteating lecrinlation that he deems umwise. In france the l'resident may fore the recomsideration of a moasure: in (imat lidiain, indirently thrmgh hiv majority in the llamse of Commons, the luimes Hinistor can smothor one: in (iermany the lmperial ("hancellon, theough his Prussian endeagues in that Bumberath, could defert any underirable one: hat in all the cases the impisiduals directly contmon may thrir own votts. lnasmuch, however, as a bill ran he faswed over the President's vetu only ly a two-third-vote in bith housec. he hats a nearative poting luwer equalto that of mos-sixth of the members of lonth homses, tos saty nothing of the effecet of a buto mon the minions of memifers. When une thinks of the fery inngortant measures that Presidenas haw stopled by thair retoes that in my of the other comotries would certainly
 L. S. Congrass the tremombus anti-leashative fore of the veto alpurs. The facel. tow (owine in sume stateo do enmatitutional limitation of time of the sesombus of the legiaktums, atud in all of then to the committerestem for all clasens of hills). that much of the lostivlatim in the [. S. is illdrarested and crade in form, as wall ば, at times, injurions in wmont, eombeds the expentives thmak mone use ot the veto pewer than wald wherwio la the "ase.

 trolled and limetml by the exerutibe that a dom in the homos
 furtant moasures. In the L. S. sulatathtially ivery hill
 amends it at will, recommermls its parace wr its deteat, or smothers it withomt action. 'Thomeh the honsen mast take


 imeperment. the is maturally litan hamony in the lans.


 Work separately, thenegh they work from the same whman,



 denmdence of the committers in the [ $[$. S.. and the natural desire of each 10 alvame its onn work, land whwn \{n the delay of important moanares, while those ut triflimis ennsequelice are parded forwatal by sume skilltal lawiwian. 'I'his




















































 thom tor tahe the had in all impertan mathe of kerislathan ant are in frotion inuml to follow this lealerohip. maln, thers wh tu loring the "llanition gaty int power.







 hatment-make na- of his wrowe in trafting liths; but

 thow. :mat then that are likely to ereate tronde of any hind

 Whath atre then fal into form in his othece so. too, while

 water to wise indice and anistance to the minister in charge of the hill, and to draft ammements that he may think it
 form, are einenlated to all the members of the eabinet be-

 of all monher of the eabine is of conse made patically

 witten that urixinates a! the impritant mensures, and these
 if the while. The jrienure of hines however, has led to the afpintmont of two promant gram committees, of frim-inty to cishty members mith. le ict generally instead if the commitio of the whold, thoir worl being suhmitted dimetly 10 the hane. One or the was instituted in 1882 t.a conaine the lamkuptey Rill, the other to consider SteHon' Cuhe lith. 'Ihe first did its werk well: the second
 l-h. whel they were atain inatinterl. One considers gues-
 the enher comiders thase conceming trale shipping, and mamintars- The members of these gram comanitees
 "ính momind ihnen by the bumse early in the session. The eahbet mas in sond part divet this choiere The chairman of the embuitter ai seledim is the ehaman of the commathe on stamitur unders with refernce to private bills,





 hers ane uften retared to abe committers for examination and repret hare they are liselosed in committee of the
 inther in unally namel hy the mombremaking the motion fir ther rifemid of the bill, and when it- work on the one

 joint examideratinn and reprt.


 whain permiond to brine in a bill: then the govern-

 -int: 11 ram the unial rili- in committer; in short, the


 mition fir then, wr, wilithe appowal of the government, for the ake of fursamine anmentare that the gevernment favers. hut dowe but rate to shand sponsor for.

its dealing with bills affeeting private of lenal intorests. In nearly all eivilized evontros private and howal bills follow the same course as do thone of seneral puhile interest. In nearly all states, howeter, the "lepartment of the woymment whose interests may be affected by the hill give it eareful eomideration. and the recomamelationa of at department haw ereat werght with the legislaturs. In the U.S. the semaration of the exerutive from the lagivative alopartment. and the treatment of priate hill. by yall cant mittees just as public bills are treaterl have at thme grem rise to cmmpation. This has ahor hapmen in Frame: bat though bribery was not uncommon formerly in (ireat britain. at present it is practically unknown. livery private in local matter is now honght in by petition an surval of the oh syan of ha-making hy petition) of the partios interesterl. thomah later a mentrer takes eharse of the bill. larliamont usnally meets in the early days of Febmary ame the notice af such petition must have been willely indertised in the papers in Gotober and Nosember, no publication hoing male later than Nor. 2z. On or befare lece. 15, if any lands are to be taken, as by a railway ol tramway, or if othor particular interests are affected, nitice must be served on all persense concernerl. In case of bills that provide for making aqueducts, docks, drainase, railways, strods, and like improvements, plans, books of reference, drawings, cte., must be denwsited on or before Now, 30 in the atlices or certain justices of the peace of the Buarl of Trand, of the sheriff, and in other puthlic offices, for pulhe insuction and use. On or before bet. 2f a copy of the bill or nutition. with a decharation signed by the arent, the title of the hill, and full description of its subject-matter. must be dowsited at the privato bill office, with cxtra cupies for the use of mernbers and others intersted. similar deposits must be made at the olline of the Treasury and at the General Pontoltice. and in special cass at the other departments intorested. "All estimates and declarations. and lists of owners. lewores. and ocenpiers which are required he the standine corlecs of the honse, shall he dapositel in the private bill oflice on or before Dee. 31.0 special forms are provided for the statement, in detail, of estimates of the cont and specifieations regarding the structure of rallway and similar works. In short every elfort is made to insure the fullest publicity possible and the most exact information.
The hemse has as oltieers, two examiners of private hills, skilled law wers, whose duty it is to see that the orders als to notices publication, ate, are imy ohservel. On ban. 18, after at least seven full hars notice for each bill or petition. the examiners begin their work. Opponents of the bills or petitions may come before them and opuse on the groum of non-romphance with these standing orters. If they have not been fully complied with, a special committen docides whether or int they maly be dispenserl with in the eave under consideration. The evidence given hefore the examiners is of legal form under oath, or ly athlavit.
The rerular chairman of the committee of the whole house for the disenssion of the questions of suphly amb if was and means has special charge of private hills. Aftor the questions recarling the standing orders have been setHell by the examiners as above, all private bills are thoroughly examined by this chairman of the committer of ways and means and the comsel of the speaker. These men are experte, and are at liberty to make sugentions t" the committee or to the homse regarding the bill. Thay must repurt to the house any provision that affect the govermment. Three or more spectal referees, appointed hy the Speaker, not necessarily members of the house. exceptinit the elaiman, form a court to comsider the question of the lums standi of petitioners against any private lill. They denide whether such petitioners shall be beard to mit.
Aprivate bith, before fimal action in the committee of the whole and in the house, after having pa-et the prefiminary stages miven, is considern carefully on it- merits before a small emmittee, consinting usually of ${ }^{*}$ a chairmath and three members and a reforee or a chamanaml thene members not lueally or otherwive inturecterl therein." This specal committer is appuinted by the committen of solnetion mentioned aluse aml each member is requirwl hofare sitting to sign the following declaration: "I dulumbe declare that my constituents have no local intrent, amt that I have no perconal interest, in such hill: and that 1 will new gote on :ung question whin may arise withont having daly heard and attemted to the evidence relating thereto." No, member of such committee can absent himedf exeppt in case of sickuess or by order of the house, and the commit-
tee can mot procerh withont ane ial nether of the homse if

 bill with all their evillame ami the mather is pally (an shered in a semi-julicial mannor. If any hetarmant- of


 made a matter of remod. amblamben in th the homen with
 -hagest amendments with ur whonat the ewheme of the parties conerned, and to make sud, menmmonation to the herase as it sees fit in order to gruder ito argim.

Promoters and "pments are taxal heavy fere by the honse on that such hills are pot hronest in uinden the mat-
 is required, or if much promery is ancernal. the mot increases very rapidly and may amman to mornom- sums.
 whik it has effectuafly stifled hibry and johnery. Bills are premed on their merits only. and in the furm bat aldaped to accomplish their intombed purnece. The catefal viting of the hills ly tramed experts at difinent stare of their promress. the carefulattention to issure complatn fublinity and full notice to all parties interesten, the small size and the compersition of the srecial enmmittee of men mot interectedwhich, with the full remensibility of tath member for every vate. gives to the members of the commitere man the functiom ind feeling of jumpes in enurt-all these are firatures that might well be copien in other comatries, empecially in the [.s.

The House of Lombs often differs in its emomes and rules from the llowe of Commoms. It in wry urful an a homa of revinin: but it can hardly raist the llonse of Commonk When the sentimant of the jeenla gree with the latter, awd its methons need mo special theatment here.
The thief advantages of the liritioh sortem as regards
 The rexmmihility for laws in definitely fixal ; the cabinet can mot shift its burien if it makes a mintake either in leasishation or in its executive work. Agam, it secores the phe cedence of the most important mpantes and a seneral unity of legivation both in matter and form. 'Tla" importance tio the party of every limonsin holds pablic athention. An adrere cote may easily mean the downfall of the wown-

 dutios and opmontunities, and who is the recognizal and of the party leaders, not muerely in guiding votex in the hass. but ako in manging eleetions and in directing party affats
 aly (1) the umbe opportunity siven to the mini-try at the expma of private membera. An ahbo mow man naturatly
 depents mon the halaing of a firm majurity in the hemse on ewery important men-ure, the temptation for yell for the
 owerwhelning at times. That fom of gevernment also, to
 sinkine of private julgment, and the welding of the wotres and members in the main into two ereat partio. Where this is mot done ats oftea in Frame and laty, the lank of sability in the gewemment is a great fanlo "On the "ther hand, Where les denmis unon an alverse whe empmomise beconce a necesary condition of paning the mont indertant meatres, and this insurs in mombre of in- anese the dominane of the molerates of all partie- rathor than that of the atremiat:
Frave-The form of gowemment, so for as it encerns law-making. is conntially tho same in Frame :
 Tha most ammon eriticiom umon the fienth fownment is the instahility of the ratons minitrim. They fhange
 to the difference in the principlo of entwoment, int rather




 measures for which it was eratal it fallo. amb at mew ealio

 ties whene to deal with.


Cormone from the formation of the rmpres at any rato




 manaler in a pardinmentary gommanot.







 fach that Irania han conten of the army in the man, that
 fore frem the pertise gained lis its hat history, from the
 of amm, I'rusia man pramically alwass control a majority

 whane in the constimion, hut her wote is not emengh to arry thronds maideol any new jrupect. Each state has an (apmal pish of initiatise, hut I'russia's position is such that all manata of greal imporance are expected to originate with her. The Chamedlor as preshent of the lamesmath, and as hat of Promiais deleqution, really controls in this requmb lirat, Prusia, and then though Prussia the whole Bmaderath. Su boug as he has the comblence of the King
 the member of ad shate mas vote in mison. In practice the ('hane llow has even defind the Bamberath opposed to hivwill. In lson bimatrek refused to and to the Reichastag a ball paccol by the bumberath, herause an amemement had bech added cuitrary to his will. The bumberath protested:
 the banderatlo yidined and withdrew its amendment.

The part that the ('hane fher takes in fomine and earrythy the budge shas fully his power. The bedget is prefaid at firn les the heals of the various departments, who uhbit tothe chanechor a detaled estimate of needed exbumburs and recolph from the varinas sonces. These Chiofs of departments are apponters of the Chancellor, and hatel ohber pratiably at his phasure. lirom their reports hut draws atl moderl details, en-owlimates and unifies the whon, aml frame it to the lamerath. This boty exanima it arefully, maty critionse it in tetail, make valuable -Mrentions. 1 .... hat finally pases it in the form that the Chamedner derince man. It hen gees to the leedistag. and here the (hamedhe mas have more trouble, for here he has nu diret rontrol. lie may. however, himself go be-
 minione or mathers of the bumberath, who are heard in woll wewh or in the commithes. The lidichatag is limitel in it: clunition in another way, as are most legislatura. It is remornized that it an wot indirectly atro-
 cary it ont. La thic way all regular expenditures are usu-
 Bindatar in pratiadly limited to the re joetion of same new phan of mixime remone or to prownting the creation of -
 liknwh hat for a manduly of alowh. Ben, however, in

 mans. Xahill ah hamme law with int the comsent of the
 any manare that the ladehotar may wis to beome law,



 winlal tu futher the piliey of himadf ath the Emperer.







 foll. hameser, all the grat roform masures of the empire
have come from the exentive and the lerindative holly really waits for the initiation of the exemation in sudy matiers
fommittoes in the heichotar are anminter, in fomm, mbeh as in Frame, thourh the practice is very difment, am the general course of proceding is about therse sat in other legislative haties. The while honse at the begimaine of the session is livided by lot fito seren sertions for the whele session, insteal of fir a month is in Franee. The bumes of the sections, beseles the rerification of the crembtialn of the mumbers, is to apmuint the members of the committers. Nominally this chaice is made ly election: practioally the sections do mot mont at all. The leadors of the diferent farties form an exta-lexal commattee called, ather the misersity phrase, the man erment. The members of the senior emvent afmertin the membrehip of cmanitteet anong the partios in pronertion th the ir relativestrenght in the homse. Thaty nime the mombers of any commitioe. This list of members is hamded to the mand allicial, who enters their names as if they had been realle apmonten by the sections. The selectiom is mot manle necessarily for a section from the section itself, as in France, hat may fall upon any member ot the Reichatar. In abe of a donnde clection. which under presme practice will not hapmen, the member deciles, according to the rules. for which sectime he will act: the other makes a new choice. There are sis standing committers:-on the order of business, petitions. commerce and industry. finmers and tarille, justice, the budget-and special committere are apminted as needed. This is all in practice, however, really settled and directed by the above-mentioned senior convent. with whith the speaker regularly consults, and which, though it has no legal standing, is pratieally and wisely recornized as the directing foree in all matters concerning the legislative business.
Switzerlani.- Cof far as the pasage of the laws thromeh the legislature of either the confederation or of one of the cantons is enncerned, lithe need be said. The lifls need to pass both honses of the legislature of the conteremation. The ministry (Bundersath) may prepare and submit bills, and diseuss them in the housea, though their tenure of oflice does not depend uno their succes in carrying their masures. The fact that they are elneted by the hanses in joint session. however. practically makes it certain that they will be politically in harmony with the houses.

1. The Referendum is one of the two three pecnliarities of law-making in switzerland that need special attention. The referendum dombtless originaten in the emstom of reguiring representatives to get instructions from the home govermment lefore deciling upon important inestions. The smaller cantons elected by bupular rote their rewesentatives to the fedmal asmembly. and naturally settlod all questions submitterl to them in the same way. At present the usare varies in different cantons. In some any law passed by the legi-lature mast be sumitted to the jeople for ratification. if a certain mumber of voters (the number depening una the population of the cantoms demamel it ; otherwise the law stands (the "facultative refermbm"). Attempts to eheck this pawer of the people have been made by secnring the provision that if the law is orpent it need not be salmitted. That check has twen weakened again by requiring a two-hirls bote of the legivature todechare urgency. Whe tendency in Switzerland is charly thwam the direet nice of the petple in law-making. In Zarich, which has 1 whath gone further in this direction than any other lares canton. with the possible exceptinn of Berne the people vote f wite a year on all the acts that have been paseal in the momtime ly the cantonal comeil. The council an but no law ints force till the people have decidend unan it; hat in cane of urgency the emoneil em smmmon the people swmer to a special vote. The peaple wote anly res an no an bitch haw submitted, hut the comeil may ask them to docide somrately on special points. The faws most be distributed at least thirty days before the votimes. so that the permbe may disenss them. The ahsolute majority of these matime demen
It is the Waty of the emaneil tio con-ider and pat intu form all bills that are to be submittel to, the peeplo and they have the puwer to devide finally on many matters of minor importance, thongh many of these matters are harely of an administrative nature, and are never of the nature of new leginlation.
2. The intintive of the people in law-making is ant her step that switzerland has taken in the direction of a mat democracy. In Zarich, for example, every viter hats the right to propuse the passage or the repali or the aneniment of any law or of any decree, except the few mimpor-
tant ones that are exhasively in the hamls of the mathand conncil. The promition may be fut forworl in the form of a complete lifl or of a meme bmmary of the subjontmatter uf a hill which the cantonal maniol is to put into final form. If 'we-thirl of the exturid vate in farme of the




 of a meanare, the conmal mant sed that it is put intormaner


 altumative. The gende then dende latween the two wr reject than loth. Swh ponnations orming from the foo-
 nitted mot later than at the semod remalar hallot of the Ienple after its int renturtion.
3. I'Pportional Representution.-The santons of Theines, Nenchâted, and teneva have adndel a swom of pronio tional representation by which path party is siwn a representation in the leariature in promerion to its rolinge -trengh. (som Represpxtatios for letails.) In this way the need for the referembun is much lesomet, while the aivantage of having the laws thoroughy lisioused by a small bealy is securet. The system will donbtles soon lee adopted in other cantons.
4. The foderal yourpament has alno gone far in the direetion of lerislation ly the people dirently. Accorling to article 89 of the comstitution, "the federal laws are summitted for their adoption or rejection by the perphe if the demant for it is makle by B0,00 active eitizens or ly eight cantons." The same holds true of any foteral thecree of a general nature which is not urgent in its character.
On July en, As at, new chapter warding the revisin of the constitution went into form. Ilhis recognizes the principle of f"pmar initiative. If one of the two lmases wishes a total revision of the constitution, ur if 50000 weters demand it, the question must he sulmitted to the pernle. If a majority favors it, there must be a new deretion of the two houses, and they wonk out the revision. There may be a partial revision also through p"Imbar initiative. "The f"'pular initiative conste in a demand menented by on 000 swiss voters for the aloption of a mar article or the ablugation or moditication of sucified articles of the constitution that is now in furce." 'The demand may le in the form of at arneral proposition, or the new article may he clathrated in cletail. In the first case, if the federal leginlature alpowes, it will lut the reruest into the form of an aneminment and subnit it to the pronle : if the legislature mes mot anmone. the general question is sumbitud to the fendee :and it they
 in accordance with the famber will. It the amembent is first presuted in complete form, the legrishature may pronse an chtemative form it it wishes. so as for the people chnose between the two. A majnity of the jembe ratime and a majority of the cantons are forluired to ameml the constitution. The phaman vote of a cantom is lodel to exprese the will of that cantem.
 toward permar methond of legralations. Bistrat an the lewislature alpurs in nomp every new comtitution in the hesening the frequency of its meetings. in the shomening of its sessions, and in the many prowinne in the constitutimes. themelves that ape of the nathre of ordinary law- In biof, the afparent remite of the swiss experimene with this methond of law-makine is as follows:
5. It is fomm that the fermbe as a matare comservative and are arorse to any rah expriments in legikhand . Tht

 arequed. This may at times delay wat lecridation, hat it at any rate insures 1 "मular sungrit for tho bans that are
 and manament of inguptant railways wat rajented for thas
 for), though it had paced buth homen ley a later majnity. In is matter of that kiml. inverving wry late expmotiture, it is certainly well to wait mutil the reinda al!mene lof fore undertaking shed a schme, end if the mothe be wise.
 gom reasum for lulief that there is juhture in it. This fact is likely to diseonrage corrupt lobbying and to and vance the











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#### Abstract

           
















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leviad liv L. II. Baleer






The comer io maked wh ley limson any level hard sur-
 friment. Wond, we. ary alow mand. The cent is is feet long


 hish at the pant amb : flet in the midule. The pests stand if fort witale the sille-lines. The balls are of hollow rubber,






'I her rartiont


and Italy as early as 1500 . It exishod in two forms one pheyed in the fosses of cantles, and in shy spane bomaled by walls, which formed part of tha mame amd by herrew


 name perume arose from the fact that the hall was alrack ly the falm of the haml. Lae longure perme mant haw on a




 ple clain to hatre inventod the mame, and lind. an dontit. Int a hall of suma kind back amd forth over a cord of mat: hat


 committe to frame laws tor the wame. A yens later the
 revised the haw and held the ehangionshipheeding for singles on it- erounds at Wimblealon. The Al] England LatwnTemmis Clab enntimed to rule the same antil the formation of the Lawn-Jemnis Assoriation in 185\%, which is now the governing bouly in (ireat Britain.

In the U. S. the rame Wia first playet at Nibant, Mass,
 iii foree were those und in (ireat diritain, matil in 1 ssi a convention was malled by the Voung Americat (ricket (club) of Philadelphia, the stat con lshand Crieket Chab of Now York, and the Lomisworl Cricket Clubot Boston. 'Jhis comsention formed the U. A . National Lawn-Temms Ascociation, whind has from that time made the laws of the grame in the $\mathbb{L}^{+}$.
'The singlus ehampionship' was played first at Newport, R. I., in 1881, and has been hed at that place ebery sumeding month of furust. The wimers are as follows: lsst87, K. 1). siars: 1888-89. 11. W", slocum: 18!0-!日, 0. s. Camphell: 1k!e;, Ri. I). Wremn.

The doubles thampionship was instituted in the same yar as the simgles, and hav jeen held at various paces-Newjont, Oramer, N. A., (hiname, etc.

Explumution of the Greme.-The ganne is beann by the players tossine for chonce of sibes and "service", i. e. the right to make the firat stroke of the gama. The winnor may take either the sile or the service, but if he chonses the side his opponent has the right to serve or not as lat may juref. The player who is to serve throws the ball up into the air with one hamd and strikes it with his racket, trying to make it fall in the front part of the court clagomally opmosite to
 plafer mast try arain. Shmold he fail a recomal time, two fatults are callial. and one point is semed for the striker-mat. Should the server, however, suceeed in hitting the babl intor the propre court, his opponent mast return it after the tirst bonnd. Ho can phay the hatl into any jart of the servers cumrt, and the server in his tum mont return the ball, but He is no longer compelled to phace it in any particolar part of the court. It is mhly the "service" or tirn stroke that is restricted to this duadramgle. In like mammer any stroke except the service may be blayed before it tomothes the ground, i. c. "vollerod," bat the service must lw allowel to
 behing the base-line, first on the right of the comtrol-line, and for the next stroke on the left, and so com altermately,

The server wins a stroke whenever the striker-mat ditils to reforn tha ball into the server's court.

The striker-ont wins a stroke when the server serbes turn eonsenutive lianlts, or fabls to retarn the hall intothestrikerout's erburt.

Fither blayer loses a strike if the hall toudne lim or anything that he wears or camries exeent his racket. or if the ball louches his racket more than oned.

When the first stroke is won the score is callod "fifteen." If the second stroke is won by the same plabire, the seme is
 other worls, the game is mide up of thar strmas. each called tiftern, excrpt that for convonibure furty jo colliol in-
 forly-five is still calleal.

Four st rokes won by the same player make wamm, as stalled.
 three strokes the serme is ealled " deures" anil an idndional stroke" vontage " is intrombed. Thus tomake stant a phaver must make two eonsecutive strokes after the rall of derise.




 returns th "r rillac:-all.

Watches arm wathy the low of there wit bat in atl


 sames takes the ser.



 pirve fur wery linte, who shall erive a hadima on that line



folds.- Is all players aro by mon mems athat, it in often

 wives a bistue can and ons point to las sempe once in a set at any time hresees fit

T'he next oudds are half-fiftern, which is we stroke eriven at the begmaing of the seromb, fomith. ame every following
 Half-thirty is one atroke the firat wime, two the second, anm

 Forty is three strokes in widl qume. sombetimes the difference lectween two players is so ereat that mhls like forty are methed to make a game: but when sum onlde are given there is pratically no game left to phay. ac one stroke may win a
 better flayer must make one ur more strokes betore he can serore. The table is exactly like that of wise whly exemp that in the cose of hall'mends, as hald-filtum, hatif thints, "ta, the larger odds are given in the culd-mmmberen wame of the set, while with given odds the same in the evem-nambered simmes.

With a view of promoting exactmess in hamdindpung a syonem called the guarter syatem has been dusiand. In it filtern is divided into guanters. one guathor of diftern is cme strokt friven in the secondl, sixih, tenth, de.. grames of a set. Twos quarters is one -thoke riven at tho lecrimming of
 Fhare grarturs is one stroke in the secomb, third, and limath
 of at set. Fifteen is one strekr in "ach erames. "The reat of thes system is warried ont in the same way. It is atenrate hat compliated. A still newer lat fiar hiture cmmplieatul mothom is tod divide tiftem into sisths. Whe wher subtem
 rame. It simply comsins in playiner till ont payer reaches 100. The servie is ehathged afthe four or ax strokes. This is a dall gamte amd can hot be decommenaled.

d.AMES IDWHGT.

## Law of Nations: see INT:RNATONAL Law

 \%., Kan. (tom location of combty, sod mild of kimsas. ret. 5-af) ; on both sides of the Kansan river, amd on the Atch.,




 tained from the river her means of at dams amd tho vity has





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 Rovaming to Niow Yorlk wiht his prionters，Lawrence re－
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 that suale and the hritioh frigat，Shamen in Boston har－ tur．The thealuake was taken by avalt and carried into Hatifix．Where lawruce died buly．his exchamation on
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 and Punjautio to the reliaf of Delhi．Ilis en－operation wih Canimg．lawdock．Gutram，and Clybe for the sup－




 ducal the nownominatiant forec tasuberibe to a 6 －per－cent．
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 －rabar－with hall：at montwh hat paterl in oil：he was

from the society of Arts for a cally of The Transfignation: at twenty le setted in limulon a a portrat-painter; at the age of twenty-twn he was male a supplemantary issuciate of the lioyal Aeademy, through the suratial intervention of (ieorge IIJ., and paintal protrits uf the king and quet-1,
 knighteal: in 1820 he berame fresidont of the deademy. Reymohts lefriended him with ermased and inthonere, and so diligent was lae that during his finst prate in lombon how exhínited at sumerset IJober seven purt rats of women, llis attempts at lastorical paintinus. suchas the siatan stummoning his Latiome, the subjuet taken from llitton, dill nut justify his abrabomment of the department in which ha excelled. Tha* not distimgnished man and Women of tha time sat to hime his priece were high, risine in 1810 to 100 gumeas for heads and tol for full-lengtho-more than thriew his earlier charses, $\ln 16 t+t h e$ prince rewent commissionman


 the Emperor of Austria; in Londun he palated Blïcher and
 salri. Ilonors wore showered on him at home anm! abmotal; foreiun acalemies elected him to mombernifj; lie was mabe a chevalier of the Lecrion of llamor. The simetial ranom of his success was pmbally the skillful and mot too grose thattery of his sitters in thin protraits: every we found himself looking his beat in what seemed yot a faithful Iikemens.
 ence, by D. H. Ẅlliams (8) vols.. Jonm(on, 1sitl).

Revised ly IRUselde Sterais.
 York eity, oet, 23, 1stm: graluateI at commbia conlemp in 181s: studied law. and in 1001 went to Enron' admittal to the New Yurk har ou his return in 1se: : sermtary of
 1829-28: then resided fir ame time in latis, and returned to the U.S. in 183?. H1 Hetame eminent in his jrofesion, and was influential in promoting the Erie Ralway entorprise: Was vicerpuesilent of the New York Ilistorical siceicty $1836-45$. In 1 sio he remorad to labde Islam, where he became Lientenant-Governor and ating Guvernor in 1sis. and membre of the constitutional convention in 1sis. He was a member of the social scipnce Congress which met at Bristol. England, in Oct., 1sfa, and lecturer on Intermational Law (182:-73) at the law schon] of Commbian Collegn at Washington, I). ('.. in which eitr le gaimed distinction as an advoeate in cases of international claims. emeneilly those arising from the Treaty of Washington of 1sil. Besides writing many articlew for the magazinex, ant publishing shorter papers and hrochures on various subjects, be tramslated from the French of Barthe Marbois a Mistory of Lomisiona ( $1 \times 30$ ), and wrote a Mistory uf the Sequtintions in Reference to the Eastern and Sorthenstern Bomudaries of the Cnited States (1×41); The Letur of Charituble Cses (isti): Visitation and setm (1sos): at "ommentary om the Elements of International Latu" (in French, 3 vols.. Leipzig. 1868-73); Disubilities of 1 merimon Women 17nriod 1 bromed (1871): and Administrition of Equity Jurisprudence (Boston, 18i4). He edited (in Frenely Wheaton's Elemonta of International Lan, with a memair of the anthor and copions notes (185). D. Mar. 26, 1ssi.
lievised ly F. sturfes Allex.
Lawrenceburg: city ; capital of Dearlwru co.. InI, (fur location of compty, see map of minamat raf. 8-Gi) : on the Ohio river, and the Cleve., Cinc, Chi and St. Is, and the Ohio and Miss. railways: 25 milow W, of Cimomati. It las manufactories of leer, whinky, harrels, earmiate, furniture.
 Pop. (1850) 4.66s: ( $1 \times 90$ ) 4.284.

Fuitor of " Prese
Lawrencelomes: town: (apital of Andusom (on), Ky. (fow location of connty, ser map of kentueky, ref. : $;-11$ ) ; in the
 churehes, pradent schmiks 2 hanks. flomer-mill, harrel-factore. and werkly new-paper, and is priacipally engared in to
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Lawrence Inisersity: an intitution of hamins. connected with the Methoxist Epimomal chareh; simathel at Appleton, Wis. It was fommed in 154\% ans phated in 1849. The Hon Amon A. Latwernee, of buthon, Mass.. stamp
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The chater prowiles for full aniversity work. Thor anmas







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 tion in $1 \times 5 \%$.

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Law Reports: the pmbishen statemonts of minims
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 Which are the carlient of English roperts exteminge in an whowen serise from the heriming of the reign of Eatward 11. to the latter wal of the reign of Inme VII.. with brakn ames reaching hack an far as the refor of llenry Ill. Thay wore taken by the prothonotaries or


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 ter of reporting was left oporn to abland law yers undertom
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The vast maltitude of luoks throuth which the laws mat
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 Topirts of Englam numbered $294+$ columes, and thone of the It A. athut 3,000. The number is me moth larger,
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Gwing to the fiket that then ripurt comban themsands of










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 （ $1111-1111111,11$.

























#### Abstract

             


## 






 in，lexmixiw bill，the main principhe of which is the giving wh whtherto of the inhabitant．of any parish or township
 h，forserantal within thoir district．Defeated at the elec－ tman latio．he wa－retumay at the head of the foll in 1868
 If．W the proside of of the Cuited Kinerlom Alliance for the Shprenim of the Lipure＇lratlic．aml the spokesman in the Hana of limmots，where he figured also as a frectuent op－ ［＂Hent of lamatli man other subjerts，and where，on June
 for a majorits of twout－－is．Jhe was def fated at the par－
 ermuth ilivinime of＇umberhat as a（itadstonian Liberal the following ？ar and intain in 1 sy？






 1Henthly．
（．．II．T．


 cima：whaned deacom duly 10．1sth：was minister in







 bove in the promation of the stambard of 1sad were only intwrapat by his death．It publi－heri saveral volumes，in－ （Hatine studies it the（horch（Sow York，1Ni2）and The
小心i。 forvied hy W．S．Perry．
Lay＇amon：put ：a priat at Arley lagis on the Severn，
 ing ehomida of linelinh hivary from the time of the fab－ anam－Bratu－of Troy to the dath of King（admallader（689） －（1．）．Hi work is am ：mplified trandition of the Brat
 thine larivel charthy from the writime of Beale and St．Au－
 mere than a tram－atin，of heotrey of Monmothis Latin Historim bifithomm．＇The value of laymmen＇s chronicle is
 ib，lat more imitatime the impere rheme of its Angle Xirman orisimat．The lant indition is that of Sir Frederie



livived ly II．I．Beeas．





1839 he untertonk a course of Eastem trawel extenting own several years，chiefly within the Turkish empire：learmed Persian and Arabie；spent many montlo in 1ste in explom－ ing the antipuities of Susa amd suothwestern l＇ersiat and bassing thronerh Mosul，hecame interested in the exeava－ fions then beting mate by the French eonsul．M．Butta，at Khorsabtel，the suldenetl site of Nineveh．Setarnine tur
 Canning and whers，heran that series of wombertully sus－ cessful resemrelaes which hats mande the british Nusenim the rivhest Oriental masenm in the worla，and laid the fomma－ dion fur the reconstruction of ameiont＂riental history hy means of the copions cumbilorm inseriptions．Aecomats of these liseoveries were given hy Layamd in Nine veh amd its Remains（184！）．The british（roverament in 1849 anpoint ed him attache to its leqution in Constantinumle，and he an－ dertook for the british Juserm a secomed surice of exation－ tions in Assuria and（＇haldea，which resulted in mother work，Dismorirs among the lains of Nimereh amd Babylon （18：3）．Je also published two volumes of emgrabings of the Llonnments of Vinperh（ $1849-5: 3$ ），and a volume of inscriph tions（18i！）．In issit he published his Eurly thentures in Posia，Babylonia，and Susiand．In 185．Jatrard waš elected to Parliament for Aylesbury，amb for a fow weeks was［ mand
 administration．He was arain on luty in the lestation at constantinople for a short time in 18，\％．and took an active part in the llonse of Commans in the chates on Eastern questions，andocating a vigomo pulicy against Russinn ar－ gression．He risited the Crimea in 1s．5t，witmessed the battle of the Alma，and exmmined the comblitum of the army．con－ cerning which la som afterward gave testinomy before a parliamentary committee，the appointment of which he was instrumental in porourins．In 1sinj he became one of the leaders of the Ammistrative Reform Assmeations was chosen lowd reetor of diemeen［niversity in 1s．5．amd
 some months in lmbia duriug the ereat rebellion of lisit 58：was elected to l＇anliament fur sumbwark in 1s60．and appointed by Lord Palmerstan in imly， $1 \times 61$ ，Tmber suero－ tary of State for Foreirn Aflars，holding that pont wntil the fall of the Rassell ministry in July，1s6t．In that yan he became a trustee of the lifitioh Musemon ：wan chanf commis－ sioner of works and privy ernmeilor in flathtomes adminis－
 of ambascador at Madrid．where he long remainch，having rendered important services，botla 10 Great Britain and inei－ a entally to the［．S．，during the tronbled prion of his diplo－ matic life in Suain．In 1876 he was sent as ambassadur to Constantimople，in 1878 receiven the order of the bath，and in 1800 was elected a foreirn member of the lastitute of Framee． D，in Londun，July 5 ，Le日t．Revised by（＇．K．Avans．

Lay＇cock．Tumas，M．D．：phrsionogist：b．at Wethorby，
 don，Paris，and Gottingen．where he received dewrees：was the first to fommate．in lytu，the therry of the rodex artion of the brain；heeane Profescor of the Practice of 1 linsic and of Clinical Merlicine at Edinhmer 18：5；was phy゙がian to the Quen in suotland kos？wrote much mpon satatary seience，bhysiolory，mesmerisin．insanity ete．Author of Hind and Brain．or the rorrelatioms of Comsionsmess amb Organization（1560：Bl ed．［sbs）；Methods of Medicul Ob－ servation，etc．1）．Sept．21， 1 sig．

## Lay Days：See Demerratie and Simprixg．

Layering，or Layiner：the pronaration of plants by bend－ ing down branches and eovering the portion to be romede with earth．Ther covered part takes root，and as sum its the roots are well developmel the laber may be cut oflomblant－ ed as a new tree．A notch cut in the branoh where it is covered with earth farrors the early develomant of the new roots．Livering may be done eithor in filll or sping in ontibuor pliants．

Revined ley l．Il．Pinhey．
Laynez＇，Wrago：ecelesiantic：b．in Coatilu．Sbain，in 1512；studied at Alcalat and loris：became the scenmo of
 of the Jesnits on the death of Jovelal in lonetand dion at Rome，Jan．19，liog．He was a man uf ereat hatural rifts． amd still greator attamments：played a comsporomm－part in the rebates of the Cimondil of Trobit ant at the ansplat？of
 his influence on the members wimaterave．It is ermatilly
 the Jesuits issued liom Latyoz．IJe jublishod little，and



Iturand hys．M．I．thers．









Lazarus，Fusa：pret ；b，in New York，Inly oos，14f！
 A seeond rolume，contitlal filmothes，and other fitems．Was issued in 18if：hhis had wam praine experally fmon Facr－

 translations，Iommes and Bulluds of IIf ine：in 1ss．s．siomgs of a semite．Jesides these volmats．Miss Lazarme cantrib－
 imericien Mebrew．1）．in New York，Now，1！，1，wi．
 many，Sept．15，1＊24；educated at Jrmaswicle and at larrlin



 ［＇ibor die Idoen in der（rirsehichte（1～6．5）：Zur La how monder Simmestëusehungen（1N6a）．

J．Mank livirwis．


 1818 aquinat Nijuleon，but otherwine lent sun merentful life，



 erary eftonts attrated or hearverl mach att mation．Com－ plete worlis，st．Petershorg，1sis（ 8 vals．）

1．C． 1.


 color to lapis lazuli．


 to hatwe dexienal the heantimb bint emb amb dome of st． Maria delle tirazic at Milan，and in tho same city the resi－ tence of the canums adjoining the Chured of st．fomburio， of which only a part was finshoel，and the（＇hurehut dbliata
 built the beantifn］palace of the Camembaria and the＇Jem－ pietta an the hill，near S．Jiatro in Montorion．Then an－



 farere and more pertect blans．Ha was in charer of this

 at at later time and he had derisume a dome like that atter－ ward added by Michedangelo．A few wath－pantines of his still exint，amt he is thomght to lase been tha anther of sor－ oral engravings of architectural subjents．1）．at liomb in 1514.

Tlesabill stertis．
 name for the lower elamese of Niplum：sulled from the
 The hazaromi of Ňaples mombered at the elome uf the







































































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 thene the firt clan is contimel th the wedimentary row and





 ha- thumbhrongh thom and tilled or linal them with gahan degnital trom a whtion isoning from the adjacont
 in limetum and tillot. part ially on eompledy. with ore de-



Thrmahomt tan Altathen! belt and the motamorphic re-



 Misumben kamas, of these, the first covers the con-
 fart of the diatriot lyine within the first-mentioned state.
 limwtume, a fation of the Latwer siburian system, and the



 thengh somewhat irmalaly, delimel, matil in the census
 if Enam Minnuri are like in all esontal partientars to thue of Wianmin, expelt that the formation which comtains them is wher-the raturalent of the caldiferons sand-roek of Slu Sirk-and the fixomes which whatan the leal are whewhat mate continuons. giving more syotem and certainy fo minine "Inations. Amone the Miswori lead mines tha Mine La anote was first whend, 1.00 years ago,


 the Mine lat Anthe ?i.fig thens of hat. In these mines the





 colner, Wh the Law and barthet frames. All of the lead
 titntancorn waft lad.
bad is atmmam in the siser districts of coloralo,
 having the dhamelor of argatiferno gatema, and their

 1!










hard earbonates derived from sulphides and lodies of the latter ore, undremmposal. In L'tah the leal oress smented at Salt lake are bronght from many mines-rizo, the great leal and iron veins of Bingham, the chamher mines of Alta. In diaho the principal district is the Cume do thene, producing large bodies of concentrating mes, whild in Mantana the Keihart ind the Barker are the latest prouluming camps. On the Pacitie emast the Monte Cristo, Wiah.., diotrict is coming into prominonce, ant latre borlies of argentiferous galena have hern developen in the pratt few years in the Kmatenai resion on the 'analians sidn of the burater. A gom dral of Mexient on is smetted in the L'. s., the principal some loping the Sierra Mojanda.

The prohnction of lat rose to some imperanere early in the infustrial history of the U. S. It ruarled 10,000 tons in 183? rose to 80.500 short tons in 1811 , and reached a maximum of 30,000 thans in 1st\%. It lectlinel a arain very rapidly, fluctuating between 14,000 and 18.900 tons unt il 1871. Then the opening of the liocky Montain district.. Nevada, Utah, and Condrado, in rapid smeresion carried the
 to $143,15 \%$ toms in $18 \times 8)$. Since 1858 the production has been as tollows, in short tuns:

| YEAR. | argentiferous, | $\begin{aligned} & \text { Desilverized } \\ & \mathrm{l} \text { led }\left(\mathrm{U} . \mathrm{S}_{\mathrm{s}}\right) \end{aligned}$ | Leral cuntents, Mexican ores. | Tutal product. |
| :---: | :---: | :---: | :---: | :---: |
| 1888. | 29,01919 | 128.829 | 28, 5 203t | 145.0.5 |
| 1849. | 209, 9 | 10, 130 | 24.3911 | $1 \times 2.418$ |
| 1830. | 31.351 | 112,179 | 15,124 | 161.254 |
| 1891 | $31.381 \%$ | 14\%,15\% | 21.10\% | 199, 109 |
| 1892 1893 | 31,4ins | 111.9.9\% | :42, 234 | 2010,34, |
| 1893 | 31,43\% | 135,550 | - 4 , | 143035: |

The consus repurt for the calentar year 1 son shows the lead contents of the ures mined in the linky Mosuntains to
have been as follows:

| Arizona. | Net tons |  | Net tons. |
| :---: | :---: | :---: | :---: |
| California. | 3, 1.0 K | New Mexicn. | 4.764 |
| Colorado. | $80 \times 8$ | Utah. Daknta | 111 |
| Idaho. | $23.17 \%$ |  | 10,4103 |
| Montana. | 10.1く3 | Total | 130.443 |
| Nerada. | 1.954 | Itar | , |

The promuction of leall ore in Wisconsin was 1,678 net tons, in Missonri 4.442 thens, and in Kansas 3,617 thas, frum which was obtained po,e5s net tons of pirg lead and 1,250 tons of sublimed lead,
In the Rorky Mountain regin, and at loints on the Pacific const, the Missouri river, Chicurn, Pittsburg, St. Louis, and the Atlantic coast, the urgentiferons ores are smelted, and the base budlion protueed is desilverized and refined. Considerable gnantities of Mexican base bullion are also rofined in bond at Nerark, N. J. The following figures from the census report refer to certain grous of works exclusively
employed in smelting: employed in smelting:

| Grour. | Ore treated, Det buss. | Base bullion produced. net tons. | Numbir of enployees. | Total disburse. nents, exclusive of cost of ore. |
| :---: | :---: | :---: | :---: | :---: |
| Colorado. | 602,01t | $67.185 \%$ | 1,949 | 84, 196, 30, 10 |
| Montana | T1.413 | 16, 23.35 | 45 |  |
| Utah.... | 66, $0^{3}$ | 123018 | 3 c 4 | 6510, $213 \% 9$ |
| Mexican bori | 70, 168 | 13.733 | 565 | 843,23979 |

Besides these quantities, larg amounts of ore are smelted by refiners. The production of Europe is estimated as follows for 1892 , in metric tons: Great Britain, 44,935; Germany, 101,057; Prance, 6,700: Bulgium, 9,000: Italy, 18.000: Ans-tria-1 Mangury, 11,600 : Russia, 1,000 : Grecee, 11,490 : Aleain, 152,185: anil other Enropean countries. 1.000: a total of 356.967 metrie tons. Australia produced about at,000 tons. and Mexico $4 \pi, 500$ tons, including the lead in ores sent to the U. S .
For infurmation on leat-smelting proper, the reader is re-
ferred to Metalueris.
The sults and oxides of Jead are quite mumerous, and are somewhat extonsively employed in manafiet ures and medi-
cine. of these ane of the cine. Of these. one of the best known is the protoxide called litharge. used az a dher with oils and raminhes and in the manifucture of glass. Red lean, of minium, is :
eomponad of the protocile: with the foroxide it is eomponind of the protuxide with the peroxide. It is very generally employed as a pigmant, either in uil-paints or in ploged, like litharge, in the manofacture of of It is also comthe most important preparation of lear is that of the car
bonate of the protoxide. This is commonly known as

White lasio (q.e.). some of the salts of lead are highly


 The acetate of lead are the mostantive prizoms. They are intronhend inten the srotern buht ly the luner and the dignstive orgats: With thase what whim moly in tha perpa-
 glating catco carthonware, be... Constantly met with. "he of the mint triking obmpames of the diserse is what is aralled hationlice, ar colina pietomem.
 Which are atway grave and dillimit of care. Thin ase of

 pipe with tin. It is but lithe more expmaims animerotainly
 IN:

‘comparsos of Lead, The mat impritant of these are white lead, litharge, minium, of red leal. tha nitrate, whoro mate, and uetute. Lithurge is the oxile of the farmula Pbo. Another commemeal variety of this wide is called massiont. 'lhe latter is obtaineld he heating moltom loal at a moderate temperature in the air. The proluet of this action is then ground and lovigatel. Litharge is formed when the oxilation of the laul akes place at at monperature high enough to melt the wxide, as in the process of copel-
lation. Some wif the litharge, that which amplo puichly from lition. Some of the litharge, that which amis quickly from fusion, is sent to market inscaly or flaky fom; lout the more
 in a stream of water. Atter selarating from the water it is dried at a low heat in a revertspratory furnawe packed, and guld as lepignted lithorge lithare of thint usid in the manu-
 for the proparan of lead medate, lead nitrato, bad phater, and for drying nils. Sitd leted, minmm, is :lll wxide of the formala $\mathrm{mi}_{3} \mathrm{O}_{4}$. It is formerl hy continumel lasating of
 gen being carried beyom the stage of the formation of litharge, lt is a red powler, the stade of which varios somewhat, owing mobably to the greater of has furity of the lead used in its mannfacture. It is used an a 1 pigment in the manufacture of flint whas (sere (ilas-r), as it etment ary making stem-joints, amd in the mamutatho of secombary batteries. H'hite lead, corves. is a basic carthomate if lead of varring compwition, wenerling to the mothat of preparation. The Dhetch mothoul of manufacture comsists in expmeing shepts of lead womm in spirals to the action of
 matter. The spirals of shet hat are placol in parthenware vessels, on the hotton of which, but not in contact with the lean, is the dilute acetice inst. The vessels thas arranged are phaced in beds of homse manure. In consequence of the natural decomposition of the manure, cantum dioxile is slowly given off, and enough heat is genterated to start the action of the acetic acid mon the leat. 'lthe cheminal changes involved are mainly the formation of a hasie ate-e
tate of lead. ind the sulsequent decomponition of this log earbon dioxide, a basie carbmate boing fiunal. The Frenoth method of manafacturing white lead bensists first in digeting litharge with proligneons achl, which reoblt: in the formation of a solution of basic lead acetate. Through this carEng dioxide is passed and the white dead precipitaten. The English methorl is like the butel methen, exept that, insteal of horse manure, spent tan in astate of fermentation is used for the generation of the carlon dinxidn, and pyrnligneous acin is used insteal of vinequar. White leat is a heary white 1 wider, which appate to bre mixture in varying momertions of the hasic carlumate of the furmala
 extensively used as a pisment. An ohjection to whitedead paint is that it turns thark umber the inthener of hylrogen sulphide and other sulphur compumbls. Further, the manufacture of white lem nememitates special p perabtions to
 This is used as a material fore the preparation of tho rarbonate and chromatres abll is thomemes in cotalized furm, a resular article ot mbuntres. dotut of Lame Sugar of Latel. This familiar int id, hase well-hnnwn ues in medicine. It is mandinturad hy diondime hutherg in


 of lead has and mor of acetice arih, and the transarent
























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\begin{aligned}
& \text { thrum-yrllow is. } \\
& \text { 'hromerelal }
\end{aligned}
$$

 diaferent meth 1 - - enther la thiling with hane or an allat










 thturh and bivar... from truce chrome-rrem, whinh is






























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 phan in plaththy. the: may bernded whath, and thas

 muth, are sater. 'Ther comatitutional effects of hat are
 fanderation of the shaten with the motal. See the article

Lead tif!: vity: lawrence m., $\therefore$. 1). (for location of



 (10.6) tatel.

## Ladimer Note: see Note.

Lating tuestion: in the law of evidence, a question Wht to at witmos which is en framel ans to suggest or indicate the annwer d.aremb. It is a gencral rule in regard to the taking of feximony that hanline quations are nom allowable in the dimet examanation of a withers-that is, in the examination be the paty froducine him: hut the whole subfort i- pernliarly within the lieeretinn of the julge, and his hwina is rubjet to apmal only in a plain case of abuse. Thlu rasen for the rule is that it withess is considered as prably biasd in faver of the party for whm he appears, and is libely to be indurneed hy his hiav to same his an-
 wither hy varing from the truth or by giving only those mature whiclate fammat
 vamination: (et) When the withens apears to be hatile to

 Want of reablertion, which a augeretion may assiat: as when a jartionlar - percitication of a mator of inguiry is necessary
 Whan the subjuta of inquiry are mot material, hat are merely

Elun wherexaminat inn, or examination by the oqposing paty. haling funstans may be used without restriction in
 thmuy, as he aphers in Clunition to the comsel then exaniming him. Sue the article Evnexce ; aso Greenleaf On


Revised by F. Sturges Aldes.
Lead Plaster: SCHETs.
Lead-puismines: a diatsed embition resulting from tha prewne if a considurab amman of lead in the system. This molition in indued in baton ways: (1) By the use


 bunce haw mit the buwer to take up leme in this manner hut at shat tumbor of ase of hat-poisonime are induced in thit way. (2) by the ue of hat pipes in racking off
 it sulat-water apparatus and the like. The use of leaden
 "mmon pratice ammer farmers amblaters in the U.S.,












 and lace of cular. As rame manifolation varons mental



Treatment.-Opinm is the chief remedy in ordinary loadpoisoning. It reliews the pain, and at times the mistinate constipation, of this diseme. Cathart ies are wery usefut exeept when there is much temlerness of the hawels. Then their use shomb bedefredforatime. Iomide uf patassium is preseribed in chronice cases, and is bediced to asoint in the elimination of the metal. Sulphrice sein and the shlphates are given with a view toprecipitating lead in the intombens and rendering it insoluble. Larised by Whanalapper,

Leadville: city (settled 185) : eapital of Lathe (ex), ('on), (for lowation of cematy, see may of (ohmmon, ref. :3-4') ; on the Col., 》idham, the Benver and Kion (ir., ime the Chim Pacific railway: 114 miles s. W. of Venver. It is wh the north site of Califoria Colch, which was one of the first containing free sehd discovered in the sitate, and on the Mespuito range of the Fik Mmantans, 10.200 fent athow sem-
 taken from ('alifurnia (indeh in Istio-6t, whan the elaims became mamofitable to work and the site wat almost deserted till 18\%, when the presence of cartmate silver or was necidentally diseoved on Jron IFill. The news spread rapidly and sum miniar oqurations were in progress on Carbonate. liryr, Evims, Long, and Derry Mill. From 1879 till 1892 the varions mines yiehed precionts metals to the value of 1 so.000.000, principally silver, and one-third of the leat consumed in the [T. S. The forermment's suigniorage on the coinage of Leadville's silver in this perion was $814,000,000$; its portal revenne wer $8.500,000$; land-ntlise receipts 850.000 : and internal revenue tase over s.00.000. More than 0 ,000,000 were paid for labor in mins and smelters, and si.500,000 for timber used in the mines. The city has ! charches, 11 pablic-schond buildings, 2 hospitals, 2 national hank with embined eapital of sis00,000, a U. S. fish-hatehery with calacity of $1,0,000.000$ tront ammally, 4 large smelters, 15 mills, and 3 daily and? weekly newspapers.

Leaf [O. Enar. leref: О. П. Giemn. lout) (> Mad, tremm. laub): foth. Ianfs, laf $]$ : one of the parts of the plant thelly, especially in the highor plants. The leaf always stimls in a definite relation to the stem, the former being supported by the latter. The stem and its leaves const itute the shout, which is morpholorically equivalent to the thallome (thallus) of lower plauts. The leaf is essentially an expansion of chlo-rophyll-bearing tissue, its framework, epidermis, stomates, etc., beine aceessory struetures. In the simpler cases there is lout one layer of cells, as in some seaweds and many mosses; but in most cases, there are at least several lavers, the outermost being especially molified, as an epindumis, With the increase in size of the leaf (in airial plants), there is an increased development of supporting tiscues, formilug more or less branched systems of ribs and reins (fibrobasedlar bundles). Theme grow with the leaf, consomently the phittern whinh they present is dependent apon the minde of growth of the laf. Where the leaf-growth is lengthwise only, as in miny srasaes and sellges, the veins run paralled from base to ande but where the growth is in all direatins. as in the cabbure, grape cte.. the veins are croked amd itregular. The leaf outline also is dependent umou its mome of growth; where the growth is uniform the maresin is antire, but where some sections grow more than others, the ontline present= certain irrerularitios (serrations, dentation-; lobing, ete.), all of which have been very aceurately detined by deseriptive botanists. These details, towe ther with thase relating to very many leaf-shap ${ }^{\text {² }}$ which have likewise received much aftention in descriptive botimy, maty woll bo omitted here, $P$ byllotaxy, wr the particular armarement of the leaves mpon the stem. has received much attention. erem to the working ont of mathematical formulas, but here arain we find that the law is a very simple one: that in the but "new lateral members have their origin abowe the emonar of the widest gas between the insertions of the matrol omber members of the same kind at the ciremofernte of the growing point." (IIofmeister.)

The chlorophyll-heming edls of the leaf art commomly arranged so that in on or mone liyers (palisade layurs) they stand with their lunger axe perpembicular to and
 cells are loosely and irrughlarly arrangen, with many larere intercellatar spates In leates whose 1 wo nurfanc arp equally exposed to the canlight. there are palisade collo an

 The epidermis of and or hoth surfiers contains may

Breathing pores (stomaten) whin are forman in the division



Fig. 1.-A, section of wihfecucumb+ $r$ leaf ; $E$, compass plant leaf.
pore thus lise lot wem two wells, the guard-with, which retain their activity, and by contracting and "xpanting in-


Fig. 2.-A, epidermis and stomatos of beet ; B, of wats.
crease and derease the size of the plening. Luates with a marked difference between their palixith, and lome parmchyma have tew if any pores in the "pher epidernis: but when the difterence is less interually, the pures are more nearly equal in number: thas in the emmpass-plant there are

 the apple there are nome above, and 246 pr sif. mm . (158,680 perm. inch helow.

The function if the stomates is the ingras and eques of gases, and more particularly the ineren of corlom dinxide and oxyen. It has long hetn liown that monture estapes throurh them when ofren. and hy many it has hom suppused that this was als, one of their functions: the a better yiew is that the escape of monture is aceillental, and mot fumethmal. The whate leaf strmeture is designed to secure as man aexra-
 of "pidermic, and the ofuring and arwing stmathes smber



Leafocutter Boes: solitary hers belomging to several specties of the gems Megrehite; deriving their pumbar name from the in hat of contronting, on simatimes merely lining, their cells with bits of haver rat ont by their seris-

 rose-leaf for its cells, which are of a wery math ambions strncture. The cell it stuths with pullen, in whiol it he$\mathrm{p}_{\mathrm{m}}$ its an eqg.
 orthontrous insects of the wrans. Phyllimm, famply Thasmider, from the fiact that their wing resmble leares in
 L. A., but they are mastly native of the tropme. F. . . I.



 rolling up the leato of treas, often fa-trame them with






















 Solf. 15, 1. © 11.

Liovistl by 11.8. Jerry.




 (11-14). It is wholly if mandern errombla, and is one of the


 "WN (\% リー)





























 fown





 rallal with a similar armade in ouly wirhat relief, amd a belfry -
 fore of at andmat. 'lhe shamane are placed and the latls

 hatige il- hane li: foet.
límbil. sitrges.







the hale or skin. threber making it usofnl in the arts and manufactures. Leather has plavel at bury infmutant part in human history. l'robathy the first recortend instande of its
 which Abraham is dasoribod as wivine lagat a loathom

 water, so that it is a reasumble informon that it wat tammed with bark. Specimens of leather hate bern dinamotod in China in company with a mumber of relie, whirlu gise atimo
 of these "pecimens proves them to be of and ahm tathatere When Columbus arriver in the Sow Word he fomme the coppereolored nativers in possomion st skins tammed with bullalo domg. oil. amd clay. "This tratment is patotioally the same as an alum tammage. The Jmbian aloo smoknal skinis for the purpose of making them prof aramet bermin. Sir Edwin Armald when in India dikeovernd a pair ult slipers in a sarcophatuc contabing nothing est but at smatll hap of dust. In the british Davenm there are among the lousy tian relics tamm apocolide bucks whinh were nadel an anmor. In the U. s.. the ohdest leather of which thore is any romorl is that which has hean found in the huts of tha rakdwellers of Arizona, in the shape of ambal-ilomas. 'lowe Romans also left articlew of leather tamed with wil. alum. and bark. Skins conotinted the first cothong of man. and have been mure or hes perfectly prepared from the earlient times. llabyoman leathor was long celebrated, and blariner the first century of the eloristian rat the liunatans and llungarians were most skilfind tamme. The methon in wentral use in those early brions, as a rule, was not a bark tanamint but a sort of taminer with oil. way, sum milk. smoke, anm dung. It a later jerim astringents, such as matualls am? leaves. began to be usen]. These methonk were paranol in at rather macertain way matil about Isan. when the firct areat change was made in the leather imbistry. vi\%. the une of lime to bosen the hair-mots, making it fuabibe tor remose the hair with ease, and to fump the then and the hile-fiter. thereby abmatiner of the remosal of the sumerthous thesh. learing nothing but the leather hide or corin.

## Ilide Strceteria

It is a remarkiln, fact that, as scitontints divide of "lass living animale acrombing to thein mathre, in the same way we can class the same animals according to hide-finer stre ture. The alligator, shaks, and lizaml are classed amomer reptiles on acoount of their subsioting by similar moans and bearing a general ravinblance. The $y$ are even nare alike in their fiber structure, so marh se that it is almost impossible to distinguish any lifferome nomber the microscoper Again, cowhine, horsehinle, calf*kin, desr*in, ote. may be classed torether, their tiber being of a laseer nature than that of reptiles. In all hide structure we have the same growth and trem? as in that of the bark of trees. The lower flesh structure alway consists of loose bumbles of filwr interworen. As these buinlles tanter the eutis or corim. they become more compact. the weaving beroming of a elomer natture, and as they near the grain, or paphlar. the bumbles disappear, and the single fibers are woren into a masi that hecomes more solid until it reaches the compactares of the horny grain which withstanks the wat the leathor is subjected to. Just as the lank of trees is worked off and replaced by younger layers fiom tha wowl. so is the grain of the living animal contimually replaced by fiber from the lower purtion of the hide.

## The Conversion of llame trto Leather.

This may be divided into there elanos: (1) the fonversion of hide into leathor lis the use of astrintents uf difforent kinds, such as bark, atio. ( $\boldsymbol{Z}$ ). the anomernom of the hinde. or, rather. the preseration of the hime-filur by the new of some minaral-alum, chrome. etc.-at porene calledl tawing. (3), by the hap of oil. "J'he lant two wats are her ne mand actual tanming proosesw: they are simply asalod of as a

 grades of leather malle of hiles are divinal intot two chans. sole and upere. Wir then of cuntrs have the skins. Whied are always lised for the nupur parta of the sho aml silurs.
 ete. The preparation of the clacon of hime for the actat process of taming is an follows:
llides are bought hy weirlat, amd in two bliforent conditions, dry and green-xalted, the latter turn bomind the










 then buing eanily lushom wif with a koifo. or by marhimers.








 mosed "asily with a knifor hy a manhoms. dfter mathar-
 the fle $h_{1}$ in ramored with a shaving-knite: then the buife is well wathol in water to remose the limu-








 batw action is that of raising on lownemerthe temperature of tha bato. The lighar the twannature the mom rapiolly do
 factor whinh has a material wfert in hatw ant inn and rasmes. is the baternia ravages.and, in bomer hatinur the hecayiner artions. "Tht tempuratarn of hatmo in erantal use is from (1.) to 100 F.. and an this is the mast favorathe for the
 pirlity, it will be man that they have a markerl power. If it
 of danser womld be removerl from the bate, and it comblat be controlled aterording to a fixal soale both of quantity of


## "The l"rom ens of Taxising.

The purpone of the art is to comburt the ireen, allmminnas hirle into an article which will not doesty, wheh is tourh in filer, and wheh is usofal for all parpmos for which loather is adapted. Taking the strueture the hine with its ma-






 with a sumb amount of friotion, it heiner hariated with



 inge when the hide is takon from the bamblande, a simple
 having buxa femowol. first. thatome the anaks, the water
 lime sulving the interfilrome sulstante: and, thiml, his the







 leather. an anroumbla it in suth at wat that fla air hus- non attack it hom in any way ranh it. hindine it fy the fower ralled ahsorption. this lowine the divitiner-lime beiwern a




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# -urpanding of thom, it haing messary to change 




Lather in powern with the aid of wit. The skins are Ghon in on and lan in dilac wntil they hat. By this







 -nlatan ial wat that nietallia salts, and is almose as streng as tamia. hidine thi- deran formure the smath mole-





In the taman of gath in be what is known as the Don-
 tho colidit if tamin, the tmumbor of metallie salts, and the the ability of the wilatheryms fomer.

## Elatracal Taxime.

This prewes has rewival whsihrathe attention within a

 ham hamad to he ath to tim win the aidul dectricity only.
 brame if laming. The pawing of an eleetrical current thromg water demapmes the lather, ath consequently re-

 arian tw precipithe ther making the coloring matters
 the word in haning lather by the nse of electricity. The



 tin anoblar, phtinum amothr, silver another, etc. Tho
 any way. Exp riment an still luing conducted on a large


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 animal ermath: lif intance, hath, sumadi, etc. ; whereas

 "ammpe of the lather efia- is the gell. Materiats of both



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 tre has antainel atrabla if lwat? 1" twonty-fiwe years.










nage is that of pine bark in Enropar Ilembork－tros aro wald distributer］thronghont the $\mathbb{C}$ ． oak，imparts a rerlelish color，ami makes as atronir and dn－ rable leather as ans material used．Furnu bas anmmber of spectes of pine．The comatries that comsumat the wroatest amonot of bark are dustria．Germany，linsiat and lialy．
 the case with hembork．The usp of buth thase harlis is to at great extont（onatinom to the hamdera－that is，flair firnt stages of taming all bather before the byinu away Jome bark gives proter weight results－that jos，given an adual amomat of wrew hide，at less ammmet of leabler in weight will be whtathed by using pine batk than by uaing vak，amb a latere wejght by usiner hembock than mak：

 bark is usually feeded from the full－grown tree，and contains 6 to 10 per cent．dannin．

Wrillour brok is afornsed in the above－mentioned＂omatrius and in Cermany．This material contains 6 to 9 per cent． tannin．

Mimose berk is ohtained from the acacia of Ansialiatand a similar sort of vegetation in lirazil．It is a favorito in Finm－ lamd，and the variotos are as follows：dold wallle，silurer wattle（black work，light wood）．Wack wattle，imen wattle． The gold wattle is a native of Yicturia；its cultivation was tried as an experiment in Ageria，and met with some she－ eess．The trees are always grown from semes．whide are Jaid in warm water for a few homers bofore sowing．The acacia may be peded at eight years＂growth，and at that age carties seeds．The＇lasmania bark is very romb，amu that
 good an article，hat Quednsland prombers a broter．The bark is marketed in the tick．ground，or chnemed．Mindagas－ car and the $E+$ onion islands also produce a mimosal hark． The mimos：barks qive a reddinhecolored hather and fomat well，contaning a high percentage of tannin，averaging from 10 to 35.

Crambier is used in very lare proprortion in the $L$ ．S．It is an excellent tanning material：it connes from simeaproce where the matives derive it from the leaves of a large bash． The method of producing and packing is as follows：＂The leaves are tmilet in a tub or larare pot intil they berome a thick，pasty sulstance，the stems having heon provionsly res－ moved from the leaves．This is allowed to conl，whan it be－ eomes had and mastic．It is then formed intoblocks of about 220 Ib，envelomed with a straw matting，and atrain wraped in bagginer．It is a weneral faborite on acoonat of its good color results，its quick quality of tanning，amd the softness of the leather．It is adnaterated by admixture of camels＇and elephants＇dung during the builing－down process．

Sumere is also used in larce quantitias and wives the lightest color of any tamning material．There are fwo kinds of sumac．Sicilian ind．Amerionn，the former wematly eon－ sidered of better quality amb hringing a himber prows．＇The leaves of the sumachons are erramd to a pawilor bot woen mill－stones，and then packed in bitge of almut 200 lb ，im！ shipped．The tammomaterial eontamed raries from 1.5 to 25）per cent．The Ameritan brand contatus was monty the same amomot of taming material．hut is darker in condir amt does mot wive the beamtiful condor results that are whatmed by the Sicilian．

Cheteh is also nsed in the $L^{+}$．S．；the artiole is sommwhat similar to gambito but comes from ludia instead of labo－ China．Its mese is limited．

Fruit taming meterials may be fonad in Erat varioter． The host known is valonis，whe of the materiale mosi grem－ erally used in Eumple．All conntrios consumbe it．Valnaia
 teenth century：a few yaralator（armany beran unime it． and still hater Iustria．It is the fruit of the thatione and is obtainable in Isia Minor amd adjacent istands：m duma it resembles the fruit of an ．Imerican ank，hat in siz．nearly trebles it．
Pathologichl TAnvins or those of Abcorbal fironth．
fialls，at whe time uned quite＂xtemaively，ate bot now




 nin；Chinesa（the realt of the sting of a hame friving ed to























 it in conder are mand．Tha hembick that is conommed is im－ forted from Sorth Amerien．As mont beather is sobl by
 as groud weight results as pmaible，and often，to gain this
 leather are commonly adulturatim．sultereather is nine times out of ten givern false woinhthy forcing whtely fom－ eign substances into the leather．sum as erlomese haram

 weighted with extracts by wer－taninar．leathor－buyers have become wary，and for not purclase large quantities be－ fore an analysis is made of a fair sumple．

## Wetfiltt Restolts．

Sole－leather tanned with these material gives for erery 100 ll ．greyn hide the following quantities of tinished leather：

 （OLSTRALA．

## Initud Stutes．

Oak bark．
Hemback tark．
＊utnat．
Gambind．
（＇intch．
Wak－hark extract
Oblewoud＂xtract．
Thembock－hark estract．

## Fromer．

Onk batk（kirnuto．）．
sium：a！．
（＇hathont－word＂xtract．
（？mehrachor－wnhl estract． some qambier．

Italy．
Oak bark．
link．
Suman．
Vialomia．
Firmen！and Simalen．
Birnlı bark．
Willuw hark．
Gak tark．

## Greal livituin．

Ouk batk．
bivi－1livi．
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Patract－Oakhark amb womal
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l＂int hatis．
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foxl－；l＇ine hark athl Wcati．

> lixesside.

Jirrh hark．
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（1：alis hark．
J＇m．hark．
11．0nlowh iveram．


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I', A. J.
 (herote fulmotris) of the family Thymelurede. abmbant in



 rafy whita, soll, athe hittle











 follows: Thu W"itness of the (Hld Testament lo Christ (1868):












 Revisud by U.






















and the siate penitentiary is 4 miles. S . The mamfactures


 $20.02 \%$.


## Leaves: fie lear.


 lic schonds of Lownh, ind $\leqslant$ mplementel himsturlies therw and later by extensive study and reading in the mathematical



 types of stean-emerine of that time, watrotying then the Green valco-ryat a now well-known form of expansinngratr, and many novel amb eommmical deviés of his own.

 bant advance upun contemprary partice, and chaigned special forms of biler for such pressmos. In the smmano of
 throughont the civil ware and until $186 \%$, when haterighed to againtake up the practice of his protesson. 11.0 Was an instructor at the U. S. Naval Deadeny daring the lather paret of his service in the nary, in the demartment of stam chginepriner. Rewning his pactice in civil life, he madu a specialty of mining makhinery and stemm phaspon-wngines. Te built the enerines supplying the eities of lawremere and Jyun with water, and the entrines of the bostm sherate station. In 1sit he hecome the consulting engineer of the
 tensive mining company in the world. since lsis he han completed all thu dosigns and phans for their enmomons stoan and other mathinury outtits. The is a membere ul many sefentific and techaical assuctations.
R. II. Jnermous.

Leb'anon [frum Heb. Lebhänön. liter., white (momatain). Cf. Syr. Lehhmín: Arabs, Jebel (mountain) Lulminn, and (ir. Aıßavos]: a colebrated range of mountams in Syria, extendintr about 110 milos along the seatoast from the Nabrend Fibir (Elentherns) riser on the N. to the Nahrerl-Jitany (Ieontes) un the s.; i. e. from the great pass unnine intio the valley of llamah (lamath), lat. 34 40, to the viemity of Tyre, in lat. $8: 320$, and separated by the elevatmd vatley of El-Bukaa (Composyria), 10 to 20 miles wide, from the
 from near IJoms (bimesa) on the N. to the peak if dabel-tahSheikh (Ifermon), a few miless. of Jamasins. In the renter of the ralley of bil-Bukia are the majestice ruins of linulBed (q. e.), the ancient IItliopolis, wat which rise tha dasy (Orontes) and Litany rivers. Lebanon was at the carliest recorded periond the chief geographical luature and masionn
 syria amb Exypt, whose monareles often emplowind the relebrated cedars to supply timber for their editiops, and was included within the bombdaries of the lledorw lami uf pom-
 came into their pusesenion unlese in at rery limited mana for
 ern bounlary of the Ifily lamd. The books. prophetir. puetic, and historinal, of the Ohl 'lestament ahmmat in reforences to Lebanom, which suppiled the timber for sulomons: marnificent temple and lablares; and the torm uabally, though not uniformly, inchades boh rances. Fatmanm pornee Was called by the early Arahian qeomraphers dehel-libhan, and hy later writers Jebel-ab-(ilmarby the West momatain, in
 east monntain. Botwern themomatan and the seat the pain of Phuniela is of varying breatth, but never more than 10 or 15 miles, while suars are several times thrown of whioh jut preeipitously into the sea. The base of the range has an average breath of ? 0 miles; the peak of $\boldsymbol{l}$ (hel Timarmat a
 and summins.500 feet. The elevation dractanis toward the S., amd falls rapidly from the twin-patis of Thmat-Nihat ( 6,000 fret) tw the wild, athrapt ravise of tha Litaby, whase


 ceous depusit. Whene the name more matally herived from the shows which enover the main ridur from lacermber ta March. 'The soulharn werion whibit trame of vinlent vol-








 rains of ancient tempho within this portuh, which has still 8 comsiderable juymation. ('apitat, Xahreal-l)ammur. Jormerly called heir-el-katur. Koviand ly 1 : K. . JoAsm.











 of Imdiamapolis. It is in thu batmoaberas region, amd has grain elevators, saw-mills, harrel amb stave facturios and other imbustries, and a daily and two weekly new-balers,


Lebanon : city: caphat of Marion cos.. Ky. (fur lucation of eonnty, see map of lienturky. ref. 4-(i): on the lanisv.







 health resert : amd has mandentories. larer frade with the



Lebanon: town (inempmated in 18G1): Graftom co., N. 1]. (for location of comaty, see majo of New llampshire, ref. (0-E) ; on the t'ommetient river, amil the lieston and Maine Railroat; 65 mils N. WV. of Comeord. Water-pumer
 falls to0 fion in 1 gnila. The town has a fublie library, cirrulating library, and werkly newnlaper, ami mandactures fannels, elonkings, shims, weralls, underwear, machinery, seythes, witch-lieys, and woml-jml!. I'up, (tsyo) 3, 354 ;


Lebanon: villays: sapital of W゙aren co, U). (for lowation of compty, see map of Ohio, ref. (i-1'): on the Cin. Letb, and N. Railway: milns N. E. of C'imimati. lo contains the Sational Somal University, a widely known pivate institution, an "rium-enre sanitarim, a smonty intimary, an orphans home, adol a communty of shakirs. It is in an agricultural and stuck-ratiner restom, and the Polam-(China variety of hogs wat migimally bom in this locality. Pop


 amon co., Pa. (for locotion of eomaty, sue mat of lemmel-
 the Phila, and Readine and the comwall and Lell, rail-
 Dejphia. It is in an arrienlimat. limestom, 1, whathere anthracite comal, and brick-chay rumon, is milec N. of the steat Comwall iron hills, and is prindipally romared in ironmanfacturing. There are form-furnices, of rolline-mills.
 chain works: electran st rod-rallway. aras and blectric lighta.







Lebanon: town: capital of Wilzin on. Timb, for lowa-


 region ; har large lug and mule hrenting interests: and


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 and wian so well plasam with the rasult that he presented
 mondumbent in all att matter, and carried ont in a satisfiatury biathar all the gigant ice sobemes ol the ereat king and his prime mininar Cinlert. Jebran painted the batthe ul dhosamber. engrabul by G. Aulran, in a series which

 al \aballes, the ehapet and patilon of Aurora in Col-




 mosed labrun from his all-important bosilion, riving it to

 of this artiot. who has shown homself hatloy his paintings

 13. in l'itri-, latio.
W. J. Sithlmas.


 Whon the latter hatame rhamerllas, Jethran was his most in-




 "palsh attwhima. Ib was momen a deputy to the states-



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position. D. at st.-Merme, near Dhmerbn, June 16, 1524 His Mémoires ware published in $18: 8$ b his sum. Revised in F. Dl. falbs.
Lelpun. Marie Anye Elisabetia Vhée malhel Mimame Vige- Lebran: painter: b, in Paric, Apr, 16, 150. She win the daurhter of Lenis. Vigee a buinter of ame athitity, ind was married young to. J. 'B. P'. Lebran, at Analar in wivk of art and a writer. Her facility as a portationaintor was shown at an early age. she painted many portrats of the Queen. Marie Antumette, and was pulalar with the conrt molles. She was mate a member of the dratemy in $15 \times 3$. In 10:5 she left France and resithe at Rome, Naple Vionna, and other eities alway buas. Portrita of Lably Maniltm. Lord Byron, and the Prince of Wales, afterward (rempe 15.
 she painted his sister, Caroline Murat, and other proms of the imperial court. Her faver contimed umber the lewturation, and few pritait-painters can bato of so hag and undisturbed a populaty. her wonk has, even to momen
 a certain sumpe intensity and directness, even in the symbolic and allegorical pict tires which bue [amed smotimes. Undoubtelly she is the most famons artist among women, and deservedly so. The best opportmity to stuly her work is in the Lourre, where are seven or eight important pictures. D. Mar. 80,184 .


 moter the empire. His greatest sucess was the hamat Mome
 d Andulousie. In 1 ses he published the prem Foynge on Grece and was chowen to the Academy. J. May ia 1 sat. There is an edition of his (Eucres compifites, 5 rils. (e rols. 1844: 3 vols., 1863 ).
A. G. Caxplemb.
 Drun-l'indare: lyric pect: be in Paric. France, Aus $11,1 / 2!!$. He studjed at the Colleqe Hazarin, where he developed a decindel taste for writing verses. He wat secectary to the l'rines of Conti. He cnltivated eapecially the ahond the "pram. Ife addressed ontes to Voltaire and Ruffon; celchated in turn Lous XVt., the lembanand Sapolen, from whom he received a pmom of 6,000 tranes; poiatel epingramagainst almost all the contemprary men of letters; and dimned a lung henetian parm, La Xeture, which wis hut
 (Eucres complites ( 4 vols., 1ง11).
A. G. Cinfield.

## Le Cap. le-kiap': sce Cape Haytien.

Lecee, letichat: the former Term di otrento, a province of laty, belonging to the division of Apulia. Area, 只. P? sy. miles. It is traversed by the Apemines, and formene corn, tobates, wine oliver and in some plates ontom, but often suffers from severe drounth Poll. (1-90) 61:3,5ij.

Lecce: the amofent Lyeit or Lugia, one of the most beantiful towns in touthem Italy (ree mapoif ltaly, ref. i -II) It is situated in the province of Lence. lat. 40 . 2 N . and Inn. 36 to E.., on a flain het ween the biriatio on the X . the Gulf of Taranto on the W., amt the lomian saten the $\therefore$ The town is resularly bunt of a remarkably line white stone, and has many intereting adifees, eqperially churdes and convents, some of which contain admimhle works of art. At the gate of St. Jiagio is a triumphal areh eraded in commemation of the entrance of 'harles $V$. The myal
 been provilied with the hert modern machinerys and the
 of seville. There is a public litary and there ate welless
 institutions, bere (probally of "rotan ariwin) wam yory
 and in 1000 A. B. Wats governed bey its own munts, among

Leero, lekko: twon: in the farsince of loman. Nonthom laty (see maty of Italy, ref. ?-('). It is delight fully sitmathen on the What. note the paint where it flase onf from the southemstarm of hake (ommo. at the lion uf the limasene.

 Mildte Iges. It is fum one of the man imlutrinus and prosperalis of the mall tuwn of Lombardy. Its irum and
 the east bink of the Lake comnect- Lecom with thann. White it


Lech. lech: a river of Gonthom (iommany whiohtrew in




 hanks, etc. Many mill and worthel liy its waters.



 did mat take nolers: anompanion in liat the lant of

 of 'lray; traveled much in siain. Hogland, (iernamy, und



 when he fretended tw have made many areat discoteries
 sensation at then first aplearamen. He liecateal the site of Troy at Bunarbaschi, allecing that he hat fomm the two
 antes have forever setthal this quention in fiver ut lliwarlik. He is alsa the author of a work entithed Clyse-Ilomate (1sen), in which he attempts ta prowe that lyone wrome
 rufler (1'aris, 1-40). lievined bo Ahfrid Givemas.
Lech'ford, Thomas: a lawyer from Lamden who settled
 tien in Sew England. He peturned th Englan in 16t1. much diswatistiel with his experinnere jublisleal in 1ot? I haine

 lund. He is said ta have dool sum after. A new colition

 tile to New Englamb, Lechforl's worle eontains valuable infurmation.
Lewithine , lw ithin [from (ir. dézeos, yolk of am cura]:
 retted fittly lundice, fommi in the solk of exere, the brain,
 Every lecithine is a fat (ofyceride in whon me the three
 arid in combmation with morine. !rain and neve substance contains the pulmitio uht ir lecithint.



 traveled extensively on the lontiment: sethed in Lomand.
 aml surprised the leamed word in latis he the History of the Rise and hatuene of the spirit of Rationatism in Eu-





 danayed the chatatorities of its pomedomes in as all

 text-bok in thate than one demman miveraty. Lesky juh-
 Aafluence of the Imanination in Mistury. He has heen :H2


 Quater of llatland.













 at.. and tron that tum formand antribund larguty to the

 on (thmaty in the collace of lhysimas and surpens,








 ributed The S. Ialui hyputhesis to, The lepular Science




 Shatistex and the True 'orftirient of Mortatity, Illustrated
 on Physies af Moformey!y at the Smithanian Institution,
 Conimes at the fraturly luntitnte in Baltimore. By the




Levined hy W. Le Coxte Steveas.
Ide conle donv Patus: haturalist: bodher of Lewis le


 of inajo in 14: : devaten himalf to the stuly of betany





 apreph of Vorth therion hislvoiles in the Boston four-
 Nov. :1, N(i)

 armanamb whathentin at Framklin Cohlege. Georgia. in

 Sumaizat cambinge in 1-90; beame l'rofessor of Natural Hatury at framblin (ohere in 1sw, and was lrofessor of ('hmiters and Combey in the Chiversity of South Carolina from latifor wis. acompanying his hisother John in 1869
 Wity of coilifumia. He was vier-pusident of the internatimal congro. of amburivis in 1s!1, and president of the
 1ste. Hf- ic mot widely known through his Elements of

 liging anl miones. Licinad liy G. K. (illbrat.


















soon turned to pondry. His first rolume was Ibimes an-
 of importanoes lt diatinetly expmesed the bleatio bit the su-

 and emotional demont. la innto sympathy with lla ornwing positivism of the century it demambed the elimination from art of the di-play of the persmal herelime of the atist,


 dial serenity of the juems of this rohnme exemplitial the doctrine and visibly inflacmoon the yomme wharation ot poets. A troup of witur folluwed his leal amd weratallad

 usually take thatir subjects. from the stured tratitions amd myths of variona ponples, and athompt to pernetrate and ©xhibit the essemtial yinit ol the meat historice phasen of lanmanity. 'Their philostphy is a somber peosimism. He has


 into the Acarlemy in Isvi, succeeding Victor Hace. D) at Louveciennes, July 1 \%, 18:4.4.
A. G. ('ANFIDLD.

 pareats settled at liaris, amb after recoviner smme instromtion from the actor Lereramd she wernt on the stare at stians-
 mate her debut at the Theitre Framoais in Paris, where she Fery soon attained the first place bmh in ewmerty ant tramedy. IIer acting was tanching rather than imporesise amb her principal powar was a most wombertul minitery. Hanrice of Savony was lav lover, and whon he was madel bake of Conrland sha sold hev diamonde and juwels in wrem to lend him the money necessary to takn gonemand of the comatry. It was alleirem that amothor al his mist bosers. the Duchess of Buallma, prismed her from jealonsy. Shedien Mar. 20, 17:30. Wer remains were mat allowed tareat in consecrated giomml, lut were hariod secretly in a proxate place. Ronsed by indignation. Voltatire wrote and ule on her death, but publie opinion was sufiad on this point that he hal to leare the city. lievised by b. li. Villestisi:.

## Le Crensot: a town of Franct. sire ('revesot, lde.

Léda (in Gr. Ańon): in Gre⿻k mythonory, daunhter of Thestios, King of Ethlia, and wife of Tymlarems, kiner ot Sparta, to whom she bore Tomamba, Philonoe, amb Clytiemmestra. Her beinty enthralled Vetns, who astumed the shape of a swan ame surprised her in the bath. 'Thongla she Was abreaty premant by her hashame with flytammentra and Castor, yet by her divine lowir sat conceiven lonllux and Helen. and was delivered of all four at the same time. Leda and the swan were favorite suligects among the andernt artists, who depicted the visit of Zans to ledit in armat variety of ways.
J. li.s.sterkett.

Lederer, Jous: German surgem: known only us an early explorer of the momatain region of Virginfa: wrote in Latin an account of his travels, which was tramented amd printed in $167^{9}$ hy Sil William 'Talbut, under the titlo. The Discoceries of Jibhe Ledever in Thape simpral Murches from birginia to the Wiast af cirmentina and athore pretis of

 in the preface that bulerer was drisen ont uf Virerinial hy ill-treatment from that phalace-that he made his anduantance in Maryland, and imbeed him to write this troative as a vindication.


 noteworthy as the thot impertant repmentatise of the
 was the hest expmont. Athactiner to prowro tha jumtaral mamner of the frevious perion, in antannomism to the grow-
 in all the qualintmeses amd pervor-itios at the dariyine


























 and he was imprisumed at dotroma 1mit-iti, allel which lai
 tion to the l'ruscian duswrament. Whila in prison hat wat


 1). in Siwitgerland, Jnly ex, 18!4.











 party, and ridienled in the chambre an at erneral withont





 tion of lsty. He chereked the phans uf the montarehiste and as Minintur of tha luterior, whe of the provinional gaternment of the rebullice he pht in praction his theory ut uni-





 with Maskini, Kosulath, ath? other revolntionary lomers in







livizad by P. M. colbs.














 inestediontso at valate oil amd tamin. Thes are thanght ter



















 and























 - नाIt of 1 hat





fromal the l'. -a, asml dumbit lion in













 und Timen of línjumin Framhlien (Vol. ii., 1s6id).

Lee ('uarase: suldier: 1 , at bernhall, Cheshire. Eng-

 hor: war in Brambork's expedition as hememant of the F゙n! - fourth lewiment of Britioh regulars, amd was wounded

 lioutanat-roblame his mondlesome diverstion. quarrelsnme
 has with lix promotion. Dla became later a soldier of for-

 Insomb motorions as a duelist. Ja 17a3 he went to North


 - hambolon: and in 1.36 wia tation prisones at Baskingrhler. X, J, It is mow eonsidered certain that while in

 innalumbintion waty lat the day. Jle was court-mar-



 minis. where he leal the life of a lumat. atme a dispexpectfal







 - Whandon froun a private ther: inherited a large estate



 - "f the cumbithe of the whole. ble rmadered imporiant





 inctorn in the mat aritionl times. Lictiving from Congress

 wheh ho dind mit hain lisure exept by a briel sorvice in



















Order of Corporate Reunions established in $187 \%$ and is sup－ posed to have received episcopal conserration umber the auspices of this organization．Wis momt innmartant worlis are The Validity of the Moly Orederes of the charch of ting－ lanel Maintaintel ame Tivelieated（1sa0）：The＇＇heristiaen




 Glimpses of the［＇usen（1sis）ape leeply intereating．

Revistil by W．S．］＇ERRY
Lee，IJarriet ：authom；h．in lamdon，Fingland，in laff； published in 176t a nowel in five volumes，The Errors of
 at later dates by twonther clramas and amother novel．She is best known as assuciatend with her sinter siphia in the an－ thorship of the Cunterbury Tules（o）vols．，17！ $5-150.5$ ），whe extremely popular，and reprinted in New York in 150． Eisht of the ten tales were from ler pen，the mont remart－ able being The Ciermon＇s Tale：and Kraitenrr．which sup－ plied Byron with the phot，the mathinery，and some of the language of Werner．I）．at（clifton，Aug．1，1s．）．

Lee，Ilevay：soldier：tha fathornt lobert E．Lee．soldier， and a distant relation of Richarilll．Lee，statesman；lo in
 ton in $17 \% 3$ ；in 17\％5，at the berinning of the lievolutionary war，was appointed captain of a comphay of Viraniad（at $\boldsymbol{v}^{\circ}-$ alry，and served afterward both in the North and South in command（as major and afterwart as lientenant－colened）of a partisan corps known as laes Lemion．while lee bimardf was familiarly known as Lioht－horse IIarry，lle becane renowned for boldness，activity，and edlefenes，and in the opinion of Gen．Greene dial more than any other man to ac－ comphish the deleat of the britioh in the sumbern states． He retmrned from the army som after the battle of Eutaw， in which he distinguished himstlf qreatly．He was in Con－ gress in 1766 ；was a member of the Vireina convention of 1888 that ratified the Federal Constitution；was Govermor of Virginia 170？－95；commander－in－ehiel of the expedition against the whisky insurgents 17！4；amd agrain a memher of Congress in 1709 ．In his celelrated eulogy on Wrahinerton， prepared by direction of Congress，ocemr the words，＂First in war，first in peace，and first in the bearts of his eonntry－ men．＂In 1809 he was confined for debt in suotsylvimia co．，Va．，and wrote his Memoirs of the Mur in the Southern Department（1809）．In 1814 he was in Baltimore，the guest of Mr，Alexamder C．Manson，a Ferleralist，at the time when the house of that gentleman was attacked lyy a mob．Gen． Lee took part in the defense of the honse，and was after－ watd put into the city jail for wafety，hat the mob entered the jail，and killed or ceruelly maimed the whole party．Gen． Lee never recovered from his injuries．He went for his health to the West Indies，and died on the return journery， on Cumberland island．Ga．，where he was the gruest of Mrs． Shaw，a daughter of Gen．Greene，Mar．25， 1818.

Lee，IIenry Washingtos：bishop；b，at Hamden，Conn．， July 26,1815 ；received leacon＇s omders in $1835^{\circ}$ ；in 1840 be came rector of a chureh atlsurimeffeh．Mass． in 1845 as－ sumed charge of St．Luke＇s whureh at Ruchester，N．Y．， where he remained till 18．）4，when he was chosen lbishog of Iowa，which position he lehe at his dwath in lowempurt．la．
 charges，sermons，and whlreasus．［He compiled a Mhanul of Famely Prayers，and wrote several books for the roung． Ile was the founder of（iriswold（ollage at 1）aremport，and by his exertions the episcopate funt of the liocese Was en－ dowed and the cathedral amil hishors house erectent．

## havised by W．N．Peary．

L．ee，Juther，1）．D．：b，at Sehoharie．N．V．．Noy，：3）， 1800 ；juined the（itnesee enmfornoe of the Methodiat Epin－ copal Charch in $1 \mathbf{s e n}^{2}$ ；lectural in fow of of temprance and the abolition of slatery，lemine moblemb seberal timss ；be eame agent of the lassumbedts Anti－starery sumbty in
 copal Charch in 1at？；joined the mow buly of Wesleyan Methodists；hecame partor in syracump $1 \times 4.0$ ：was presilisht
 and editor in New Yurk of The Truo Ilventret．In 1s．
 Mich．；resigned and spent arberal your in ohios fendane in
 Detroit conforence of the Methodist Episcolal Church in

186\％，of whieh he remained a momber butil his death at

 of the sonl（1s46）：Shewery Lixumened to the light of the




 bonghan，and after hiv return mateded with a comptory to join Brathlock，who rejeretal his motere with inn ill－julawl expressiun of onntempt for tho frownmialo．Je was eaty chusen tu the llanse of burgases．Whate he at onere fank is emmanalins pusit ion un than nule of p＂pular righta．Ihe was




 protion of the time in the fieh at the heall ull the militia of Westmorelam County．Jow was atman fron Virminia
 istration of Washingron with zeal．I）．att（hantlly，Va， Jume 1！1．17：4．He was a mann of ambable amel noble ehar－ acter，of commanding presence．excellent abulities，and seld－sarrificing patriotiom．See his Liftend Correspondence （182．），by R．II．Lee，his great－grambom，
lepe，Robert，I．J．：prodeler and author：b．at Tweed－ month，Surth Durham，Engraml．Sow．11，1sot：entered the U＇niversity of it，Andrews in 180t：was ordained in the Chureh of coothand in 150 ：was minister at Ammath
 of the Lonttish Chureh，was apminted by the town ennucil of Ealinbirmi to the batorate of the Old（irey Friars fhoreh．In 1844 he juhlisheml a trambatim，witla a prefate， of The Theses of Erastus tonehime Enfommurication．as a reply to the writers of the seewsims＂hamel，who charged the adherents of the estahbishment with Erestianism．In sti he became Regius Pruftesur af liblical（＇riticisun in the University of Edinhurgh，and in 1A．jt gublinated the great work of his life．The IIvly Bible．with about bueno Marginal Referwnes and Farious liendings．revised and improntel． In 185a he pmblished a volume of lbugers for Publer thar－ ship，alll！in $1 \times 64$ The Reform of ther（1purh of Bcollame in Ilomship，foovernment，und Ihertrine，in which lue discussed liturgy，pestures in worship，justrummental masic．amb the propriety of ohservinit eertain festivals ant liats，with a tenchene toward bringinar the（＇hurel of seotand into Erater hammony with the ame＇Jle（ieneral dosembly of 18（bi）－64 reproted favombly upon these views，and on Apr．20．Difit．an orean wias first nemed in his churely of Grey Friars－an event which mathed in era in the ma－ tional chmed．The action of 1 s 64 was，lowevers，reversed by the Gencral Asammbly of 1665 ，amel Itr．Lu世 was prepar－ ing to contest his favorite views hefore the civil courts when lu＇wastateked with paralysis，and diod at＇lomenty．Mar．14．
 party in the sentinh Church．See his life and litmenins，


Lea，lhamert Ebwarn：geuctal：smof Gen．lleniy Lee of the lawolutionary army（light－hane llarry）：＂b．at
 \＆ralnated from the $[$ ．S．Military tembemy at W＇est Point
 employed in the most impurtant hation of has curpo in the mupnerment of harlurs and navigutime：was fromoted raptain uf mompers in ds： first chofe emsinper on the stanl of（inu．Sontt：won hinh distimetion，amb wat romardal att the eluse of that war as the one officer best fitterl to surown sont an commander－in－
 tembent at West Point Dilitary Dombuny；Waがpommond

 in 1sbt．Ito was affered the（anmmand of the Fewteral army









M：n．aー：Janntul．

























































Summine ap，it may be sam that the Gettyshare cam－ fand wam excoten by lat with a materly knowlelge of （hn thator of＂prations，unsurpased edtrity and secrecy of moswhent，what all pamithe cate of his cormmunications，


 Wha，mothomp was made to attak laces amy resting on the halndan fur ton monthe la the epring if 1864 （ien． diran，wht 140,000 mest，who had wintered N ．of that －Mam，mosed ancon it and was attacher ly late in a wood－

 Foblat formor，intlicting heary lose．Foiled in the Wider－ mas．（ivan mowe en the right thank of the Confedernte

 1an＇s fuation was impegnathe：In the aggregate in the thirt wenk，his hase wore mere than f0，400 men．Making
 at the Xinth Ama，Mar 21 ．liw－enfored hy Smith＇s corps． and movine for turn the（＇onfolderate right，Grant met his fou at lahd lantur，the sepm of Mechellan＇s defeat in 1862. Jum ：hat andent the conderate lines，and was repulsed wull prat bas．Lee＇s cavalry also did brilliant service in this rampaign．

Ifter Crant＇s defeal Lee detarhed Early to meet and de－
 work which he aterniflishoh，am！was soon on his march antom the Potoman th threaten Washington．
lan phand on to 1＇etersharer，and on June 18 repulsed （irmot：－fores，which Reamectard was holding at bay against heary mhds．
oh that day a hew campaign of 300 days＇siege wasopened． Buring his gryion were fought the bat the of lerusalem l＇ank Linat，liurares Mill，lieamss station，sapony Churel， Dinwidle Cont－lonse，the（rater，and others．Lee＇s lines of 41 milnes lumg were held lig hess than 40,000 men．They Were bokm on Apr．1，1N6．＂After a smoms disaster to the fomes mulder Pickett on his right at Five Forks，lee with－
 miscing his supplits on roufe，after sewrad booly eneoun－ turs．his infantry having dwindled to some 8,000 muskets，
 H．atvisel］his men to acecpt the situation，to go home， and to be gond citizens．

I shon time after the war Lee accepted the presideney of




（Gurles S．Vexable．
Lare Sumbe ll．D．：Jolirew seholar：b．at Longmor，
 －truction at a chatity sthool，and was at the age of twelve appontien than carjenter．While latoring at this trate he
 and at the at of thirty wasmabled to enter Guen＇s college， fambrider，in a stmbont．qraduating in the eourse，taking
 of Trathis，and lidgias l＇ratessor of llebrew in 1831．Ite publisthed a Ihrbou firemmur，which had a wide circula－ than in Sinchat and America（1s：30）：translations of the Trutels of Jon bulutn（1－3：3）：and of the Book of Job（1837）； and a Morem＂ud Énylish Lericon（1810）．1）．at Batey，

 b．in citalford，Va，about 1a：of was third son of Kichard
 tha fimbure of the fanily in America，who as at cavalier



 What of tho commit：atm his commission as ervernor hat fort hers mande when whe bien in liog．He had married Ilamath，dampher of（ank lhilip，ladwell．a member of the ＂namit，and ley her had wix sum，ill of whem were distin－ Enthed for their fuhla sarvere durine the firvelution： Philip Lulwell，a manture of the conmeil：＂Thomas ladwell，

 madnan of the judge ef the suprem Comrt，died som after，
aged forty-seven; Richari) llenry, Franels Ladiatmot, and
 Va., in 17:37; was agent of Virginia in Enerband: reatod sheriff of London in 17\%) and alderman in 17.5. Whan the Revolutionary war broke out he retired tor France: was alpointed by Congress commerrial arent at Nontes in $1 \sim 2 \pi$.
 Hague, Vienna, and berlin, but was recalled in liag. W. at Greenspring, Vil., Iune 2\%, $174 \%$.

Leech [MI. Img. lrche, physician < O. Enar. lirce: (). II. Germ. lähhi: Goth. lekeis; ©f. O. Encr. liencinn, hisil: Goth. lētinōn]: any one of the members of the ardar /lirudiani. Leeches have an mongate lattenen boty (nearly cerlindrical in a few), terminated at either end by a sucking dish. The body is ringel externally, but exeejet at the anterior and posterior emis these annulations are more momerous than the internal segments. The month is in the center of the anterior sucker, and in the jawed heches (tracthobolullide) it is surrounded by three radianing jaws, each of which is double, the halves cach resembling a segment of a circulat saw. By means of these the dereph makes the incisions through the skin which were so familiar in the days when blood-letting win* regarded as a jranacea for every ill. The alimentary canal is saceulaterl, the sucs corresjoniding to the segments of the body, and the vent is macerl above the posterior sucker. l’aired exeretory organs oceur in each segment, alternating with the digestive jouches, lont the buly cavity (carlom) is greatly reducel. The nervous system is much like that of the dimelids. Two kinds of sense oremme occur ; eyes varying in number, njon the anterior summents, and correspondinu to these other vogans, possibly for taste or smell, ufon the rest of the buly. 'l"he sexes are united in the same individual. The order IVirudinei is sublivided into Gnathobdellilee and Rhynchobultlidtr, accordingly as jaws are present or absent.
the last time besirfa a lrawing which ("ande ont in l'ureh

 Comol and in part The rhimex. Thep ('richel en the dearth.



 signs in lithenraphy, wh which the beat in 7her (hilhown



 It is rather as a shewal and yot very kimlly and nhtimiotio

 than ('rukshank, bor wan lat so mroat an antiat in black and white as (Tharles Kome. llis marit is ?n'euliarly that of that cluse student of human mature graferring its inure kindly and pleasant siles, but wajable of indignation mol cont tempt. as in his For-humters of the old selemel in The Iltustratiol Lumbon Neoses (1sisti). and in the Bull P'ight . . with
 enjoyed landseapes and many of hos designs show a remark-



 ly Frith (3 wh. 1801).

Lecerhburer : borough (incorporated in 18.j1) ; Armotrune Co. I'a. (for lacation uf connty, see may of I'mbsylvania, ref. 4-lib: wn the Ki*kimmetas rifer, and the Penin. Lail-
 ral-gas reqion, and has ? ralling-mills, "\& fons-mills, foundry and machine-shop't tin-factory, and carriase and waton factory, all nsime natural-mas fuel oll tainded from a well 1.200 fect deelt. There abe a chured$\because s$ solmol luileling that cosit $\leqslant 0,000,3$ werkly newspapers. and if cal taines.


Leeches are parasites, living nipen blnod or upon the mucus which covers the surfate of tishes or other atuatic animals. In France they were for a long time bred in pamis to supply the market. The medianal leeches (Mirudo oficinalis, $I$. medicinalis) will draw tivo or six times their wejght of blood, and when gorged can only be used again by remmo ing the blood by the use wi salt or by pressure. A lew leeches live in the sea: most are imhabitants of fresh water, and a few live on the land. "I'hese land-leveches form an intolerable pest in the warmer regions of Asia, and their habits have been deseribed in a mraphic manner by Temment and Haeckel. "They are active and alert, realy" to fasten themselves to any man or beast which may pass through the damp forests where they almumd.

The Ifirudine hare formed the hasis of many investigations, and the reader is refered to Leuckart's Iluman Parasites, Moquin-Tandon's Monographie des Mimudimés, and the japers by Prof. (', (). Whitman upon their strmeture and development. Inespite suveral lesuriptive papers, the American species are scareely kown. The Ifimulnei ldat. IIrudo, a leech) are olten callen I Fisenphori, in alimelum to their sucking misks; Smumisuymrin, wh acomont of their blood-sucting habits; or Bulellodret (tir. Bóédaa. al leech).
I. S. İivisisley.

Leech, John : illustrator and dranmhtman: h. in Landon, Aug. 29, 1sis. He stmbied medicinte hat had to mupport himself from the age of "ighteen or nindern, and hogan to do so ly lithueraphit , lrawiums, illustratiner loflls
 Brag. In $1 \times 40$ he braran to publish full-pare elohinge in Bentleys Misopllum, and this he emotimmel for beveral years, illustrating harham's Impuldshy Lequphs. Alhert Smith"s Adcenturos of Mr. Ladimoly, etre. Thate ware as good etchings as be ever pullishad. thongh aftomwat lie illustrated Thumba Jerrolds shilliug Jemmaint with the serials st. Giles ared sf. Atmess alul the 大itory of "Prather, and later still many etchimss allumard in Prmotlo s lach-et-book and surtees's varicus sporting novel. He whrled for Punch for twenty years, and latildown his fublil fur
 urbs, 2.800. EDMTOR OF "AMNANE."
Leech Jake: a body of water in the morthern gart of Cass co., Minn. It is about 20 miles loner, 16 miles winlo, ann] dis-
 river, Elewation, 1,330 feet. It is situated in a well-timhered reqion which is inhabited hy the Leech dake ludians, a bumd of chipuewas.

Leeds: town in the Wrest libling of Yorkshirn. Fingland: the chief seat uf the womlen trate ol the Crited Kingelum:
 and int milen Wh, ut llull (we map of linglaml, ref. 6-11). It is a jarlamontary and municipal bomosh, amel at rounty in itself, amb is as regaris pepulatiom and induatry, the [rine bablown in Vorkshime. It is the assize town for the Went latiner divinom of the Northeasmen eiremit.

 is divided into sixtmen wardo smu fur parliamentary into five divisions. enth of which roumbene mombur to the
 The whar part - wif the town lie - of the dire amd inelande
 beck, the frincipal public hadalines. shapes amb riwidences of the wotl-turda heing on the nomth silu of the river.
 an "pron -pace tuthe $\mathcal{N}$. Wh.. inn! lanauthay lark, whe ut the











































 romon，ant a lihrary of 20,000 valum，














 Dther thef marker－are the framerty of the rompration．






























lamd．Whate ami sondand，while by the Ieded amd liver－
 than ont tha wher there is casy wows by water to liverpool ：and lhall．


 Horive．Durane the rivil war of the sevententh centary it


 Handealdth，when the lown wan alronty moted for its cloth－ trabe．It mado great promess during the eighteenth cen－ tury and during the nimeternth became the tilth city in size in Jinerlant．


 num（ancred by the borolagh was only 53,16 ）．See Baines， Gorkhire l＇fat and lrasent（1NT1－7T）Kielly＂s Directory of the Hrat Kiding of lonkhire（1893）；local guide－books，par－ lamemary jaurs，ele．

F．Esplivasse．
Iterh：iown；in the eonmity of stafford，England；on
 lamb，def． 9 （i）．It has mannfuctures of silk and agricultu－ ral implomats，amal many gowl educational institations． Its ehurell，dediouted to St．Edwarl the Confessor，dates from the hater part of the twelfth eentary，but has under－ Wont much remmeliner．Jn the nojghorhood are the ruins if＂the（＂intercian monastery lo lit Croix（Dieulacres），buit


Lexer，hitr：fown in the province of llanover，Prussia，on
 limpire，r（l．：3－b）：has mannfactures，and is important for ship－builling and（ommerca．Iop）．（1800） $11,075$.

Leviburge tuwn ：capilal of Lomiomn co．，Va．（for loca－ tion of tommy．mon map of Virginia，rel．4－11）；on the Rich． and Inamille Railroml： 2 miles W．of the Potomac， 38 miles N．W．．ff Wrathingon．It is in an arricultural region，has an chmmbat sulply of water，and contains a school for girls．a rraded pulblic sclond，uletric－light plant，steam saw amd jaminer mill，and twa workly nowspapers．Near the town is the hatlle－tied of lmalls lanil．Pop．（1880） 1,726 ； （ $1 \mathrm{~s}:(0) 1$（fis）

Fhtor of＂Washisgtoxian．＂
deeser．lízer，Isase：Nebrew scholar；h．in Nenkirch， Westplatia，lere．12，1\＆Ot；removed to Richmond，Va．，in
 （ame rabhi of the fuineipal synagogne in Philadelphat，and Wrote several works relating to dowish history and doctrine， anong whieh ate The Jetes ent the Mosaic Law（＇lailadel－
 the suluert of the Jumblisligion（1s36）：Iorfuguese Form of Iraypre（Is：3）：Deseriptiw，（ivagraphy of I＇atestine，from the Hehrew of hahbi Juseph schwatz（1850），and a Trans－ Lation of the Inoly srriptures from the Original Hebrew
 （Jcridmot and Amurican Jumish Aducute；retired from the miniaty in lxit．In．in lhiladelpha．Jels． $1,1868$.
lievised by S．M．Jackson．
Leptónia：village（incorporated in 1s（ia）：Columbiana co．， 1）．（fur luatiom（if rommts，sue map of（Ohio，ref． $3-d$ ）；on the Firio and tha l＇emon．rithays：（ion miles N．W．of l＇itts－ bure．It is in an acricultural amb combining region，has I hlast furnares，rolling amd phang mills，extensive coal





Fimtor of＂Reporter．＇
Lerotwarderl ：fown：in the province of Friesland，
 It is 10 milus forn the sods，hat in tha fommenth century it
 fillal with hatisof sand and mad ant herome solid gromad． It has，however，wisy（atmmondeation by rail and by canal

 for trade with the I＇sitad K゙inghom．＇I＇he rity is interseeted






Leenwenhocck, lï'wen-hook, Antonies, won: microseopist; b. at Wellt, Netherlands, Unt. D4, 16:32; went in his sixteenth year to Amsterdam, and entered a merchant's oflice but returned after the lajse of afew years th his mative city, and devoted himself exclnsively to the st uly of nat ural seifnce. He manafictured optieal intruments, epperially mieroscopes, and these he applied with the most brillimit success to his researches in physiology. His principal aiseoveries were that of the rell indobes of the bland in 1003 , that of the infusoriat mimatcules in 165.5. that of the sfermatoma in 167T, and that of the capillary circulation of the blond in [6\%O. The last discovery hillem a yal, in the theory of Harvey hy showing that the blowd pasese from the arteries into the veins through a network of extromely minute vessels, the thin walls of which allow the fluil] to tramsude into the tissues it traverses, and thus to furnish them with the necessary nutrition. Another of his grat diseoveries was that of the Rolifers. He was the tirst to reeognize their peenliar power of resuscitation, even from a state of being completely dricd np, whenever the water neeessary to the maintenance of their vitality was furnished to them. By these discoveries he attracted gemeral attention, and extablished romections with all learned men and learned sucieties of his are, such as Leilnitz, the lioyal society of London, and others. Dlis writings were puihished partly in hook-form at levden, partly as communications to scientilic journals, Actie Emblta, Philusophicel Tronsactions, etc., and collected in $1 r e 4$ in 4 vols. under the tithe Opera omnia, sue arcana mature ope exactissimorum microscopiartum detecta. D. at Belft, Aug. 26, 1\%:03.
Leeward Islands: a entony of Great Britain: in the West Indies, N. of the Windward islands colmy. The endony was created in 1sid, and embruces the istands of Antigua, St. Kitts, Dominica, Dontrerrat, and the British Jortion of the Virgin istands, with their dependencies (larhmda, Redonda, Nevis, Anguila, etc.; see under thrse names). The entire area is 701 sif. miles. Pop. (18 $\$ 1$ ) 120.2:3s. Antigua is the seat of the central government and the residence of the governor-general. There are five presitencies, corresponding to the principal islames. The legisative comcil (ot ten elected members and ten nominated by the crown) meets once a year.

Herbert II. Simtin.
Lefebure-Wély, le-fábür'válece, LontsJarques Alfred: organist and composer: b, in Paris, Nov. 13, 1817, and entirely edneated there. He was one of the greatest orgimplayers of the French school. Held several fusitions as urganist, but is hest rememberel as organist of St. Sulpice. 1863 to 1869 . He was a member of the Legion of llonor; and a linight of the Order of Charles III. of Spain. ILis compositions inclule an opera, a cantata, three masses, three symphonies tor orchestra, upward of 200 pipees for the pianoforte, and numerons organ pieces in all styes. 1). Jan. 1, 18 \%o.
D. E. $\mathrm{I}_{\mathrm{ERP}} \mathrm{EY}$.

Lefelure, le-färt', Frascols, , osepa: Duke uf Dantzic, marshal of France; b, at Ruffach. Hace, Oct. 25, 175.: culisted in the Frenclı guarel Sept. 10, 173, and dint inguished himself by eonrage and valur on several oceasions huring the Revohtiom. In 13 N he was male captain of the Thirteenth Infantry regiment, and his talents now developed very rapidy: in 1 Io he was made a brigadier-mencrall. Having been appsinted commander of the Seventeenth \$ilitary division, tos which Paris belonged, he supported Napoleon on Nov. 9, 1209 , and was made a marshal of France at the estahlishment of the empire. In the war against l'russia he atso distinguished himself, especially by the siegt and capture of Dintzic (May 26, 180\%), whenee he derived his title of duke. His most hrilliant exploit was his campaign in Spain in 1808. He took Bilban, and defeated the British under Bhake on Nov. i. In 1sit he commamded the loft wing of the army ofrusing the invasion of the allies, Int after the abdication of Napoleon he summitted to the burrbons, and was made a peer of France be Louis AV'lll. Jume 4, 1814. D. in Paris, sept. 14, 1820.
Lefebvre, Jules Joseph: figure am? portrait painter; b. at Tournan, France, Dar. 14, 1834: hecame a phill of Léon Cogniet; was awarled the Grand Prix de Rome in 1861; metats, Salons 1865. 1864, and 1870: first-class medal at the Paris Exposition 18 sis: medals of homor, silon 1sis and Paris Exposition 1889 ; beeame olticer of the 1 arinn isf Honor in 1578 . He is one of the lealing artists of the French sehool, and his work is distinguished hy fime drawing and goonl composition. Nymph fand Bucchis ( 1 sith) and Truth (1870) are in the Luxembourg (iallers, laric. (Huw of
his most important compositions is Jena Surpmixed (1sia). Studio in I'aris. Withlam A. Cofris.


 Naphean at Marengo: distingnished himadf at Aumerntz
 began the siege of saragam in stan; was takn prixomer by the British: escaped from Findand: tom at prominent bart in the Anstrian (140!), linsian (1812), and German (d.18) campaigns, and in the dofense of frane from inva-
 at Fleuras and at Watcrlon; was chulamal to death by the royalists, the cacapel to the U. A.; jomul with Baran Lathemand in the attempt to fomm a mheny of French reft gees in Alatama; was in en preopenlene with N゙ipolenn fur the purpose of effecting his resene from st. Helena; received 150,000 fruncs by the will of that monareh, and while returning to Europe was lost at sea near linsale, freland, Aır. 22, 1829.
 BER, from the Latinized fom of his name): (thasical scholar: 1s. at Cam, france, in 1615: Was chanatel at the deanit Col lere at La Fliche, where he devoted himstr especially to Whinsumy and clasical fiterature. ('arthanl hicherlien apfunt of him inspector of the press of the Lourre. After the death of lichelien his salary was irrernarly paid, and he Was ohlifed to sell his-bitrary. Having resigned his jositinn, he retired to langres, alterwatd to l'renilly, where he embraced lrotestantism; was som aftor apminted jrufessor in the Reformed Acadeny of simmur. Ilis works were chiedy anmotated editions of the Masic anthors-6. if uf Lamgimes, Elian, Lucretius, Horace, I'hatrus, Terence, Anacreon, Siambu, and several others. He transtated aloo into Latin iambics the Fubles of Lokmon (Sinumur. 1673 ) and wrote lies des fötos groes and hithone pour commencer les ITumomités grecyuts ef lotins. 1). at sammer,
 whm was Madame Dacier. llis Life Wain Written by F. Graverol (Paris, long). lievined hys. M. Jacksos.
Letkosi'a [= Morl. Gr. Aevкoбia. 'The am, (lat.) Lenco-
 (q. v.).

Lefort'. Fraxcols: soldier and statesman; h. at Geneva in 1650, uf icottish descent; enlisted at an carly are in the Swiss guarl in the French service: in 1694 entereal the service of the Netherlands, and distingnishod himself at the siege of Oudenarle, and went in $160{ }^{5}$ thronsh Archang.l to Monenw, where he first held a $]^{n}$ sition as secretary to the banish ambaseadors, and then hecame al captain in the hasNim army. In $16 \mathrm{~S}^{2}$ he berame atpaintid with the ezar, leter the Great, at that time unly ten years ohl he became his teather. som also his friem, anid alter the revohtion of 168., which made Peter the cireat sule pular of hinssia, and in which befort had done the czar great vervict, he was the chief minister. Tor his induene may the asoribent some of the most important and Inetheticial numares of Peter's reign. He reorganized the army wo the model of the armice of the great powers. lle directed the formation of a navy, which with the now army prowe its utility at the takint of Azow in 1696. He prometed the religious tobpration of formeners, thus unening kusia to emigrants from more enlightened states, and he encouramed the policy of inducing the Rassians to visit other enmories in the interest -f their own edncation. Ю. at Moscow, Mar, 1\%, 1699.

Revisell ly F. il. Colby.
Lefuel, le-fï̈el'. Hector Martis: architect: b. at Versalles, France, Nor. 13. 1819. He was a student at the Fende des beaux-Arts and reetived the great grize of lemene amblivel at home till 1s45. H1, was architect of the mildinge of the national porcelatin-factory at siceres, of the palace of Dendon, aml in tharge of the shatean at Fonfainchban, where he built the theater. On the dath of Visenti he was employed um, the new buidings enonerting the havre with the "Tuilerion, amd ho was basy with thaspe from 1854 until their prattical comphotion atml until the fall of the empire in 1850, so that the mose prominm and almired haildings of that gratu wen his werk. Ile was commander of the Lerion of lionor amb a member of the lustitute. I. Dee. 23,1880 . Litosphititikgis.
Lagaty [from Lat. legure depute, apmint, apmint by will ; ef. legates): a bequest or gift of jersmal property

atherd he han in form an tor chane its indentity as if it were




 amore. Thus if the teratur somid bequath all his furniture in binis stmand in a parlienhar house, and afterward
 would mat the the ean". howner, if the gowls were removed Le reann if a madela mererney, is to aye them from fire, if if the ramesal were afferal hy fram or without the
 he portial, an wher a purtinn of the property hequeathed is frant anmor the asede of the domased, bat not the whole.

 the rula: of andurnion, thmomative legacies tiffer from thone whioh are sperilic. If the fund out of which a demonat tative Jemary in tob pail is mot in existence at the testa-tor'- dath, flic lugate will have a valid cham for satisfaction mit of the wincrall fumb if asets, ant the bequest to him will rank amoner the gemeral keqacies.


 Logaty to a "hild or grambhild and afterward in his lifetome given a pritin to or makes arowision for the same whid or grambhid. whout expressing it to be in lien of the learab. If than partion or provinim le equal to or excoen the amman of the lequey, be certain and not merely
 lugiers, it will the demed a satisfation or extinguishment of the legace. This is on the grommb of the presumed intention win the part of the tostator to sulnitute one portion for mother which he has already mand.

Lamine are dithugurhed with reference to the acguiremont by the lavate of his right of mojoment into vested and witingent. A legary is wested at the time of the testa-
 right of parat or futur enjowment. It is contingent when
 enntinemer. Thus a lesacy given wa man if he reades
 Int if it le given fob proyhte whan hecomes twenty-one, it vast at the tootaters dath, the right being absolute, thand the time of enjoyment is deferret. A conditional haracy is a berpuest whe exintrmen mepends upon the hap-

 (ontherent legay is a form of combitional legary in which the wiline of the wtate indemememt mon a condition prec(a) An. A camulatime legary is one alditional to a previous lumey gixal in the same will. The gremern rule of construction which in follewed in determining whellatr it was the in-
 live ( $\because 0$ that the lagater in (atithed to baith) instead of merely
 is thementhed, is that when the testathe has not plating deWarel a diferent intention: (o) two or more legacies of the
 form in the sam inotrument ammont bint a single gift :
 manes. or of the ambe amont in different instruments, will




 buen frovidul ley statut, that al gace given to any subsuthore witnucio a will hall twe wid. This emactment has


 ly thernivin that if the withos would have been en-





 pay for har velue uf masom lur the textatur's soul. etc. For


charitable uses in grmeral exists. unless comfroltal hr statute. (See Thusts.) In this way legabies may be griven lot trateres, though not ineorporated for charitable usis. forporat inms may take property by bequest, sof far as is emmsitent with the genemal parposes for which the were formend and the provisions of their charters. The rírlit of at conporation to take persomal proberty hy bequest mast mot bee contommbed with the power to tak* land by will. (hee What and corporation.) In rearart to capacity to make a will and (marvey legacies, see Will.

Payment and its Incidents.-(a) $\mathrm{I}^{+} 7 \mathrm{e}$ n pelyublw.- It manmon law, leqacies are nat paybhle until the expiration of a year from the time of the testators ateath. Thio furion is allowed to the executar to asertain the nature and valae of the property, to conlect the assets, to determine the extent of the testator's judebodness, to satisfy charges agranet the estate, etc. In the [ C .s., where the subject is frempently rewulated by statute, the same limit is generally anloptemb. It is a general principle applieable to all legacies that the leontee does mot become fully entitled to the berpest, so as tu obtain a right of action in a court of law until the assent of the exeeutor is obtamed. Me can mot, acourdingly, take possession of the legracy without such assent, aml if he does. may be sned by the executor, who may meover the value of the property. 'The assent of the exeevtor may he express or it may be implied; as, e. g., where he acquiesces in the taking of the property by the legatee. This rule, however, huos not affect the right of a legatee to proced to recoser his
 interest runs.-As a general rule. interest is to be reckomend upon the amonnt of the legacs. for the bene fit of the lewatere, from the end of the year when the lexaly becomme payable: but where the legacy is given in parment of a debt due, it will bear interest lrom the death of the testator. Sos whin a bequest is given by a parent to his chilh by way nf manntenance, or by a hushand to his wife in lien of dower, interest will run from the time of death. (c) To whom puid.If a legaey, be given to an infant, the excentor will mut he justified, by the mates of common law, in paying it fot the infant, or to the father or to any other relafive of the infant. without the sanction of a court of equity. If payment should be made withont such sanction to the father or retative, the execnor miant be compelled to pay the lumay again to the infant when he became of age. 'This sulojewt is now larigely reandated by statute, as in Englamd, where it is provided that the exeutor may in such a eave paty the Jegacy into the Bank of Enstand. A lectary given to a married woman must at common law be paid to the hasband, unless it be given for the wife's arparite one. This is true, even though the hushand amd wife are divomod a mensa el thora; but eourts of equity may compul a husband, on receiving a legacy given to his wifo, tomake a suitable provision for her support. Entil such mipurnt is por vided the executor may decline to pay him the lewity. In a number of the L. S. it is provided by statute that married women may take property by berpuest in the same way an if they were single. lugacies givento one bersin in trust for another should reguharly be paid to the truster. Whert it legacy is bequeatled by a tewator tor his cremitor, it is al general rule in equity that it is to be beemed as wiven withat view to the satisfaction of the debt, if tha baluest lue eymal to or greater than the ammont of the blobt. This rnle. how ever, is not favored, athl will not be aphliod axopht malder these special ciremontances, aud when the lesaty is wit the same general hature as the debt.

Liability of I'aid Legeteps in Cuse of Iteficienry of Assets. -If after the legacies are paid by the exeentors delits aresuls sequently proved of which the executor had no knowledge, and if there are no asoets remaminge to kinchatge them, hat may briner a suit in epuity to compel the begitees to refinm
 dently in paying the legueies. The residnary lesatee whand first be comperleal to defumd, and next the remerall legatoms proportionally, so far ats is nomesaty to satiofy the lobt. She if ome legatee remivel full payment of his hare amb it after-
 to pay all the beacies in finlt, the other beratem intay eome pel him to refund, so that all in the same lass maty Feceito propurtional amomats upon their respectiow shames. This would not le the case, howerer. if the insulficiener of anets were attributable to the negligence, defanlt, (1) miswmonnt of the exceutor, and the executor wonld himsill bembly liable to make up the befierency. If there be a montiument claim against the testator"s entate, the "xecutor may retain
the assets from the legatens, if mocessary, th need the de-



 domaty, the executar will be liable for the ratisfation of

 the entate of a dectased permm mant the pomemman within a short perion after the issue of lefter thatimmontary, if the uxechtor give due motica of himalynotatmont.

Jurisalietion in reguerl th letpores is valud in armerat

 the beduest invulues the exarution uf tran - "hatreed upn



 Itgacies the jurishliction of "mpity is "onewront. For the rules of law regulating diffarent slemite quantions remarl-


 H"ills; Redfield one Wills: Rapsel the Lequaciss; Redfied Che the Late and Preatice of simmentotes rimuts.


 commisifomed or acting as delerates, and esperially of ambasadors, of adjutamts or alemty fommamber of am army
 themselves and of the empron's prowimial governors]: in internatimal law, embasiy, the rieht uf locratime the right
 and powers of pablice envoss: and legath, the envoy ar min-




 amb thas were a lower grate of papalmons. latime bames of athy sort.
lievisell hy T. 大. Wunlecy,


 for several yoar he wat chanf secretary of the "ity ghemer ment. In 1.0 fit he wat criven emmmand of the expedition fitted ont by the vie世+M, Velamen, fon the ommamet of the









 have been origmatly abplied in the oreptesumical diateet to
 Writinge of religinus instration or edification, appointed to
 amb it therefore nearly eorre-pmuled in sienitication to the
 marrower sensi, one mat bear in min! lhat the term is aloo applian! to that form of tratition which the (ivmman exall


 geason of the predominatere of myla or fabuloms mbunture. the worl is further stretchad do induld any aceontht which




 poetry. amd whether meant for the var of t! Imblie ar for the tre of the monkinh sthotar.





torn the lowend is divided bybre intutwo chases：First．

the－ant ur mares in mantion－wheh are so hargely




 ty－are hat：that the were sureceded ly more formal wifute，which inchudel confosors amb fominders，bishops， mionnarios and hompatars of wery sort．An early ex－ anple is the widely rand litas．Mertini，besemens writ－
 the hivary of undieval biarope is comaned in the earlier
 satury whon hath tred his temelbers and frimds．Ilere the mimatome element－what we aill lemendary－is casily kept in Ho borkermund；fan as the liking for such literature inerame．live of hali－forgoten samts were composed in －What way that the powty of athentie hingraphy was ont－ witheal livthe walth of mimoulons details．The more ob－
 whelmingerembials．It is theroforevident that a general
 tha lerame is mat andy liflement，hat impossible．No one test of trath an the appinel to this anmous mass of liturature from wey time and rlime of meliaval Europe．It is a matter of hiourimal ritionom，of minute investigation and sifting of hatils．Hinory and hograhy of modothed trath，minalderatmen tradition，factshistarted hat not utter－
 －with all these derees of truth and error must the eritic rakn．The unly prachal mondern interest insolved in this reritici－m is comexted with the osensional camonization of a aim by the＇lura of lame，when the evidence of mimeles wrongh on the intoretesion of the emolidate is sumitted （1）a forat of cartimals opecially named for the occasion， and reprerted an the the jutiff，who tinally adjudges nom its sullichery．and in the aflimative ase pronomees the allwal facts intidhinhed，and decrees，first the heatification， and later the enollment of a new sant mon the calendar． It in anmet jmes hard tu distinguish the line between sacred ant secular legemb，as in those of the lloly Grail，where le－
 and the heathen havinitus and demigods who erept into medi－ aral herature，amd oftern aprear in the most atsurd dis－ guine Fimally，we have lareck with many short stories， formbles and cyen hower narratives which abound in our
 finn from the ancient literalure of the East．In some cases， ton－W far as a malel is concerned，llieronymus was under
 the Chriatian literature of the Bastern Churelo．
＇Hh Lit rature of the kegme is if vast extent．Conspient
 Berhs．Semmom，setu Historial Eremitica（hust edition，that If Roweyde， 1 bol．fol．，Antwer］， 1628 ；the widely ciren－ latind Lefinder Auret．or Mistorty Lombardica one of the mant injuntant luaks in ath the Midhle Ages，compiled by dandme de Vortrine in the thirtenth eentury，and first printed in Paris in 1.154 （hy 1500 sornty－one colitions had
 annmonly known as tha（imeral Leyphe（first jublished in

 and in lampentain editions，ame is the surce from which mont mather colloctions of leqems have been drawn；and the Arfa diencform，colited hya Jenit association knownas the ballamian．from the namb of its fummer．Of this vast
 many an sixty－ane folio volumes．Dherover，there is mach matirial in the historins of sparate organizations such as the limediatines．In the tonglish language there is a

 the Wath century．abd a momber of harnds and legendary atmons．Anwn through the fiffentla rentury．An Paghish Trm－lation of the hegrnte Auret was male in 1438，and
 ＂tieal hathd hagin with those attributod to Conewulf in the vithla expury w．\＆．his Elent，or The Finding of the （＇roses），and make their way into modern Ronglisi ditera－ lare sut IInstman，Allinglische Leqenden（lleilbrom，

an admirable essay on the legend itself（p），iii．－xxxix．），and an exact account of the different Enorlish and scottich log－ ends（1p．xl．－cxxxviii）．For the eremral literature of Euru－ nean lusends，see Ebert，Allgempine（iesehichte dor hilhra－ lur des．Mittelalters im Abenslume（3）vols．，Jeiprig．1sit－ 87，and since issumd in a seconel editiont．and Milman．Mis－ tory of Letin Christianity．For a clisensimm of the legends from a philosophical point of view，see 1ueky．／Vistory of Kationalism in biurope．Many legends have grouperl atront the Viran Mary，amid there is a collection of thene in 10 vols．，the I＇ortugnese samtuario Marimon，170：－3？，whirh gives accombt of more than 2.000 miraculous images of the Virgin in the Peninsular possessions of Iortural alone．It would leal too far to attempt to trace the legensl in later literature ；a some example of such a narrative，treatml lonth by the poet and by the hallad－making publie．in fomm in the Prioresses Tule of Chancer and the pojular hathul of sir Hiugh．

F．15．（femmere．
Legenda Aurea：see Jacobes de Voramine．
Legendre，le－zhanmidr＇，Anrien Marie：mathematician b．in Paris in 175 ．Le early distinguished himsolf as a suceessful teacher of mathematics in the military selond at Paris，and before attaining the age of thirty marle his drbut in the world of science by one of his finest memoirs－that on The Attruction of sipheroids－bs which he gained ad－ mission to the deademy of sciences（1783）．Inis efually important investigations of the Figure of the Phmetw．con－ sidered as made of spheroidal strata whether homogemenns or otherwise．soon followed，and in 180.5 his Seu Hethod for Intermining the Orbits of Comets．Ilis Eiltments of Geometry has been translated into all languages，tum has beeome a classic in that spectes of diterature．He assisted de Prony in the calcalation of his great logarithmie tables： invented the rule of the least square of errurs；was anthor of a work．the Exprfices sur le Calcul interral．and of re－ searches on the Eultrian integrals；both of which were developed into the great work of his life－the Truité des Fonclions elliptiques．D．at Autenil，Jan．9，1833．Let gendre，though inferior in range and power of intellect to all of his three great contemporaries－laplace．Latrange， and Fuler－was nevertheless inferior only to them；and！ was one of that age who most powerfully eontributed to the advancement of mathematical science．According to Irof．Forbes，he was the first to imagine and employ those artifiees of calculation known wsually by the name of La－ place＇s functions．When toward the close of his life the dis－ coveries by Abel and Jacobi of the really distinctive char－ acteristic of elliptic functions－ heir periodicity－grave an unlooked－for extension and generalization to the applica－ tions of these fumetions，he welcomed them with a liber－ ality（says Prof．Forbes）＂worthy of all commentation．＂ Legendre＇s life，spent in privacy and strenuous derotion to scienee，was unerentful．Consult Yerhulst，Des Fonetions elliptiques，and Briot and Bouquet，Theiorie des Fonetions doublemenl périodiques．

Leger，Patl Lotis：writer；b．in Toulouse，Franes，Jan． 13，1st3．lle early turned his attention to the history and philology of the stiar peoples，subjects then little studied in Franee，but which he has done much to make known．In 186t he mate the first of his many visits to foreion comm－ tries，where he has been intimate with mon like I alacky， and he has learned nearly every language in Enrome．In 1869 he rave a supplementary course at the sorbonne；in 1871 he began to teach at the Eeole Sueciale les Langues Orientales，where six years later he was made full profesar； and in 1885 he was appointed Protessor of the Slav latn－ guages and Literatures at the Colleme de france．Ite teachrs also at the Feole de Guerre and the Feole des seiences ${ }^{1} n_{n}$－ litiques．Besides many contributions to magazines and pa－ pers，he is the author of Etudes Slares（1via）；Lat lussie tl
 2 d suries 1886）；Contes Slaups（1888）；Chronique husse lite de Nestor（1N84）：La Save，le Damube，et le Bulkan（1Nst）： La Bulgarie（1885）；（irammaire Russe（18゙8：2ll enl．1N6．a much revised and improved edition of the grammar of lieiff， by whose name it still goes）：Mistoire de lutriche－Honyrie （187s：Bl ed．185\％，an excellent short history whioh has been translatel into English）；Russes el Slumes（1s！u9）：Lat Littérature Russe（1s！）？

Legge，James，D．D．，LL．I．：Sinologiat：b．at Huntley Aberdeenshire，Scotland．Dec．20，181\％；educated at lingrs College and University，Aberdeen，and at the lljglthury＇l＇heos logieal College in London；went as a missionary to C＇hina in

1830 and sottled in Hongkong：roturned to fireat Irritain in $18 \% 3$ ，and in 1803 was made l＇rofessor of the（himes lan－ grage ambl Literature at oxforl．Ha las phbli－hod The



 90）：The Rellquens of（＇hime（lanilon and New York， 1 sष0）； Recurds uf ludhlhistic hingetoms（tha travils of the（＇hinese
 Oxford，18：11）；and sume minor works．
Legerett．Willeam：jommalist：b．in Nuw York city in 1803：graduated at Ceorgetown College in 1 sod ；was mid－
 $1 \times 2.5$ a voluane of purms．Lerisure／Imers at Sru：wrote for The Mirror his Talps by a r＇ountry bohombaster．and extab－
 ated with Wiiljam（ullon＇Bryant in the editorship of The
 in 1836 ：was appointed in 1 s $3: 4$ diphmatio ang tot formate mala，but died suddenly at Now Rochelle，太．V．，May g！， 1sis！．＇Iwo volumes of his politionl esorys wore published by Theodore Sederwick，Jr．，in 1Sto．

Leg＇lorn（Ital．Livorno）：a large maritime town in the
 （ser map of Italy，ref．4－（＇）．It stamhs on a tongree of land betwean the mouth of the Calambrone on the $X$ ．and the lowest spur of the Tusean Apennines on thes．； $\mathbf{6 0}$ miles W゙，ふ．W．of Florence and 12 miless．S．W．ol Pisa，A navi－ quble canal connects it with the Arno，whiclo enters the rea 7 miles $\mathcal{N}$ ．of the fown，and smaller canals intersect it in varions directions．There are two harbors，the ohl and the new，the latter－s．of the fommer and owerlooken by the large lighthouse－behige capale of recelving veswels of heary tomnage，anh even ships of war．＂lhe finst notions of Leres－ horn are of the ninth century，and relate to the buihling of a chureh there，but it hal little importance for a bong time． At the close of the fomrteently cantury it was mader the frotection of the French king．who in $1 \frac{107}{6}$ sold it and its territory to Genoa for 86,000 gold ducats．（ienoa ceded it in $1 \not x^{2} 1$ to Florence for 100,000 golel thorines，and this repuh－ lic，aware of the ralue of her new possession，spared no pains to incrase its prosperity．Euder the Merlici the harbor was improved，the fortifications were strengthenerl，and excep－ tional privileges and immunitios oranted to the inhalitants： religions toleation was also estahlished．so that murchants of all nations flocked thither．Toward the ent of the eigh－ temtle century Leghorn fell into the hands of the lerench， who inforerished it by forced contributions and forcend loans．from which it recovered lut slowly．The port was for a long tine free escept for roverument monomidies，hat since $186 \%$ it non longer enjoss pecial privileges．Notwith－ standing this chanse the prort is one of the mort frequented in the Adediteranem，and the commerce and gemeral pros－ perity of the town are constantly increasing：fine pullic and private fumbings are being evected；facilitios lor tommuni－ tation between its difurent quarturs are multiplying ；its suburbs are heing extended and emberlished ；and it in efory year more and more resortel to as a fashomable bathing－ blace．It has a beantiful cathedral and a costly symagogne． ＇lhe import trade embraces cotton，woul，cutlery，hariware， otc．，and colonial products genmally．The expurt trade is in silks，straw hats，borax，coral，and many of its own manu－ factures，which consist chiefly of oil，somp，tohacen，salt，ete．
 ports to ift $\ddagger 00,000$ lire．I＇op．（ 1890 ）is， 2 ，w with suburbs， 89.950.

Legion＂［Tat．legio．from legere to gather，collect］：a mili－ tary organization of the ancient Romans，combining all the constituent elements of an army and mambering from abont 3,000 to about 6,000 men．Sue Infantrs．

Legion of Honor．Order of the：a Freneh order of merit institutocl May 1！，180？（1！florial，an 10），by the liost Comsul，Xapuleon Bonaparte．The ortar has retecived sey eral morlifications sinee then．It comsints uf seberal ranks， viz．，grambl olticers，grand crosses，commanders，and knights． Its distinctions are conferred for civil，hot more espedaly formilitary achievements．Theorder busposose consinderable wealth，of which the proceds are paill out in pensions in wounded and disabled members amd others．Its house at Paris was burned by the Communists May it． 1871.
legishative Bodies．See Laglatures．















 jun- Paf ely



















 the whole -tate and to that athane.










































 orminally lo have hem life senators. In last the haw was
 lihn wher bandere by shators dected for nine rars. in
 depatmant - murn fran 1 to 10 semators cach, actording
 lase rempand of the deputies frem the department, its




'The I'rumian Xatimal Djet (handuge comprise a llouse


 hordiatry mombres sull adult roval princes as the King
 bility, abd further, as life members, thase whon the king
 mimen mbility. hy the cities (4 members), lis the prosinces. tha miveratios ithen and epectally the large landlords

 indirer. Tho where (l ramher) uf each district are divided


 mïnmer, who ofowe the hephty. The effect of this arrangement is that many witers of the thind or most mancrons class Jo but tahe the trable te wote.

The Federal (onmeil (bundesath) of the German empire


 mombero Pruma namos 1\%. Pavata 6. Saxeny aml Wär-



 and sertet hallut.

The spmish leginature (Cortes) is eomponst of a senate and : Cugres. 'Thure are ame so "enators in their own rimht." $i, \cdots$ atult roval primers waters of large incomés, and (artain hish oficials of Chureh and state, loo life sema-













 ath ly dipet diatrot whe.






The lexinlathere of the state of the 1..s. are without




manner by dirert seret hallot and plorality votip. Gomators serve fond years in thirty states, two yoars in everan states three years in two statex, and one year in onde thate. lapre-
 in ollher is well-nigh universal. The mmature of senatoms

 Thamphire In Naw York the members uf tha kimate and


 of correctly estimatiner the common intorst. Hmblarplait might be apportioned among social or indastrial mrapis-
 there are historical instances of such apmortinnumat. lipr resentation in the lower house of the legishature in dramerally proportioned to pernation, sume resam! beinep patal incidentally to georraphinal or allministrative divisions. In the U.S. there is one lepresentative to about 1 ass.mo inhabitants: in the (ierman empire, one to $124^{2} .5(0)$; in l'russia, one to 6!, 18t) ; in France one to 65, 600 ; in lireat liritain
 Switzerlant, one to $20,000:$ in New York, mme member of Assembly to 4t, 700 : in lllinois, one to 25, 2001 : in ('itlitornia, one to 15,000: in (reorgia, one to 10.404 ; in New Ilamu) shire, ome to 1.140 .

Election.- ${ }^{\prime \prime}{ }^{\prime \prime}$ woter must be as a rule a mala citizen residing in the comontry and qenerally in the dietrict which the member is to represent. II mund be of matare anta commonly twenty-one yours : an the (iernath empire in Prumia, and in suain twenty-five, in switgerhand but twenty, In all countries criminals and persons of defective intellect, and in most cases jamper- perans in bankruptcy. and memblars of the active military force ane excluded from the exer-isp of the franchise. In Great bivtain there is a complieated system, or rather want of system. of pronerty phalifirations. details of which must be sourht in various stathes ranoring from 1409 to $18!1$. These qualifientions may be rourghy summarized as follows: (Inly malen ower twentyone yetro of age are permitted to bote. ln comatios and borourhs the voter must own or oceupy either lame or temoments of not less than ed char yoarly valne. or oecopy an indepentent dwelling-honse, or a lodeing of the char vearly balue. if let unfurnished. of $t^{\prime} 10$. In connty constituencies other prorsons in addition are rmalifed to vote by a freshoblo of inhoritanee of 40 . clear yearly values. a copyhoh, as well ats lice. hold lor life only, of ${ }^{2}$ annual value, and a leasehohl, il ereated for a term of over twent $\begin{aligned} \\ \text { and les than sixty years. }\end{aligned}$
 quasi-property qualitieation of the Prussian system has beren describerl ibove.

Eliyibility.-Citizenship, male sex, and reodence within the country are remerally requirel. Frequently the bosim lator must have attamed a certainage. [V.s. Senators must be at least thirty years of aquand nine yars citizens. Revresentatives at least twenty-fire and saben rears ritizons. In France senaturs must be forty, dopoties twentr-five: in Prussia deputies must be thirty. Certain disqualifications are connected with the hohlime of offer. Numan ean bo a member of both houses. In the [ ${ }^{\circ}$, s. a momber of ('ungress can mot hold a Federal office. The British and Frenels systems disqualily olficials who ate in a posit ion wanduly to influenee their own elections, and oflicials whose duties walat interfere with the exeroise of lemishative fundions. In dirat Britain and on the continent genorally appointment to oflion unseats an elected member, who maty subsequently be raelected. For thes lower housis of all the (romman lextestatures the provisions for the Jmperial Diet are farly typictl. All sorts of officials may be elected, but any member who aftor
 loses his seat. Ite may, however. regrin it by prateretion.

Priadeges of Mombers.-In all mase the membors major full liberty in debate. For anything said or any wote given in either honse they ean not, exeept in fase of the froman Federal ("onmeil, dee callend in "hestion in any of her plan". As a rule, they are exempt from arreat durinir the suajom. and for some time before and after it. sitro in bare of flagrant olfenses.
 legislature, it is urged that the salary anablas (alpabtern to serve, whether wealhy or form, and that bumment removes, or at least diminishes. the trmptation the stenal. on the other hamd, parnent is helal to exoite the chpinjity of insapable persons, and it is ascerted that non-pryment seentes







 the resuretive statum.
 hanse is the sale judge of the entetion off it- uwn memburs Was first establishal by tha Ilunco of (innmons, amal was

 laterely disaputarel. and the rule late mot alwaty worken]
 the Jonse of commons thanderm] tha decojon of its tomtrated election cases to the conrts. 'Ihe extension of this practicte an frequently urged, to othar anntrios might perhaps bu fraught with danger to the dourts themectrose eque"olally in cases where as in many of the states of the l. s. the julliciary in elective.
 own diseduline, and establishes its wwn rules of pexedure. (wee Parlamestary Law.) 'lhorvare exeqpitoms. The Vice-president of the L'. S. is er officion prailing otlicer of the senate. and a two-thirds volt of wither lonse is neressary to expma member ol it in the way of dineipline. The
 lor. is a member of the cathot. amb nay he a tommoner.
 other oflicers of larlianment are [wmanent. amd alyointed by the trown. 'The fremeh (ohambers likewise arrange
 lice, and cabinet ministers must bu giver ther flow when they demand it. Tho eane of tho Gorman Ibint in similar, save that its sessions mant in all casio he foblor, amomemhers of the Federitl (ouncil. as well an reprematatives of
 'I'le Federal Conncil itself is muthr the presillemey of the Chancellow of the empire, whon is sipmointed at !leainure hy the Emperor. and the comstitution virtually afmints several of its more important committmes almo. In the sereral
 gemeral ticket by the state at larore, is commonly the presiding officer ex officio of the state stanato.
(bicormm. -The general principle is lhat, a majority of the mombers heing preant. a majority of thone who chonse to vonte is suflicient to pats a law. Thbe $\mathbb{T}^{\circ}$. S. and Eremeh semates. and the lergislatures of many of the siatoo wit the [Y. S., however, require that a majority be prement and alsu
 boll methors. In the llamep of Lorde thrue are a quorum, in the Jlouse of (ommons forty, Busimas is as contiredy in the hands of the responsible catimet, whinh mot summon all its forces to escape defeat wn any innurtant measure that no dimerer arises from this rule.
siescions their frequency and lengeth, the method of conroking the house of moning the mesonne of atjonmine -
 or atjonming withont elay-i. 口. of ending the susion-
 calling for a new mection): lathe 1 . St the ('onstitution requires the asembling of hotlo lomes on the first llomlay
 of opening and closing. and adjonm from tinte to time. In arreenent they adjomen withont day-i. e. promogne themsilves. Tf ther are mable to andere the Prombutht has constitutional power to promede them. hut it mever hats become necessary for him tudoso. 'They sit as lomer an they latase,
 ruguma an Dar. 3 by the uspiration of the term of the kor resmatatives. The Presilent cian exill :1n extra sessum uf tuoth houses. or of the semate alom". whenever he mes fit. A diconlation cat vecur only by that tiphation of tho torms
 fire at any one time.
decorling to law the Pardiament of (inat livitain mast

 statntury linntation of its daration in arbor vars. It is
 sulbel by the crown, on hy the "xpiration of that torm of























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 se-ation if the Lavedature.


 smatar, but in some of them the belo of the (iwnerner is










 shme 1\%ni.

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an whioh Whe. Wachel refused to flay, though the refusal -a bur a time of 5000 franes, was transated into ltalian, anil perfurmed with great suceses by Mme. Ristori. Aneng
 that (l-ti); ha, drama in verer laes Dena heines de


 iqdhuenns works. indmbing Mistoire morale dos Femmes



 ans (1-90). Lequms became a momber of the French Acadfons in 155, has held the frition of inspector-general of pmblio instruction in the nomal selome for young women at Siversand in 185: was made a commander of the legrion uf homor.

Jevised ly A. R. Mansh.
 1: W. at Dijon, Frane", Alor, 16, 1s30; stulied at Dijon lyce-

 1. Fition to neryone and mental discoses, his graduation the-

 des lhópitume. ite was for eight yearsa resident plysician at contreximillo, and in $1 \times 65$ phblished a mongraph on the - ftecto of thene watere. In 1860 he berame an associate of Lament the prefecture of police in laris: in 1867 he was mominated as oum of the alienists to biretre, and after that time he hevoled himself "xedusively to mental and legal mondine. Jon mind years he was editor of the Annales medien-isyrhengiques. He was one of the originators of the surite de materine lexale. He was president of the montion-pychongenal sucty. and an olficer of the Legion of Homor. In 1 sit he was appointed physician to Salpetriere, and in $14 \boldsymbol{3}$ was made chief phrsician of the special infirmary for the insane in the prelecture of police. He was the withor ming valuable papers on mental derangements. His principal wark. Truité de maderine legate, etc. (Paris, 184(9), was crowned by the lnstitute. 1). May 5, 1886.
s. Ti. Armetrong.

Legn'min [from Lat, lequmen, pinke, deriv, of légere, yather]: en of the wernable proteids or, as they are sometimes called, ulluminails. (Nee Alasiminoms.) It is very sinalar in its whamal properties and eomposition to animall cascin, the subatume of cheese-that is, of curd of milk. Latgmin ofenrs catmivively throughout the vegetable king-
 amb mats. It wrives its name from tha fact that, with starch, it makis up almant thu whole substance of the seeds of lecraminnow fants, - hath geas and beans. llence the fowerfully 1 an ritinus character of these ans food-that is, for thas fusurand of puwnful digestion. for vegetable cascin is far from theng so rembly soluble in the gastric liquids as amimal canin on sum of milk. Peas and beans contain ahwit onc-quarter of their weight of this phant-curd, and arte comparable, tharefore, so far as richness in nitrogen is
 milk, arerdinge the highest dotorminations on record, ennains matmore than it jr cent. of dry casein by weight; Woman's milk contains less than t prerat.

Vowlewer fome in legumin peripitated from its solutions by atio and, and the fred from all mineral mat-

dapunin wat propred in pure state by Dumas and Cahame from milk of swe atmmots. The kemels are brused, soathed in warm water for there hours, crushed to pulp, and an mbal weight of cold water added. In an hour the mass is putsed thraugh a doth. 'The liguid deposits its starch, and is thon filtored. Acetic acid tavoling exess) now pre-
 whinh is washod on a filter with water, then with aleohot, driad. palverizal. and trated with ather to remove fatty shmatmes. It is more dillicult toontain the vegetable curd pare from buans, as thene comban macilaghons maters whinh ramber thet fill ration troublesome. 'I'he logumin thus propured is stated by ather chemists still to retain in admixfore sum albumen, th arparate which requires re-solution in


 hegumb, complution, and ghten-casein.
II. Wurtz.

Legnmino＇sa［Mot，Lat．，from Lat．legumen，pod，pulse］ a family of dicotyledonous Ifowering phats，with alternate stipulate leaves，separate anf mestly irregular petals，a single simple ovary（rarely $2-15$ ovaries），in fruit producing a legume（i．e．a bean－like lnd）．＇lhe many sueies（ 7.000 ） present numerousexceptions to thece waracters．Three sub－ families are genemally recognizet，thut it is probathe that they are entitled tofull rank as limilies，viz．：1．Mimoserect，with regular thowers and valvate petals（including ahout one－ seventh of the suecies，mostly if warm climater）．2．＇（essu－ pinitceer，with mostly regular flowers，and imbricated putals （incluthog ahont one－fifth of the species，mostly of warm elimates）．3．Papilionacte，with bean or pea like papilion－ aceous flowers（including fully two－thirds of the species， with wide distribution）．The species range from tiny herhs a few millimeters in height（some istragali）to enornous trees a meter or more in diameter（Robinia，Gymmorledns， Gleditsia，etc．）．Nany species aro ol great economic im－ portance，yielding foril for man（heans，peas，vetches，soy lapines，peanuts，etc．）or for domestic animals（clover，alfalfa， vetches，sanfoin，etc．）wom fin fuel or emstruction（lochst， rosewood，mora，wathes，etc．），elyes（imdigo，real santalwom， camwoof，Brazil－wood，logwood，ete．），\＆ums（tragacanth． kino，tolu，copal，copaiva，acacia，ete．），medicines（species of Acacia，Cassiu，Astrugulus，Tamarindus，Glypyrohiza，etc．）， ornamental plants（s）ecies of Lupinus，Lathypus，Wisturiu， Robinia，Phaseolus，Acacia，Mimosa，ete．）．

Charles E．Beswey．
Lelı：capital of Ladak，Kashmir．Northwestern India； the principal market of the region，and the rentezoms of the merchants of India and Turkestan；15．5 miles E．of Srina－ gar and 3 miles from the rimht bank of the Indus（see map of N．India，ref．3－E）．It is surrounded hy walls and con－ tains a celebrated Budhhist monastery．J＇he land about it is sterile，but there are occasional rich agricultural valleys． Pop．about 5，000

Lehigh River：a stram in Penncylvania；rises in Pike County，and traverses a region remarkable for its beaut $y$ and famous for its great profloction of anthracite coal．It passes the Blue Ridge at Mauch Chunk，and at Eastom unites with the Delaware．It is nearly 100 miles loner，and for 70 miles has been fittel for slack－water navigation．

Lehiglitou：borongh（site settled by Moravian missiona ries in 1746，laid out as a berourl in 1594，incorporated in 1866）；Carlom co．，Pa．（for location of comty，see map of Pennsylvania，ref．4－1）：on the Lehigh river，and the Central of N．J．and the Lehigh Val．railwars； 4 miless．by E．uf Mauch Chunk， 87 miles N．by W．of Philadelphia．There are 6 churehes， 12 public schools，clectric lights，exhibition－ grounds of the Carbon County Industrial Society，and ： weekly newspapers．The manafactures include stures and fumaces，car－springs，carriages，britks，and tamed leather． Pop．（1880）1，937 ；（1840）2，454；（ 1843 ）estimatet，3，500．

Jhitor of＂Carbon Adyocste．＂
Lehigh Uuiversity ：an institution founded and en－ dowed by Asa Packer，of Mauch Chonk，la．；locatefl at South Gethlehem，in the milst of the great engineering． metallurgical，and mining industrios of lennsylvania．It was ineorporated hy the Legislature of Pemsymania in 1866 and the first clase was graduatel in 1869 ．It comprises a school of literature，having three courses of stude，the classical，the Latin scientific，and the tourse in science amd letters；and a school of techmology，which has six distimet courses，civil engineering，unchanical ensineering mining and metallurgy，electrical enomerning，chemistry，and ardh－ tecture．There are tive buildings devoted to the general purposes of instruction，and also a chapel，a library himhines， an astronomical observatory，and agmonam．The library contained 93,000 whmme in $1 \times 94$ ．The museums have a fine collection of the birds of North America and the Jioep－ per collection of mincrals．buring the enllegiate yar 1843－94 there were 3.9 poleswors and int ructors，and＂ 59 ？
 The fommer of the miversity，in aldition to the gifte of buidines and money turine his lifetimes semend to it by
 was spefally sot apart fur the libary，The prandents have
 also acting president during lna；－M1：John M．Luavit， 1）．D．，from 185 to 1800；anl linhrt A．Lambertun．1．1ヶ．D．， 1880 to 1893 ．The number of graduales up to Jian．，1世94， was 584．No honorary degrees have ewor how eonferred．

Massfield Merrman．

Lelimani，Gāmắm，Charlps Erxest limolpae Ilexrt： painter；b．at Kind，in Holetein，Apr．14，1s14，and requivel his first instruction in the art of paintiner by his father； but settleal early in laris．Whare he staliod imatre fagres， and began to exhalit in js；3．The paintal many piotures of meligions and 1 metional subjers，of which The inernides
 groat ball－room of the Ilotul de Ville of I＇aris（hurned in 16Tl）and the thron－romen of the laxmbourg．It，has
 Aldnose Karr，Arsène Honsaye，and haron IIansmann． Ib，in I＇aris，Mar．30．1882．

Lehomint Romoline：paintor：abrother of Charles I aht man，painter：b．at Otthem，in Inotein，Aus．19，Is19； studied under his father and hrother matil $1 \times 66$ ，when he tonk ap has residence in Lomlon；ratided for the most part in Romes and painted mostly semmes of lalian life and na－ ture．Le paps Siste－Quint lumissont les Mirais I＇ontins， in the Mumm of Lille，is whe of his most celebrated pieces．

Lehrs，lärs，Karl：classieal philehogint ；b，in Königsberg， Pruswia．Jan．14．1su2：leedme privat locent in 1831， 1 ru－ fessor extraurlinary 1＊ing ，rofessor ordinary ts4．Il．June 9．18：His．distinction reats dum hin emeh－making work
 was the first scientifie and exhanstise treatment of our sonrces of knowlefle conrerning tho llomeric researchos of Aristarchus and his schon，and of the principles which he followed in the recension and expenis of the text．In his chition of the Meroidex of twid and particularly of the Odes of Inorace，Lehrs marks the climax of that liypereritical methol of interpretation inauguraten ly Iofman－Peerl－ kamp，which，starting with an itleal of［wetic jerfection， regarks everything not in ronformity wih this subjective conerpon of potie prombety as an intermation．of other works we may mention the following：Pindarscholien，an invedigation into the somrees of the extant scholia：lopu－ läre 1ufsatze ans dem Alterthum，zursugsur ise zur Religion fler（irierlen（1s解）；and tramelations of Jlato＇s Phudrus ant symposion，perhaps the best version of these dialognes in（iemman．See E．Kammer，Bimprophisches Juhrbuch （1859），MP $15-28$.

Alfred（icdebas．
Leih＇nilz，Gottrated Wilnelm：b，Jane 21，o．s．1646，in Leipzig，where his father was mony public and actuary of the university．＇The fathor died when gottfried was six years ohd．Ilis mother sint him to solmol，where he peinced a memarkible love of study and monal talent．The leamed Latin withont the ais of a grammar at cight years of are， simply ly reading and m－rtading livy and the（\％ronologi－ cal Thesmerus of C＇alvicius．At the ite of fiftetn Leibnitz entreal the Lejpag Cnivessity to prepare himself for active life hy the stuJy of law．He ram in 1tim his dissertation De Itincipio Indicitui，and in 1666 publinhed his work De Arte Combinctoria．In the same year ha left I eijprig，be－ falle his ard was urgel as a harrir to his obtaning the degre of doctor ime is，and went to the miversity at JItorf， where he ohtaniefl it by his dissartation De Casibus lpr－ pheris，and was offered a profesemship at the university， wheh he refased．lharing the winter he remained at Nurembrg．stulying the works of kppler，Galileo，Bacom， Gasmmli，and Descartes，also montinaine his law stuties
 Iharm Bumehors，the former I＇rime Ninister of the Elector of Mentz（Mayence），and arempanied him to Jrankfort． whore he beran to prepare himself fur a politional life．He
 docpulieque Jorisprulfotion（libs），which he sent to the Fibector of Ment\％，ar＂ompamial hy the Noteh of a chart ＂which would enable any judge ir law yoy to decide im－ merliately any given fars of haw anding to the tixed prin－ ciples of jurispudence，＂This plased the edertor and he appminted Leibnitz assictant tulor．Lamer in the elalumations of a refomed cole of Loman law．f10 wat at the ame of
 of appeals，the highes judicial\} tribunal of the theterate
 aliation between J＇rotectante and Roman（atholice．and

 dimovered，as he thonght，a basis on whith the thomins uf buth thurches on the subjent of tran－abatantiation．their main point of fiapute，combla harmmiand．The prepara－ tions mate hy Lamic XlV．for a war agane（iomany at the same time led him to entar deeply into pritites．＂1on the





 tammer whlan itulf an mlatit muntne of ativitios and






 "wn buly. Finth monad havine clearat conscomeness of

 It hix the wher monas, it in simply the the grate of con--romono. manat that the mande are distingund from





 Whaspremphine aria in it from its own proper mature,

 Than it is that wh of thon sulstanmerem representing fremaly the whate mivere in its awn way and aceording
 If the extmat thime remblame the mal in this pant by

 with all whar. 11 i-thi- mataal ruphort, regulated in adsame in tan -uhtane of the miverse, which produces
 -H14日, the " amen of lonly and soul." The chief characterittion berintiti mind in his iembener to study arerything in it-andutins: if mot the orimator he is the chief inciter II) the "comparative mothat" that has come to prevail. sur Kino Fisther. Leiluitzumb seine sithute in vol. ii. of













 squatutier l'hilnsephy matains trandations of the Monenfuloug and many of the minar writings, together with a


Revised by IV. T. llarme.

 ? milnes. uf Xittinghtu (we map of Englath, ref. 9-1).


 and manimpal larangh, and al cennty in itself. It returns





 X. 11 . If the haw in the dhay l'ark, of alwat tiv acres.








 hambur, will it- vanded remef, in in the alyle of the
sixteenth eentury. Among the chief remains of Leficester Castle, which existed hefore the Complest, is a purtion of the Great Norman 1 [all in which several 1 arliament- were helel in the fifteenth eantury. amil nuw conruptel into anse and session eonts. The town musem io the motinsplace of the Literary and Philosohical sucioty. The town library contans 800 vommes, chitfly oh thendogical works. The free library contains some eatoll volumes, and has two branch lihatios. The shest of irt and hacture Hall (1504) ocenpies a portion of the site of the munam. A news-rom. with a promant library, ormpies an elifioe. in the dassic style, erected in te 40 . The market house and com "xhange are in the market hace, an om arm of 4 arere. The onerahouse (1850) will veat 0.000 persoms. the Theatre Rayal 1.500. and the I'rince of Wales's Theatre of Varietues 1.260 perems. At the center of the town is a clock-tower eremend by pablic subseription as a memorial of fomr benefacturs of laticester foremost anong them beine the famons simm le Montort. Earl of Leicester, who estahlishend churehes and religions houses in the town. There is an infirmary, opened in 171 and several times enlarred. A frorough lunatie actlom was erected 190-40, at a eost of 60.000 and a childrens hom pital in 184. On the nurth sille of the Newark (New Wark), an area adden to the castle by Hemry, Earl of hancaster, Leieester, and Derby, father-in-law of Jhon of chant, is Trinitr llospital, founded by him in 1330, for fifty ohl men and five women as their numes. Wygerton's llapital for twelve men and twelve women anil three chaphains was founded in 1013 by Willian Wyrgeston, a dedicester merchant, and rebuilt on a new site. There are many other old and minor charities.

Churches, Chapels, etc.-There are at least twent churches and more than forty chapels of different demminations, some of which are large amd clegant. To the N. of the borough and on the north bank of the Soar are the remains of Leiecter Abber, foumded in 1143, where in 1530 carmal Wolsey came to ask "a little earth for charity," and, dying. was buried in the precinct. st. Dlary's chureh, restored in 1875, is an ancient building in the Norman amd carly Fnglish styles. St. Martin's chureh, eruciform amb of great width, restored at a cost of $\{0.000$. is chiefly early Engrish. St. Nicholas, the oldest of the churches. dedicated about 1204 , is an cxample of very rule carly Noman. St. Nargaret's, a beantiful stome edilice erected in 144, is Early English and Perpendicular.

Schools.-The berques of William Wyrgeston having reached in value fono a year. the charity commissinners founded with it the Wyarenton schools, with which Gueen Elizabeth's Grammar sichon was incorgeratel. The ohl Greencoat Sehon, fommed by Aherman Newton with a yearly income of $£ 1,100$. has inen converted into a publie elementary schooh, with schoharship attacherl. The simond board has erected more than tiftempmbic elementary schools. with accommoditions for marly 1 f.tow children.

Government and Admintistrition.-The town is eropued by a masor and corporation, actiner alse as the urthan samitary authority. The town nwns the water-work and gisworks, and has spent lageremms in widening the suar amd diverting the L'nim Gamal, and in constructing new weir locks, bridges, and flow-ehamels. 'There are also phbice baths.

Manufactures and Industry.-'The mannfacture of wolen eloth was attempen here in the milale of the sisternth centmry. At its chere the hambanting of home was lemen and was extmaive towarl the close of the sevontenth semtury. Barly in the minctenth century wonen and cotom socks and woulen shirts were male, and dhow and other articles have-ince buenadmat. In $1 \times 9112.31$ purane were employed in the pronduction of hasiary. Jn the manufacture of boots and shes the town takis rank after Ninthampm, and in 1891 gave emphoment turf. 159 premm. An impethe was given to this industry by the intrulaction of the mastic web in bot-making. There is a laume panation ut matic fabrics, to be used by howier and ghotemakers ats well as in the boot-trade. The ather chief industrins are the women and worsted manutactures. which in 1 n! 1 emphed 1.810 m
 making. The trate owe much the the tacilition for emmmnication through the varions impront line of rallway comrerging here ac well as by the far and the dinm damal.

Ihistory-Leicester was a liman statim, and many remains of the Roman exempation ham hern lisenverd in it
 been rebuilt after the C'onduest, haul fallen into shich dilapi-
dation that when Richarl III. pmomel throurh the tuwn on the eve of the battle of bowarth, he premornd saman at

 thried in the 'hurch of the (iney Friare, it was taken fhemer at the disulutions of the monasterios and thrown inter the Sor. In the civil war larionter beld for the Darliament, was taken ly the Royalisto. and retaken by Farlax. Its madern histiry forents fow fature of intorest.

Population. - Tha porulation, which in 1sin was 17,005,



Gee Thompom. History uf Lficestor (1-19-i1): Read,

 guide-lunks: kellys Jimetory of Derbyshire, Lefestershire, Rutlond, and Sottinghumshise; Iarliammars papers, cte:

1: 1-mprase

## Leficenter: See Nostrort.

Leioutar, Robert Hompy, Farl uf: enurtiar: a son of the Duke of Northumberland who was executen for trying to make Lanly Jane direy quan in 150?: b. in England,
 as at tratur. bat pardonel 1ant: lecame the facorite of Quepm Filaketh, who mate him h. (t. and mastre of the hore 155 s . The sullets death of his wife in 1500 aroused stromes subicions that he was aspiring to the hand of the
 Elizaleth proprsen his marriage with the Qucen of scots, ame somewhat later his secret marriage with the widow of Esses aroused the ander of the fuem. He was sint to the Low countries as captain-wineral in 1.58 .5 and 108 s , but disMayed no capacity: was in lise gneralivsimo of the troops raised aquinst the Spaniards. 1). in (watromhire, Sept. 4 1ise. His chatacter prents a rather perplexing foblem. Ile was tall and handshme. with ingrathating manors, but vain, promming, and without ahility correvonling to his amhition.

Laicestershire: a county nearly in the center of Eneland ; bumped on the N. by Notturhmehire, on the N. W\% by Ierheshire on the N. E. by Limenhesire on the F. by
 Warwick hire. and for a mile or two on the W. be staffordshire. Area, siot sq. mites. It has a lori-lientmiant and a county conneil. It returns four members to the If anse of Commons. one for each of it furr divisions. It contains no parliamentary buroush but ledecoter, and has moly five towns bemiles Leicester with a fuluatation athe sombLoughbrough, Hinckles. Ahbw-le-la-\%onch the seeme of the thurnament in Irmhor), Melton-Mowhay, and Market Harlmemsh. The chief seat of the ataple mandacture of the comaty. hosery. is Leicenter, but it is carrial on to some

 great grazing conntry. Acending to the agrimatumat re
 were in permannt pasture. The lreen of how known as
 of the beicesternire weep is in grat demand for the bo-serv-manafacture. There are many dairy farms where are made beth that checses, wheth alte in greal temand, and the fimmons silton cheeres, the latter coming from the NeltonMowhray dintrict. which hat given a mane to the aho well-
 hanting combty and Meltan- Mowhay and Market Harborough are the headgnarters of hanters during the season. lelvair cathe the seat of the bake of latham, is 10 miles from Maltom- Mowhray. It Luttorworth, 1:3 miles so of Leicester. the great refome , hhm Weliff was rector during the liat fon years of his life. 1:3inst. P'op of the comity. 3nt.4ts
Leichbardt, lioh hart. Lertwfo: pxphar: h. in Tre-


 result of which he rembention in hiv comfritutemes to the




 weduring sixtern menthe wa a reselation of the moknown. he wrote an acconnt of this expedition aformel of an User-

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 water with hat father. The -aga relatw hat after theen daty atho thoy lat ight of botam. Thonal moth wind

 Wenemme the flairtor of har sky, and they saw in the















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be king "af Try

thas neither annihilating Barne on the one hand nor dis-

'I'he matural infornaw is that Luf left Norway in the year lomat with iwn purpuas, one of which was to explare the


 thint-five ben, and finm the land aen be bjarne far to
 Whith he namell If lhatand (hat of that stomes), then in Nora
 Xem limelamb, which he called Vindand (Wineland) on aeanmat of the abmanne of will pranes growing there. He
 lame in the eqring. Un his way to (imemband he saved tifteen mon from a shipreck, ame for this he was called leif the Sancly. He remained in (ircomand, and after the death of
 the yar 10:2. 'The suga aternat of the Norse discovery of Amirian is fully contirmed by the distinguished canon and
 (inhmblus powend any know ledge of the Norse discovery or ont can mot he answercil with certainty. "loce is no direet prof "ither way, amd the asertion that he did know of Sirse vists to hands in the fir West is hased wholly upon circumstantial evidence. It is chamed that he may have sem a twpe of the brak written by hlam of Bremen. It is mended in the life of Colmmbus, written by his son Ferdinamb, that Commbus vinited lemband in Feb., 1427, and it is remmalda to sulpuse that he obtane information of the lamberisted the the immeliate ancentors of the leelanders. diadrid, the wiflow of 'lhortin Karlsefne, one of the chief exphere of Vialand, mate a pilgrimage to Rome, where she wat well receivel, amb she tombthes there told about her then suas residence in Vinamb. Finaly, the attitude of Comanhus on many oecasions would sem to favor the presumption that he knew there was land in the west. Thas he stated the breadth of the wome correctly, and spoke of the linuls bovond the sra with as much firmness and certanty a if he had alrady serin them. Jown to the time of C'ilumbus the other 1 noples of Europe were limited in their mantiral knowledge to comat mavigation. The Norsemon, and foremost anong them Erik the Red and his son Laff, tament the world pelagic navigatiom. They demonAtate the proitility of wom uring ont of sight of land with mothing but the sun, mon, and stars to guide them, and in this sense at last it may be said with perfect propriety that thi. Nurement $1^{n+1}$ bard the way for the great Chrisiopher C'olumbus. Set R. B. Andersm's America not Discovered by Columbus: A. M. Rewses The Finding of H'ineland the Fiomel: Jhn lisite's The Disconery of tmerica; and C. C. Lanns Antiquithes Americume Su Vislaxis.
liasmes 13. Anderson.
Leish Jen : town of Endand: in the county of Lancaster, 16 miles il. of llanehester (see map, of Englaml, ref. 7-G). It has large manafactures of ambries, mustins, silk and cuttongonls, and mhas. (Pop. 1891)28, 02 .

Leighton, láth, Alexamer, M1. D.: religious controver-
 If Si. Ambrews, in which he was l'rolessur of Moral l'hilosophy from 160: to 161:3, whon he lacame a Presberian pracher in Lamon, wher he alst practiod medicine; wrote Specuthen befliscuri : or the Lookimy-ghass of the Holy War (1624)
 the leflime (16:N). For the latter jublication, deemed
 twh was wheneal by the star (hamber to be twier pablicly


 impramanent in the lilat. Aflar "leven yars imprison-



 (16ilti).

Lievimel liy S. A. Jackson.





 (anem, and aftor that ho stablidin laris fom yoars under

## LEEIGITTO.

Ary Scheffer. He berame a hayal Seademician in 1869, and was knighted in 180~ when he was elected prosident: was created baronet in 1885; was atwarded a semol-rlase medal, Paris Saton, 1859; first-elass medal. 1'aris Expmition, 1心s) ; was made an officer of he Legion of Honor 1sts; was curresponding member of the Institute of France: member of the Academy of St. Luke, Rome, and Amanny of Finrence; and was awarded medal of honor. Ant warp, Expasitinn, 1san. He was at distinguished senlptor, and rewivil a melal of homar for his works in that branch of ant at the Jaris Expmoition of $1 \times 89$. A triptyeh, Musif is in the cering of the homse of
 Montague and 'apulpt is owned by Mrs. Joseph Marrison,


Leighton, Robert, 1). I): : arehbishop; son uf Alexamber Leighton, controversialist ; b. probably in Jommen in 1611 : graduated at the L'niversity of Eifinburgh (16:31), of which he beeane principal in 165: : was appinted Pishof of I unblane in 1661, in pursuit of the phan of Charles II., sharpe, and Landerdale to Anglicize the Chureh of scothant; accepted it with reluctance; appraled twiee to the kiner to adopt mider measures in the attomptol reform (16tion and 1669); acceptei the archhishopric of (hlasgow in 1600, but resigned in $16 \mathrm{~m}_{3}$ and retired to Bromdhurst. Susex. D. in London at an imn, just where he wished to His. June 26, 1684. His works, ath posthmous, are highly esteemed for their broar and libwal yiews and saintly piety ; they inclade Sermons (1692): Irelectiones Thenlogicie (16:3); rommentary on the First Epistle of Peter (1698): and I'sethummes Thucls (1703), and have been often reprinted. See his Life by J. N. Pearson, arcompanying the Works, best in Weat's edition (Lonton, 18 ang, i vils.).

Leinster, lin'ster, or leen'stpr: province of Ireland, comprising the sontheastern portion of the island. Wrdering on the Irish Sea and st. Georga's Chanmel. Arta, T, fe2 sq. miles. Before the English invasion this province formod two kingdoms, those of Leinster and Meath; nuw it is livided into twelve counties, namely: Dublim, Meath. Lonth, Kiluare, Carlow, Kilkenny, Kings, Longforl, Queen's, Westmeath, Wicklow, and West forl. Pop, (1851) 1.157.isio.
Leipo'a ocella'ta [Mol. Lat.]: seientitic name of the native pheasant of Australia, a gallinaceus hirl of the family Megupulteles, somewhat smaller than the turkey. lts flesh is good and its egas are excellent. The nest is a mass of leaves, dirt, and sticks, the heat of which, protuced by fermentation, hatches the eargs. The leipat is a switt runner, but is very stupid, ant often tries to eseage the hunter by hiding her head in a bush.

Leipzig. or Leipsic: the largest city of the kingom of Saxony and one of the most important cities of Emrope ; situated at the junction of the Pleisse, l'anthe and Elster (see map of Cerman Empire, ref. \&-F). P'm, (with the sub)urls, which were included in the eity in 18:n) ? $34 . \begin{gathered}\text { s. }\end{gathered}$, of which eirht-ninths are of the Lutheran faith. The rity is divided into three twlerably distinct sections-firat, the ind inner town, the emater of the intustry and wealth of the city; second, the beantiful promenales, which, surrounding the inner city, oceupy the phace of the old fortifieations and join the most important puhice square of the city ; third, suhurbs of modern origin and appearame. In it. three sections the city offers sharp contrasts in plan and in arwhitwture. The inner town contains the market-place, with a town-hall erected in the sixternth century, and other fine oli hmildings. Among the most interesting haihings of the city are the new theater, built from 1864 to 1865, after phans by Lamphame, in Renaissance style, with a porch on Curinthitn colums in the front and a monifient veramba in the rear ; the museum, opposite the theater, finished in loje after phans by Lange, and contaning on the grom! flow a not yery important collection of phaster casts, on the mindle floor a large collection of pictures, ammar which are four celebrated landseapes by Calam, and on the upprestory a large collertion of engraving ; the Augntemm, the main building of the university, built by Geuthrible in 1831 after phans by Sehinckel; the new unis+rsity litmary building. comphed in 1891 at a cost of over sinno,000, without the site: and the Pleissenburg. the scene of Luther's famons disputation with Dr. Eek in 1519. The most remarkable amons the churches are the Nieolaikirehe, built in Gothie style in the twelfth century, and the "Thomaskirche, built in the fifteenth century, and containing a beautiful marble altar. In several lines of commerce Leipzior is the most important city in Germany. It is the center of the book-trube, ower 500 tirms
being engaged in this businms, publiwhine mors than $2, f(1)$ Works ammally. Sinew the I wolfthenture it has bown the
 There are threen then anmally, and, thmesh they hate lost sompthine of their men ennsideratim, they still atract
 the time the Messe is 111 provers the atone of tha rity is much changed, ban by the maltitula of buthe amblans that fill the market-place, the Shenotor late, and atl surroumber portions of the "ity. and maternat of the great bustle in the strecto. The ehinef anticless shat at the hosen are turs, leathre, cloth, wow, linen, and glass. Laijpig is

 Music (fommed in 18tas), have athish rephtation, the hather
 The Gewandatus, buik in $1+4$. contains the manimat tibrary. A new (ewandhans has bean arecten), where the world-olebrated dewandhans cuncerts are conthumd, and a new building for the Comonvatory of Mnie mituns it.
 The Lniversty of Leipair was founded in 140, and is the second larerst in the German empire. Attemfane (15:4), 3,518 students. The university has an trman fally. and is one of the two or three reagnized cuntres of seholar-hip in
 tion to the miversity the (ity has a mumber of schomes of the highest character. Leipriar appars as a tomen for the first time in history in 1015. Before that tine it was an in-
 Buring the Miffle Agen the fortifications of the city protected its emmerce and (harles $V$. ineraned the privileges of its Messe. In the time of the Reformation it supported the new actrine, but suffered mon from the war, :and afterward felt more severely the Thirly Years' war. Tilly took it in 1631 : later the swede and the imprials heli it altumately. Its promerity was entirely dentroyed. The seen leas war destroved its antorprise once more, that its fammabla. Incation enathed it to recover rapmily. baring the wars of Xamben new calanities came orer it. From thet. 16 to 1s, 1613 , the great bathe in which Napreon was deteated raged in and aromd it, am ath great mowe ments in tiomany have atfected it more or less on amonut of its central pusition.
( $\cdot$. Jl. Jhuriser.
Leishman, leoshmaim. Willom: whotrician: h. in Go-

 practice in (ilasenw. derotine sperial attontion to midnifury and gynacology and was appointed to that chair in the frofesorial staff of Ambrams Collown' was elected th the
 pied it with distinguished homes mitil 1a!!, whom, on his retirement. he wan mate emeritus promore. Ite was a licentiate of the Royal lidhore of Surgenns of Edinhoreh and
 1s:3 he pmblishat his system of Mibeifiry at work that hats passed through several eltitions. I). Feth. In, 1 w. 4.
S. T. Armstrome.
 Frankint. (iernany; wat to forth Anerica in 1 difiol as a sullier in the service of the butdo Wiot halia Company: Was some time statimat at Altany, whe he engamed in trate with the Mhawk Indians, and actured some walth. While on a woyage to Eurnir in 10; ha was takn jrimater by Moorish farsairs, whamod liberty by payme a ransana. returnea! to Xew York, and in $165 \%$ incane ine of the anmmissimers of the court of admiralty. fon May 31, 169:3, 1, en-ler hatem an in-urection for tha preseration of the Protestant religion, tomk tho fort, derdared for the Primu of Urange, and phantel within the fort a lattery of six puns, which gave orimin to that name as stith aphed to the poldio park at the lower end of Manhattan Island. A cmanitte of satey wa formed and Leisher was investel with the powers of a governor. In thecember he disadrad the commitho of satetr, apminted a commerl, and assmed tho stydo of a rowal governor, wh the strengh of a diopatchandresed "tondech (person) at for the time being takes care for prorvine the peace and adminitering the laws in His Majoty's powince of New York." Garly in 16010 he sent at amall flow agrainst the French at Quebrec. In tha apmintment of shomater as governor, Laider refused to surmbur the fort and the gotcrmment (Mar. 1691) until convinced of the formor" itentity and anthority. For this constructive treanm dander was

-ratel puphlarity by productions of a humorous or harF...pan charatit. Ammg his works are The Joetry and Mystory uf Drams (1850): Meister harl's Shetrh-book




 himums in Pompler Trudition (1s93); besiles thanslations



 Atanet butry Mr. Le lamd hasa consulerable mastery of the



Lalaml, up Layloude, Tons: antiquary; b. in Lombon, lemplathl. atmot isut: was wheated at st. Panl's Scheol ant it Cxford: thek holy orders and devotel himself to the
 Vlli. whe of his hanlains, rector of Popeling natar Calais, amb roval antimatry (10.33). In the latter capacity he was
 Methpied him six yeare and was so thoroughly performed that the mas- of materials qathered was more than he cond arranes. Dfter cight yours solitary labors of elassification he buctane insame in i5, an and died in Louton, Apr. 18.
 de Seriptorimes Imitnnicis. was phblished in 1709 by Dr. Anthnis Hall. 11 is Itinerery of England ( 9 wols.) Was pulblishat in 1\%10-10, and his De Rebus Britumicis (ollectonea (i; culs.) in 171.5. luth works heing edited by an eminent sthular. 'lhombis llame. Lelands manuseripts were de-
 ased by sumb, Camben, and lougdale in their respective ant in uarian works.

Luland inmus. D. D. : classical scholar: b. in Dublin, Irelind, in 103: was ducuted at Trinity College, Dublin, Whore he heqame fedlow in 1ith. Ilis translation of the fortiuns of Hemosthenes (1506-i0) was long a standard work: he allo |mblibled al Inistory of the Life and Reign of thilly, himu of Macedon (15-5): a Dissertation on the Irinsiphew of Ihumen Eloquence (1964) a controversial work


Leland stanford Junior I'niversity : an institution of lammer in ('alifumit: fomded by the ITon. Laland Stanforl any Mro. Jane lathep, stanford in memory of their andy dilla. who died in isst. A grant of emdowment was mate by the state Larishature. Nov. 14. 188. Flow cornerthew hats laid May 14. 1sai, and the miversity formally
 havil Starm dordan, 1.h. 11 .

Tha, sito chomen for the location of the miversity is at

 Jowlinul :an] [artly rising inta the foot-hills of the Sierra Morina. In athlitin th this extate. the grant of emowment conseys th the uniserity an estate at Vina in Tehma

 dawmint of the minuer ity will be not less than seo,000.000.

The haldings mpande on a barge seale the arehitecture of the wh sanish absione of californiat. The mandepartumens of the misersity will be moloded in two latre fandrande. on whindy ammaling the other. The twelve anmotw bimildinge of the immer ghadrangle are connected by

 nifur quadrangle will lus similar in comstraction, lint will be 1 wormans high and will hate the noter arcade on the outsilu. It the main onning there will he at memorial arch so


 natimas, and mamerne mitases.

The rembal manamonest and control of the institution is butal in a hatal of twnty-finut tratese chasen for life. The
 form all the dational wapop all the powers and privieges

 ald thendertion of the faculty and the datarmination of the
educational poliey of the university. The prosident has an absolute veto upon all legishation by the faculty or council, and the ordinary rontine business is done by committers responsible primarily to him. Batlo professor is remarded as supreme in his own department, and in all the details of his work is resumsible only to the president.

The gencral sempe of the institution as statemin the charter is "that of a university, with such seminatios of learning as shall make it of the highest gramur, incluting merthat ical institutes, musemms, gatleries of art, hobutaries, mat conservatories, tugether with all things necessary for the stuly of arriculture in all its hamehes and for mentanat trainings aml for the studies and exercises dirmed to the cultivation and entargement of the mind." 'The wenteral biologieal dypartments of the nuiversity are supplemented by the Ilopkins Seaside Laboratory at Picitic Grose.

The conditions of entrance are the same for all enurses and students. Twenty-six subjects are offreol, each reducel to the unit of a high-selonol year. All stuitents must present ten subjects for entrance, inclucling English. Nitudents with not more than two conditions are almitted to partial standing. There are no preseribed courses of stoly in the ordinary acopptation of the term. One two-hom course in English emposition is requirel of all stubents before gratuation. With eertain limitations all the rmaining work is elective. For graduation the equivalent of the mathal four years' work is required. There is no time limit, however, and the division into freshmen, sophomore. junior, and senior classes is not recognized. Fwery stmbent who mumpletes satisfactority his major subject and the full 120 hours required for gradnation is sranted the degree of haphedor of arts. One year of satisfictory grabliate work in residence at the university is required of candidates for master of ants. The professional dagrees of mechanical enginuer (M. E.) ant civil engineer ( 6 . E.) are granted to hachelors of arts in entgineering on the completion of and aditual year in residence and the presentation of a satisfactory the sis. The degree of Ph. D. is given only on the erommi of alvanced scholarship and the ability to do indepoment work in some special line. No honory degrees are given.

The facalty at the beriming of the secomd rear mombered 71. The first graduating class, June 15, 1893, mumberel $3 \times$, of whom 29 touk the degree of bachelor of arts and ! the clegree of master of arts. The momine of stmbents at the opening of the second year was 710. classifiel as follows : in sraduates, 483 undergraduates, 122 special stments. Of these, 506 were men, 204 women. In 1844 the faculty numbered 90 ; students, 975 ( 688 men, 297 women). O. 1. Elehett.

Lelewel, la-lai vel, Joacmm: historian: b, at Warsaw. Poland, Mar. 21, 17s6; studied in his native city und at Vilna, and became Professor of History at the Lycem at Kremenets in Vollynia in 1809, and at the L'niversity of Vilna in 1814, but was dismissed in 1524, being suspected of participating in secret revolutionary associations. He was elected a member of the Polish diet in $1 \times 9.5$, and became one of the most energatic and influent ial agitators, and one of the most prominent leaders of the Polish rising of 1s30. After the failure of the revolution he fled to Frante, and lived partly in Paris, partly at hagrange, the vilh of La layette: bit in 1833 he was banishal from France on arcount of his partieipation in different Polith comspiraciss. Me want to Brussels, where he resided fur the rest of his life, wholly devoted to science. D. May 29 , $1 \times 6$. Inis writings atio very numerous, but they are all of the highest water. Ilis, knowledge is always anple and his strye is pure ned vary impressive. Besides his itumismatione the Moyen itge (Paris, 183.5), Py thétes de Merseille et le diésgrophie dp sinn Temps (Paris, $18 ; 36$ ), Gíngraplie des Atubes (Q vols., Paris. 185I), and Geographie th Moyen Ige ( 4 vols., Rreshan, 18.is57), he wrote several works relating to the history of his mative eountry. The principal of these are Misfory of P'oluml (Warsaw, 1809), with a contimation (Brusets, 1843): Considérations sur l'Étut politique de Pancipmu Pologne at sur l'Histoire de som Preeple ( 2 vols.. Jaris, 184t) : Li\& Pologne au Moyen Âge (3 bols., Pusen, 1846-51).

Leloir. le-hwar', Alemande locis: genre-bainter: 1. in Paris, Mar. 15, 184:3. Ite was a pmpil of his father. of. P. Auguste Leloir. historical faintor: was awarded medals in the Satons of 1864,1806 , and 1500 : secomel-class melall latis Exposition, 18\%*; Chevalier of the Lu gion of Ilumor 1s\%. I). in Paris, Jan. 28, 1884. Ile was a painter of charming talent in both oil and water-color. whose pictures are valuedf for their beauty of color and fine technieal qualities.

Lelong, le-ton', Jacques: catalogher; b, in Paris, har. 19, 1665. He was dostind for the ortar of st. John, ant received his first ellucation at Maltio. Later he stulfed in

 Bibliothecte Sucre, a catahgue of all chlitions and tranala-
 Bibliothequp historique do lu Frumén (1:1s), a catalugur of all French historians and their works, are rosarded an model works of hiblugraphy. Sow his Memoir ly Hesmolets in the second edition of his Bibluthere cherm.

Lély, Peter vas imir laé (khown as sír Poter Lofy): painter'; b. at sonst. in Wesphalisa, in lif1s. He sthdied painting with (ireblew, of hatram. Ho was abmady bery sucerosfui at the asp of twentr-fice when the Prince of Orange (William VII.) took hinit to Shatand to paint the royal family ${ }^{\text {an }}$ the oceation of his marriage with the damghter of Chathes I. In Euglamd he immediately receiven innumeralide commismos, great wealth, and the apointment if painter to the king. Alter the dath of ('haster l. Cromwell employed him, and 'hathes $1 \mathrm{I} .$, , 1 h his ateresinn to the throme knighted him and gave him a marion of 4 , 000 thorins, anil the jost of gentleman if the betchantarp. He made gond use of his fortme and zealously phanad his att, but when Knoller came to England amb suplanted him in the
 anchodia in London, 1650.
W. J. stiliman.
 Triancourt. France , lece 1, 1667: was apluintal 1'rufessar of Datin Poetry in the collage of prame aftarmard in the sume daratment in the Faculty of letere in Paris (1, (1)) ; in 1810 Murat named Lemaire as hemb of his projected University of Xalles, but Napleon Was not willing to let him leave Frane and aetted a pensim umon him. After the Resturation, houis XTHIS favoted the publication of a complete series of the latin anthors, of whith lemaire was constithent chief editor. From the list of writers, mand by Louis Limself, Lucretius was umitted for pulitieal comiderations. The series was completel in 1 te fommes, to which lacretius was suliserpuntly adted by P. A. amaire, mphew and assistant of the edifor. The valno of these variorm editims at the fresent hay comsicts only in the often exhame ive
 sur N. E. Lomaire par d. L. Gillon, in illumbix to the


Lemaître le-mãtr', Frénérir : actor: b, at lavre, l'rance, in July, 17as: stubled at the Comservatuire of laris, and acIfuired some pupharity upon his apparance in Trente Ins, whe la Jie dun jouew at the Parte Saint-Martin, but won his first great sueces in lside the joint anthor if Roberf Wactere and the actor in its title rofle. Victor Mago anal Alexambe bmas intrusted to him impertant roles in their phays and in Ifugn's Fíny Blas lumatite won anoller triumblh. Llis versatility was remarkilhe. Hle anten with she (exss in both tragaly amb comendy, hat was watially in the romantic drama ani the rembering of strong datacter barts that he exedhed. Ilis last alpuearime was in fobivat the age of seventy. D. in Pario, Jan, ed, 18.6 .

Le Mans, le-manan : capital of the departmont of sarthe, Franer; situated on the river sarthe, which is here eronsed by fom bridges (see map of pramer, ref. 4-1). It has a
 and westiges of Joman haldings latime from the secomd contury. Ie Mans has a thendugion sminary, a lyemm, a
 antiguities. and spreral harmal surinties. Its chiof mamfacturs are linen dabrime lwhe mathinery father, and

 1sti, the Germans defeated thi Fromelo in a decisive bettle.
 of connty, see map of lowa. reft, :i-(") : wh the Ill. ('ent. and
 of sious city. It is in an agrieulturat and stox-raising region: is an important arain, liveran- amblambar mar-
 4 hanks private normal sthon, hatines sthmel. and at work-



 rectur of a Latin sthool in shlusitis. frem which he was






 l.um'bers in






 2が














 brown fur, marhme whth datek brown amd ldack. It in atman-






The Nitway lumming.





 "raver. hath







$\left|x^{4}+y^{2}\right|^{y}=v^{2} r-x^{2} y$.

If the hymphonla is equilateral, that is, if $a=b$, this equat10.11 bevorlltex

$$
\left(x^{2}+y^{2}\right)^{2}=\left(a^{2}\left(x^{2}-y^{2}\right)\right.
$$

The corre is quadribla: in the latter case the entire area in-








 l., 0 - mondes. It is of valcanie formations, and bence was

 mon wors it was the abole of the lame lhaloctetes after his ahralumannt ly the Greek host. 'I'he Aremants fommed the inaml inhabituid ouly by woman, with whom they begat the Dinsans, what were expelled by the ledangians, The island submithed in that to the l'exsins. Athenans, Jacedonians, lomatas, ant after varyine fortumes to the Thrks. who hold it to-day. If had two ejties, Nyrimand Ileplarstia, The "apital is ('antho, with 3.000 inhabitants. It was famons for Ihe homnian wath ( $\mu$ i $\lambda$ тos. terra sigillata) highly pri\%ed even down to tha minetenth century as a dyestuff and as an antidot: for pri*n, smakrbites, ete, "He ishand contains :3, 10 on inhatiants. wh whom 5,000 are Turks. See Couze, latise unf dom Imspla dps Thrukischen Meeres (1lanover, 18f( $2 i 4$.
J. L. S. Sterrett.

## Io Moine: Soe Le Moyne.

I, M Mine, lemoin, Jabes MacPuerson: historian and matamlist; l. in Quehere l'. el.. Canda, dan. 94, 1895; was thluatal at labletit siminaire de Chebee, was admitted to tha har in 1s,0. and since 1 sos has heda an important offee in the indand ravinue department. Jle has devoted more thim thirty fous to rosimeles and wents mearly Canadian bintory, and is an entlusiastie student of matoral history and maithonerg. lle is a descudant of the for loyne family, $\rightarrow$ distinguished in the early history of North Ameriea. Amoner his works am Litrmothologie du ('unada (2 vols.,





 montes: Mistaire, Archéolugie ( $1 \mathrm{ss}^{2}-90$ ).

Neil Mardonal.d.
Lemon |: Fr. limon (from Ital. limomp), from Pers, limū, whone Arab. laimun. (f. Lasme \}: the fruit of Citrus limииum. 'l"he f'itrus genus, of which the orange and lemon ane tho familiaf foperntatives, constituted a mataral family, - 1 wombleted. which of late is merged by some in the large family linture. 'The leaves of these trees lawe translacent

 time ammat ehataterizing the gans: the juint below the hdmb. shows the leat to be a combumand redued to the
 Ins: uinged with leafy buriors. "Ithe fomom-tree does not


 complat extermally purplan and intermatly white; the deli--ato arman disimot fron that of the orange-blossom. The
 nimble: the rimi firm and atherat to the jenlp; the juice shaply ardid, hat in some variatios sweetish. "The roughness of the surfane of the lemon is awing to the imbedded


 larmoly worl for woblulatal drinks and for ellaryescing dramerhts, but also fin the promation of citris acid, its imjurtant ingrodiont. I'his is usind in medicine for febrile atal fhommation dianicis. ind in the arts for eertain proe-
 White parts of fabrien lyed with ferrie sults, (oncentrated
 ventom of sourvy in loner vorages. 'lhae commereial artiele
is derived from the lime and bergamot, as well as from lemons. The lemon is of Imdian origin; the true, which perhaps represents the wild state of buth the lamon aml the citron, is a native of the forests of Northern ludia. It is now generally understood by botinists that the lemon should be regarifed, spstematically, as a varioty of the eitron, Citrus medica, var. limon. The introuluetion of the trene tos Europe is due to the Arabians. Its cultivation is and imeluntry on the Mediterranean const between Nice and (iemon, in Cababria, Sicily, Spain, Portugal, ete. It emelures less cold than the orange, and wherever it succeeds wetl is likely to the a more profitable enlture It is grown in Florida and southern C'alifornia.

Revised by I. H. Bailfi,
Lemon, Oil of: the rolatile nil of lemom-peed (oleum cilri), extracted from the grated rind by pressure or by distillation with water. It may also be obtained by pritting the grated 1 eel in hot water and skimming off the vil which rises to the surface. That obtained by pressure has nume of the peenliar tlavor of the fruit, but eontains mucilago, ete. which make it more liable to change on keeping than that which is prepared by distillation. Gil of lemon is a volatile liquid, generally yellow, having the odor of the fruit and a pungent, aromatic taste. Its specific gravity is 0.8596 . It is sparingly solnhle in water: dissolves in 714 parts alcohol of specific gravity 0.8317 ; in 10 parts aleohol of suecific gravity 0.85 ; in any quantity in absolute alcohol; mixes with both fixed and volatile oils. It dissolves sulphur, phosphorus, resins, and fats. Exposed to air and light, it athsorbs oxygen, with the formation of ozone, becomes a larker and more viscid, and evolves a little earbonic acid. It contains a hydrocarbon, $\mathrm{C}_{10} \mathrm{II}_{16}$, or an oxygen eompound.

Oil of lemon is largely used in pertumery ant as a havoring for ice-crean and sirujs, and has the stimulant projerties of the aromaties, thongh in pharmacy it is chietly used to impart flavor to other medicines. It should not be darkcohored or viscid, and shond not leave a permanent stain on paper. It is often adniterited with oil of turientine, layenter, alcohol, etc. The presence of cheaper oils may gronerally be recognized by the odor. Turpentine may be detected by noting the behatior of the oil with regard to polarized light lefore and after heating. With pure wil little or no change will be noticed, but when turpentine is present the dextro-rotary power will be considerably increased by heating.

Le Moyne, or Le Moine : a Canadian family of cleven brothers, seven of whom acted prominent parts in alvanting French explorations, conquests, and settlements in Amer-ica.-Their father, C'Iarles le Moswe, b. in Normandy, France, in 1626 , went to Canala in 1641 : liven? some yours among the llurons; obtained extensive land-grants; was distinguished in wars against the lroquois under Conreelles and Tracy; wats held a prisoner by those Indians several months in 1665, and was ereated in 1668 seignenr de lamgucuil, to which title that of Claitteanguay was afterward added. ILe was for some time military commander of Nontreal, where he died in 1683 .-Of his sons, Paerre and Jenn Baptiste were distinguished in Louniana, graminer the tithes of Sicurs de Bienvile and d'Iberville (qq. é). - 'lohe eldent brother, Charles, Barom de Longueuil, b. in Montreat, Dec. 10,1656 ; servel in his youth in the French army in Flanders: promoted colonization to Canada: lmilt a stone fort on his estate at Lungueuil: was wombled in the repulse of Sir William Phipgsis assault upon Quebee in 15!0: was made governor of Montral and baron in 1700; was rom-mander-in-chief of the eolonial forces: fonght against the English expedition of Wialker and Nicholson in 1711: was in command at 'Three Rivers in 1720, and at Montreal from 1724 to 1206; rebuilt Fort Niagara in the latter year: was mate chevalier of the orier of Sit. Louis, amd diai at Mon-
 at Montreal in Apr., 16.5!: Wats sunt in Mar. lfive, with his younger brothers, ['jerre and l'aul (afterward allonervilho and de Maricourt), in an expedition moler the command of (bevaIier de Troyes agrinst the English on Hatson's Bay, where they had built Forts Monsipi, Jupert, and Kichinhouanne. These three forts were captured, as well as a ressol of war having on boatil the Emglish governor-weneral of Hudson's Bay, sainte-Ibelene having twone a lowling part in cath action, He was secomul in eommand of tho expertition
 the same year commanded the batteries which ramelled the English sfubudron at Quebec, on which occiasion he was mor-
tally woumded.-Pacto, Nicur de Marieomert, h. at Monatratal, loce. 15, 16603: participaterl, an abnve mantioned, in T'rozes's expedition arainst lhulson"s Bay, bujur wormulel before
 (l)berville in conmmand of that listrict nle (o) thim, when lie ailfod in the tefense of trathor; low patt in lrontenaces expedition agains the lronfuis, with whom he negotiaterl peace in 1701. amb in Apr., 170.1, lont his lifu, with forty

 oflieer in the French navy, num in 1694 and 1697 commanded ressels in lludson's lidy in enonneration with the faml operations of his brother illhwrille. Suksequently he commanded a spuatron: tomk to lanimiana some of its carliest settlers, and in $1718-1!$ surverad tho const of that colony. He was engaged in tha (eathite of l'masacola lrom the Shaniards (Nay 14), and repmaed them from Daupline island, near Mobile (Auge, 1!, $171!$ ) : after a shege of a month; was made captain ot a ship of tho line in 1720 , ame in $1723^{\circ}$ rear-ahmiral and govermon of Rochemort, France, whre le died in 17:34.-Antone, Sianr the Chatmaghay, lo. at Hontreal, July 7,1683 ; became an oflieer of the French army; took a body of colomists to Lamisiana in 170t; sorved under l'Therville against the English in 170 and 1 Tot; was royal leutenant in Lonisiana in 1718 ; was engagel in the Florida campagru against the Stamiards in 171!: taken prisomer at Pensacola Aug. T, and commanderl at Mobile from 1720 to 1226 , when he was removed from allien amb recallen to France: was sent as governor to Martininue in 1727, amb afterwarl to Cayenne: roturned to France in 174t; was made governor of C'ape Breton in 1245: successfully defended Lonisharg against the New Figland formsumdre Pepperell, and lion at Rochefort. France, Mar, ${ }^{2} 1,1747$. He inherited the title of sieur de C'hattaughay from his brother Lotis, b. in Jall., 1tio6, who was mortally woudded in the attack on Fort Nelson, Ilunsm's lBay, and diorl Nov. 4, 1604.-Another brother. Franços, b. Mar, 10, 16f6, killeal in battle with the lroquois at lepentigny bune 7,1691 , was the first siemr ale Bienville the title bassine on his dadh to his brother. Jean lBaptiste. Sauvolla, the first conlonial Guvernor of lomisiana, has often been incurrectly included as one of the brothers Le Noyne. Kevisel by C. K. Abams.

## Lellua (river) : Set Saļabor,

Lemploiere, lăańjrioĩr', John, D. I.: educator and classical selohar: b. in the imam of dersey abont 1665 ; studied at Westminster Schome anl at Oxford; B. A. 17!to: took orders in the Church of Fingland; was leand mastar of classical schools at Abingdom and Exeter: became roctor of Meeth in 1811, amd Newton-Petroek, I Devonshirm, in 1823,
 Reading, a small bibliuthem Classico, or classioal dictionary, much endarged in tho ed ed. of 17ge, which has since leen many times reprinted in forat lmatain and the U.S. It was bised upon Libluatiur's Dictionmaire des Auteurs rlassiques. published at (hathos-sur-Darme in thirty-six vol-
 known classical dictionary. [b: Dempricre bublished also a volume of Strmons ( $1:!1$ ) ; the first voluna uf a transla-
 Biogruphy (1808) in a single volume, reprintel in New York in 18.5 ( 2 vols.), with additions by Eleazar loort.

Leumur [from Lat. lemur, glost, specter, so called from its neseturnal habits]: a seneral name for the members of the subtorder I'rosimise (q. e.). at divisiom of the order Primotes, enntaining what Jivart terms the half-apes. The name lemur was apphed to these animals by (uvier on aecombt of their nocturnal labits and speetral apperames. Thoy alifer from the monkevs in many important anatomical details, but while they also differ from them externaltro it is lsy mo means easy to domribe the distinetiuns. "lolse hom of the lemurs is usually long and fox-like, the fur is soft, thick, and woolly, dutte different in texture from that
 delicate. Thuey never have prebomale tails (althomerh this organ may tue long short, or athepht), (heek-jullelwe or ischat callowities. "The great majurity of that of"e bus are foun-

 The ruffer lemur (Lemme zorion) is sometimus blatk ams white, and somotimes of an almont mifomm redlish-brown. It is almut as large as a (at, as is also the riner-taled lemur (La mario), which is of adelieate mas the tall marked with altermate rings of black amel white. 'l'le siow lemur (Ayctice.











## 














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 dewndument of atail (whinh in sump is very latere and in Wher wantines, the -ize of the wars and the leng th of the
 -1M1.1.

Lewtand by A. latas.
Lamuraidea: atame andiod by stme to the suldewter


























 Whath firen- "part of tha




 J.J. KRal









 liegutal and disilla-ioned. He resided at varions phaces in (inmany and Aurbadiligenty working at his lareer poetic Hondutions son alter his return from America he met Guhie von liew hat hat, a marriesl woman of great heanty and "moptomal taknts. They fell desprately in love with each wher, the sophan would not get a divorce from her bashand,
 hatak whl their hormon relations. This munapy love allair doubtron prepitated the atast ruphe in the life of the poet, who had alwas, been subjet to surere atacks of desmodreny and melanchaly, and who doubtlessly was aho physic:Hy" inelined to insanits. In 1844 lee became violently insame and hever recowerd his senses. I. Aug. 22, 1850, in a lunatic asylum at oberdibling, near Vienna. Janau is one of the wratist German lyrie puls of the ninetenth century, That his whas was not connterhalanced ly sullicient strengh and hirmons of chatater. He never could bring into harmony the idealism of his imginary word with the reality of his surmandings, and he willingly gave himself over to "the fravitation towarl unhayiness," as he calls the melandedie frofusity of his mind. Besides, he laved in a time in which the conflict lotween beliel and knowledge ocenfised thu heot mints and demanded many victims. With him jussinian and Wieltshmerz were genume, and not a mere theatrical !nse, as in the case of lleine. Thus le berame the greatert clerint of Germany, his poetry abounding with hemuly of mothhor and meloly of language. His primipal publations. beside his pocins, are Fust (1836),
 which show the heary contlicts in the poet's mind. See "pitz Virqfaus Lenen ( 1 siol); Berthold Auertheh, Jicolaus
 Shurz. Lomus Lebun (1805); Karpeles, Vicolaus Lenau
 grast Frimkl, Lenum und Sophie ron Lömenthal (1891).

Julus Goebel
 May 15, lith. Sha was heautiful and spirited; Searron, Simt-Evemond, Mulicre, Fontenelte, latechefoncmald, and others read thair works in har salun; it soon becane indisWH:able tor all young men of hith, wealth, and elegant amhitions to be introliowd to her. One lover followed the other in rap ind :acessinn, and this life went on uninterruptally for mon than half at comury. In her old age ladies, "xin of the highest fuxition and of the finest education, rowded her salno and for many years her social position was hrilliant. Ren the stadent her character dats little intwont hut her life is excondingly characteristic of the age in whim she lival. 1) in laris, Oct. 15. 1705.
La Nofe. lomer, luns: chyyymand biographieal
 wis ednoitell at 'Trinity Coullugr, Cambrilge, although he left the minersity withoul taking in derree, and hecame ree-
 was atandos contentor of hographical materials; wrote P'asfi Liclisia Amylicanm (IIG); Momumenta Anglicana

 wew mition of the Fowf was phblished in 1 siat ( 3 vols.) by T. Imfuchardy, asistant kepur of the publice records, with "conthuat ind itonn to that year. While the orginal edi-


 paparation of thin alitin upard of 6,000 rolls and other ramoth were comaltal, buedes printod bunk.

Rovised by W. S. Perry.
Lankoran: a fortitiod town in the govermment of baku,
 mer (semap of linsia, ref. 11-1). It is not far from the

Persian boundary, and previous to 1813, when Russia acquired it, it was a persian town. The harlur is pmer. Pop abont 6,000, mostly lersians and Armonians.

Revised ty C. (C. Amas.
Len'nep, Iavin Itacob, van: classical sehular: hat inm sterdam, July 15, 1iat: studied there aml in Levelen; was professor at the Athentum of his native cily till his death, Feb. 10. 1553. Ite wrote a learned and highty vatuable

 into Latin Bentley's Dissertution on the Eyistles of I'talaris.

Alfrei gichemas.
Lenuep. Jacob, van: poet and novelist : b, at Amsterdam. Molland, Mar. 2t, 1802; d. Ang. 2th, 186s. The son of a highly coltivated scliolar, Prof. David facob wan lemme. his youth was passed in an emimently literary atnosphere. He was destined for the legal profession, however, and in 1824 he received the degree of doctor in law from the University of Leyden. lle practiced his profession with great success all his life, and held many positions of puthie trust and responsibility. Llis leisure, Jowever, was devoted to letters, and the mass of his productions was very great. He felt to the full the Romantic influences of his time, was at friend of Bilderdijk and da Costa, and labored with them for the imarinative reconstitution of the past of Ihuland. His literary models were primarily Byron amd Sir Watter Scott, but the period he most studied and wrete about was the seventeenth century. Ilis literary carcer beran with a rendering of Schilers'Fiesco ( $1 \times 25$ ) and of Byron's Murino Faliero (first published in 1899). In 1 sef ameared foulemische Idyllen, and these were followed in 1827 ly the tirst collection of fiedichten (sulsequemly reprinted with later volumes in Gedichten zoo oude als nipure, ad ed. Amsterdam, 186.5). In 18.8 was published the first volume of Tederlandsche Lagenden in rijm gebrucht, malesed ujxin Scott's poctical tales. The revolutionary years 1830 and 1831 moved him to tager production, and his phay Ilt dorp aan de grenzen (1830; reminted in his Dramalische Werhth. 3 vols, $185-54$ ) met with great (raise. In 1833 his first historieal romance, De Pleyzoon (The Adopted son: Euglish trans. by lonkin, New York, isti), was reveived with enthusiasm. This was followed by De Roos ren Dekeme (The Rose of Dekama: English trans by Woodley, Lombon, 1847) : De Lotgevallen can Ferdinand Huyck (1840): Llizubeth Museh (1850): De Jrouue ran Witurtenbury (a drama, 1859); De Lotgecullen van Kitusje Zetenster (1)(tis) ; and many other works in prose and verse of a shmilar character. Extremely popular also were Onze coorouders in zurschitlende tafereelen geschetst (i) vols., 183-44) and lo mornaamste geschiedenissen zan Noord-Nederland un zijne kinderen ererhath ( 4 vols., $1845-19$ ). Besides these numerous works, he collaborated uma about lifty different journals and periodicals. See his Life and a biblingraphy of his works in J. ten Brink, (ieschiedenis der Aoord Diderl. Letteren (vol. i., Amsterdam, 188s).
A. R. Marenl.

## Lemi-Lenape: See Algonqutan Inpmas

Lemnox, Charlote Ramsay : author: b. in New York in 1720, ber father, Cul. Junes Ramsay, being lientenant-governor of the province; went to Lonion at the age of fifteen, and married; on becoming a wilow devoted herself to literature, and wrote novels which obtained great popularity, She enjoyed the friendship of Richardson and Dr. Johnom. Anong her works were a volume of Popms (10) : The Fomale Quiaote (17.3); Shakspeare Illuslruted (1033-5) : 1 collection of tales used hy Shakspeare in his plots; Im mietta. a Novel (15is): Philunder, a Dramatic Pastarul (1558); Sophia (1763) : Futher Brumoy's Grept Theuter; and a translation of the Duke of Sully's Memoirs (1i61). D. in London, Jan. A, isot.

Revised by 11. A. Bezrs
Lemon, Earli uf: See stewart, Fome, ahd MatTHEW.

Lemuox Lord George Menry: general: b. in Eigramd, Nov. 29, 1734; was secomd onn to tharle lemmex, weond Duke of Richmond; entered the army in 12.51 ; distinguished himself in the (ieman campaigns as aide-le-camp to the Duke of Cumberland (175) and to the king (176:) ; enteron Parliament in 1:01; attended his hrother, the thirl lobk of Riehmond, in his embassy to France in 10, major-general in 1:ia; constable of the Thwer of lamblom and governor of Plymouth in 16:3; general and member of the privy council in 1793 . D. at Stoke l'ark, Mar. ㅇ.? 1805.

Lennox Lord Wildian l'itt: suldiar aml anthef: is. in

 at Weatminster: entered the army: was for sume pata at tacheal to the stall of tho I Puke of Wi-llington; was at whe minnus contributor to The spmetin! líne and to serveral magazines and newsaprs. Ahulir his woth are ('mophon

 Recrations of a Syortamun (1stis): Fifty Fars Rimeroph-
 ly (186t); and Drufts on aty Memory (1-4ja). 1). Fible 1z, $10<1$.

Lemoxville: town and railwas statino f limmty sher-
 bee, ref. $6-C$ ). It is the sat of the Bishamis rallege and Bishopis College Schowl. Pop, Noo.
 ologist: b. in Paris, Franes, lime 1, An?: stulied law; traveled in Italy, where he gater sperial attention to arehe-
 Champollion the younger to litypt in 150. : took an active part as a member of the commission for exploring the Morea ; became after the revolution of 1 N:0 dint of the seetion of fine arts at the ministry of the interime kerper of books and antiquities at the Loyal hibrary, motemor at the Sorbone (1835), and l'rofeson of Fexptian Areherongy at the College of France and conservatio of the lioval hihrary. Gmitting his namerons treatises on art, numismaties, ceramies, the religion and histury of Exypt, we may mention his Trisor de numinmatique of do glyptique (2i) vols. l'aris, 1851): Intrometion a lhistuire oritntule (1838);
 monts certmoyraphiques (t whlo, 1wal); (Uuestions lis-
 -llis wife, AMÉaE, who was a nicce of Madame Récanier, editel the correspondence uf that celdmand lady (1503). besides writing works on Modame de Stult (1862) and the Women of the Revolution (1asj).

Revised by Alfren Gumemax.
Lenormant, Francons: archambrist : son of Charles Lenormant : H. in Paris, dan. 17. 1s:if was elucated by his father. Ile was especially prominent for lis important resatreles in the Aceadian languace: and after traveling in Eisyat Turkey, and Greece becane in 1sit l'rofesor of Archandey at the libliotherpe. Among his very numerous warks are Mumal of the Ancimit Mistory of the East
 the wark) : Leftres assyriolengiquts et ipiquapheques (i) vols,
 Efudes acculiemes (1s:3-7t); La Mugit ches les A.ssyriens (1sit): and Les promirios ('ivilisations (10it): Essue sur la propmgation de lulphebt phincien dans l'maion
 by the fact that lenomant formed inseriptions fur the parlinse of proving a pet hypotheris): Lat momnaie de lumtiquite ( 1 sis, 8 cols.), one of the beet warks on the subject ;
 tour in the little-known extreme south of Italy, a sumplement to which is i Trarers l'Apulip et lo Lucanie (1N世3): Les origines the lhistoire ditpris le Bithe (3 wols, 1sst). ILe also edited, from a mannseript of his fathor, Hemoives sur les peintures de I'olymote. Itus la Lesché de It lphes



Ravisul liy flyred (ichemas.
Le Nôtre, le-nätr, Anhes: lambapm-gatlener: h. in
 together with Lebrun; lail ont the gardens of Vaux-leVicomte. Fhuquet's famous chatean, and afterward succeeded his father as dipectur of the garkms helomging to the royal resitences. 11 nath out the sarmens of Veraillese Trianon, Sto-Gormain, and Fontaineldutu: also At.ellond,
 the Prince of Comli: Vilnerz-boterets. Manlon, (laillot, Siver, ete., and extabli-hed thoretre the formal and statoly st yle of hamsape-samening whinh smonl oner the whole of Europe and maintainel itald for beaty a crotury. In 1tibt he first arranged the sardens of the "luiluris. the rereived many honors and ditinctions. aml in lhat was mate
 ited England and latisl out the parks of (ireenwich and St. James. I) in Paris, Sept. 15, 1700.
 mand


 Thar＂（2）
＇That wath coldurat of a leme is really comble of forming a

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Fig． 5.
（lan following expriment，which also serves for determining tha rexistenm athin chatater of the aberation in a lens to be tached．This is shown in Fig． 5 ，in which rays A A＇， $13 \mathrm{~B}^{\prime}$ ， （ ${ }^{\prime}$ in sern to come to focus at different distances from the lens－in amoname with the prineiple just stated．

If in front of a lens of lare siperture an opmque sereen $16 h_{1+1}$ ！as whe to the surface of the glass as possible，it will lo foumd that with a sin－ whe small aperture（a）through the arrepn，sol phame that rays from a light－murne（C）reach any bertion of the face of the lunts，at well－definal image will In formed at（（l＇ig．6）．L＂mon mowing the wrom preeptible moliont of（ will be noticed． amd it will be found that when $a$ is in that axis of the lens，$($ will he in prerfert focus at a greatar alistane than when a allaws light tor reach some ele－ ment of the has near the edge of the latter．


If two whore openings lue
Fig． 6.
matu flarough the sereen permitting dight to pass through smalll furtinus of the lans not situated in the same anmular
 of the somper of light，the various images overlapping，but sut，in

If the mumber of opronings be incroased indefinitely until the＂ntire aperture of the lens is utilizen，then these fanges will he merem in a simeta une，whith，however，will not be mearly so whl dofined as the elementary images of which it is＂ompracel．
＇I＇he amonit of spherical aberration varies with the ratio letwon the radia of curvature of the surfaces of a lens，with
 rass．It ic amsiblo by the proper babancing of these factors te alimante it almon entirely，an end mote casily reached， howner，hy uniot a combination of two or three properly
 abolration is said for lay anatio．
fhromotic aborvation＂Hfors a more serions difficulty in than motrotion of the lems．This defect arises from the fian that lemses wre nsed for the transmission of composite
 tol 1 ． 10 in ifern less in the violet．The indes of refraction Lur the hatwe wate－lagth will he much higher than for the
rad－1：5：in


 （13 1才ロ éase of lutsomíato from －Mrrictal abur－ ritlom，will ly lownerlat for



Fro． 7. ＂19 tha lerns：as －hw in litis，where $V^{+}$is the foral poind for violel and $\mathbf{R}$

ing tints of the visible spoctrum，White still nearer to tho lens than $V$ the short waves of the ultra riolet come to focus．

Fortumately glass is a mixture of variable composition． and is capable of being mate with a wide range of yitical propertios．The indices of refretion of two extreme varie－ ties of glass are given for illustration in the following table：

1NTACES OF REFRACMIN．

|  | Crown elass． | Dense Hint－glass． |
| :---: | :---: | :---: |
| A．．．．．．．．．．．．．．．${ }^{\text {Lines．}}$ | $\begin{gathered} (8) \\ 1 \\ 1509 \end{gathered}$ | $\begin{gathered} \text { (n) } \\ 1 \end{gathered}$ |
| B． | 1811 | 1－91 |
| C | 1.512 | $1 \cdot 103$ |
| D | 1515 | 1.510 |
| E | 1 1515 | 1－1\％ |
| F． | 1521 | 1 1－2 |
| G | 1302 | 1743 |
|  | 1.532 | 1 \％\％\％ |

Thus it is possible to select glass of high or of low dis－ persive power．The ratio of the indices of rafraction for red $(C)$ and blue－green $(F)$ light in the case of crown－glase． for example，may be $\frac{1551}{1.512}=1.0059$ ，while for heary flint－ glass the same rays may give a ratio $\frac{1 \cdot 05}{1 \cdot 0.03}=1.0141$ ．The dispersive power of these specimens of ulas，computed for the range of $B \ldots M$ by means of the usual formula

$$
I=\frac{N_{\mathrm{b}}-N_{\mathrm{b}},}{N_{\mathrm{e}}-1}
$$

is 0408 （erown）and $07 \pi 9$（thint）．By making a dispersive lens of the latter and a propery proportioned convex lens of shorter focal length of the furmer glats，and using the two tugether（see Fir．S），it is possible to obtain a combination which will bring red and bhe to the same focal point．Suchanarrangement is termed an achromatice system or combination， or sonctimes simply an achromatic Flint Jens．

The size of the image promeed by a lens depends upon the foral length of the latter，and is independent of the aperture the law bring that the linear dimensions of the image are directly proportional to its distance from the lens．The brightness of the image is directly proportional to the ard of the aperture and inversely proportional to the square of the lineur di－ mensions of the imare itself．The deftution of the image depends upon the accuracy of configaration，the complete－ ness with which the corrections for sherical and chronatic aberration are made，and upon judicions reduction of the aperture by means of suitallde diapharms．
Owing to the supreme impurtance which optical instru－ ments powses in the alyancement of science．great atter－ tion has been given to lens－making．The present very high state of the art，as exhibited in the lest teleseones and mi－ eroscones has bepn reached（1）hy the develommont of the process of arimbing to a degre of extrambary precision： （2）by imporenents of glas－making，which make it possible to secure great uniformity and hommendity with freatom from stria and of ther opitall imperfectimis due to inter－ nal strains：（3）by the intruluetion of now varietion of glase possessiner the optical properties demanded for the construc－ tion of achromatic and aplanatic systems of lensere．

E．La．Nirmols．
Len＇ström，Carl Jutits，Ph．D．．D．D．：poet and critie； b．at Gelle，Sweden，Mat 7,1811 ：sterdied at Trasala；gradu－ ated as a loctor of philosohy $1 \mathbf{3}$ ．sthatiod hivinite amd entered the priesthwa 18：3：was cratma a doctor if divin－ ity 1860；wats appointed Aosistant Profossor uf literature in 1836．and rector at the lishopis ape of Ltpala in 14．5：Len－ ström＇s writinge comprive onbjecto of the most yaried nature－religions solences，philnophy，anthetira，histury of literature and art．linguistice，literatime We maymontion among his numerons writings Latoblok i nllmethut ork svensta hyrkohistorion（Compendimo of Cumpal and Bwe－

 Bidrag till den srenstin axphetikens historm（Contrimations to the IIIstory of Swelish，Esthotics，184日）：Sumstu pupsiens：
 rutur－och bomst historn（history if swedish Literature ame Art，1841）：Ondbok afer helsing dialerten（bictignars of tha Hetsing Dialect，1841）：Githbröllopet（The Golden Weddins．
 villare life（1sss）；（romuell，an histurical ！nem（1atio）：（ius． taf $M$ ．Adoff，historical songs（1－5j0）；It fyra stamden，tellor ur suenskt stadif（Thu Fonr Classes，sketehes from Swedioh social lite， 186.9 ．Besides，he has published surmons，tran－ lations，ete．From 1539－40 he edited the literary journal Eos．D．Apr．6，1sd3．

1＇．（ikutil．
Lent［M．Bing．lenten＜O．Fing．Lengton，spring，lent ；ce． O．II．Germ．lenzin，lanyiz $>$ Mol．Germ．lenz，squing］：Whe fant of forty days（not coming sumbays which begin with Ash Wetmestay and ends with Eator sumbly．It is oh－ serva ly the Eatern，loman，Anglican，Latheran，and sume other charehtes．It commommates the fonty days＇ fist of our lord in the wilderness．The（irnek＇hurch lengthens it toforty－eight days．lievised by W．S．Jerry．

Lentando［Ital．，litar．，slowing．pres．partic．of lentare， make slow，fron Lat．Lentus，show］：in misic，at term which， when applied to a serins of notes，signities a gradual and regular decotase of rapidity．It fremently oecurs in con－ netion with tinal caldure，and in passages marked as ex－ presive．wher it has the effect of a gradual dying ont or melting away of the somm into emmative stilliness．

Lentil［from O．Fr．lentille＜Lat．lenticulor，dimin．of lens，lentis，hentil．（＇f．Lexs］：an ammal leguminous herb of the Ohd Word，the Ereme tons，resembling the vetelo or 102，and extensiwdy conltivated as fonk．The seed is the patemployed．It is smaller，mone nutritive and more di－ Eestible than the pea．There are many varieties．It grows Well on the poorest lamds．Lentil flum is used for invalids． The vine is small，hut affords excellant fomber fur sheep， hosese and cattle．Fresenius fomm in 100 parts of air－drimd
 lulose，pectint，＂te．， 1 ？and 23 and water 14 ．
Lentini，len－tee＇ne［Ital．＜lat．Leontime the ancient name］：town in the province of Syacuse，Sieily：ahont 23 miles N． II ．of the eity of syracuse（see map of Italy．rof． 10－F）．Interesting vestiges of the ancient cit $y$ ，such as re－ mains of aqueducte，cisterns，tombe，ete．．exist，and vases． cobins and insoriptions are fomal．In its meishborlood are the ruins of the castle of Bricinia，mentioned by Ihucrdides． In 426 b．c．leatini sent to Athens for help againt syra－ cuse．In 214 r．c．it fell into the hands of the Romans． The present town is composed of repertahb hombinge and the strects are commodions．Its trade and industry are considerahle．Pop！12， 800 ．
Lentimo，dacopo，Ia，commonly known as Il Notaio ded 1，extavo：carly lalian pent ：thomished in the first half of the thirtenth century．Dante（ I＇urg．．xxir．，56）spath of him as one of the leaders uf the so－called Sicilian sthme of ghets．Ahont nothing is known of his life．If，allumes．in
 ＂Pultermo，in Murandi，Antol．delle criticu modernu．＂：th （ad．10．9）think he stmbed at lownga and liven for some time in Tuscany．Wie have from him lyrice in the conven－ tional trmbadiar style of the carlico Italian poets，and a tenzone in smmeto with Ifier della Viqua and Jamon No－
 schulp（1ベーシ）．

A．I：Marall．
Len＇tulus：the name of a celelotated patrieim family of anciont lome belongine to the ytas corneliu．One of the
 nolins Lentulus sura．Ite was combul in il p，c．，but in the futhowing year he was ejortel from the spatat，thepther with


 oracle，whu thouh role Romw in ima and sulla hat gone tofore hime，he unital himself with（atiline－hand．and atter the departure of tho leader from the city asomed
 his irresolntint and waknes．the phan of turning the rity and of murdtrine the wencol ant nther fatrink wa－fruso trated．While him impalane in divalgine timphan of the

 armest of the beatere of the con－pirser．With them he was condemund without trial，and put on hath in the pollice


## LEO I.

 N. An w.






 Whreto
 I...n: and (in, the (19.91).





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 cun matro ahout July en and leares ahont Ane. 路. The

 sizn birge ath matains many ramarkule netulat.





 contut of ha furpug tirth ant dran erend raitul Len to


























 Lat known an icontolam, which disturbed the empire for
 bunt of the ediet was a graral commotion, especially in

 of 'onstantine V .. whom the sumewdent. He was mild and


 arny and eathal the throne hy a long sorics of treasonalle anc:- but having une extabinthed himself firmly on the thene ly his lailliant sieturiwe wer the langarians and Aralo, lai shused himerlf an andministrator of meommon abtility. Lefomen wete introlucel, and the whele adminis-

 enated the whenapus of imates with great severity. At Jan a donpmrat? was formol, and be was mardered on (hrimman laby in a churels, huffe the altar.-Leo Vl., The

 known fin his writings. Ilis orucula is a poem in iambie
 are seramb edifions of it . Dis Orationes, numbering thirtythrow ant compused monly on thenlonical suljects; there is mo chloded adition of them. hat some are found in laronims's . Imaters, whws in Bibliothecta patrum, ete. Nore infurtant wan his treatise on milhary affairs, mostly consisting of "xtracts from other writers. There exist many alition of this work, as well as an English translation ly


Leo l., Sant: proe: regardel by ming Protestants as Hhe first real pole, and surnamed The Gheat ; 1 , about 390 , Hobably in Rome: in carly life displayet uncommon zeal, homblefor, and capacity, and was often employed by the f"pes unn important eceleaiastiond and politionl duties; wan chath f"pre in 40, though only a deatem. Leo opposed the lehagian, Maniehean, Privellian, and Ent ychian heresies; lahoral with great ability for the extension of the Roman pimace: visited Attila in persnn (45N) and induced him to
 shrie, he succeded in moderating the Ferocity of the attack. He was the first pate to hoh the monarchical theory of the funter. Lay diod Kov. 10, 461. Of the many editions of his writinge the best is that of the Ballerini (Venice, $503-$ \%in). Sece EEnglish transtation of his Select Epislles and shomm. in rol. xii. of the series of the edition of the Niophe ant lost-Nicene Fithers (New York). See his liffe by R, ferthel (man. 1843)- - Leo II., Sant, beeame wian in lixe, and died in 6se.-Leo IlI., a Roman, became foll in fin: anwned Charlmagne Emperor of the West, and fremel linur from Byzantine domination. 1). June 11,
 Lemine wall about the Vatican suhurb, which is hence (alleti the Letsine C'ity: restored the town of Porto, which
 sirtod), 12 miles from Civita Yecehia. I) duly $17,855 .-$ Law 1. a bondictine and cardinal, becane pope 0 ct. 88 ,




 an Akatian, consin-gemm to Conrad the Salic. b. June 21, 10n2: beranu hishup of Toul in 102t; was pelehrated for lompiner ; Was mominated prom at Woms in 1018, and recogmixal all limme in fols! ; was largely under the indmence of Hihdoramb, afterward (iregory Vli. The great events of ho pontificate wer the borngarian controversy and the grat exeptions ha and liadmamamade for the extension







 What lide: by the and uf the emprer, the pepa. Venice,


splendor of the papal court: his extensive patronage of learning and art ; the reorganization of the ['hivernity of Rome, and the establishment of a emomitters mater the presidenty of Lascaris for the phblication of (ireek manuseripts; the seandalons and opmon sab: of imbulyences in order to procure the necessary means of builhing st. I'eteres eharch; the origination of the Reformation umber the influence of Luther, at which be at tirst langhed as a ludicrons monkish quarrel; the eonfirmation amb extemaion of the Spanish power in Italy; amd the timal suppresom of the Florentine republic. As a jrince. Veo hat illustrious qualities; as an ecelesiastie, ho ererainly Jathen, as mush from a lack of the ecolesiastieal spirit is from a want of knowledge of the tembencies of the eritical times in which he lived. siee W. Rencoe, Life and I'ontiftate of Len X. (London, Bohn's Library) : M. (rejirhton, Mistory of the Papacy during the Period of the Reformation (vols. iii.-v.).-Leo Kl. (Alessandio Ottaviano de" Mede"i), a srand nephew of Leo X., b, at Florence 1535: became binhop of I'istoia 1573; Arelibishop of Florence 15.t; cardinal 1swis; pope 1605 ; died Apr. 27, 1605, after a pontificate of twentysix days-lso XII. (Immibule della trenga), b. Ang. ge. 1760 ; became Archbishop of Tyre 1703; carlinal in 1816 pope in 1823 ; extended papal authority, and refomed some points of the temporal ad spiritual administration. I). Feb. 10, 1829.-Leo Xlll. (Gioracehino Iincenzo Iecti), h. at Carpincto, Nar. 2,1810 , in the diocese of Amagni; became a titular archbishop 1843 : a cardinal in 1853; chamberlain of the Sacred College in $187 \%$, and poue in 1878 , having been elected Feh. 20 ant erowned Mar. 3 . See his Life, by B . O'heilly (New York, 188 ). Revised by s, M, Jicksis.

Leo, lā $\bar{o}$, Ilennricu: historian ; b. at Rudolstinlt, Mar. 19 , 1790. Ilaving settled in 1828 as Profussor in Ilistory at the University of lialle, he developed a great produrtivity, following more or less closely the tracks of lhagel's jelda in his Handbuch der Geschichte lles Mittelalters (1s.30); (ipachirhte der italienischen Staten (5 vols., 1\&29) : Zü̈lf Bürher miederländischer (ieschichten (2vols.,18;2-35). Havingrhanged in favor of ultra-reactionary tendencies, he wrote Lehrbuch der Universalyeschirhte ( 6 vols., $1835-44$ ), and Leitfadene für den Unterricht in der Lniversulgeschichte ( 4 vols., 183840 ), and a number of articles in the Erangeleshe hirchenzeitung. Ile was long editor of the IIallosshe (orhenblatt. I). Apr. 24, 1878. Ilis autobiogrejhy up to 1822 , 1 us meiner dugendzeit, was published in 1880 .

Le'o Africa'niss [ Lat., liter., Leo the African], Joanses, originally mamed Al llassan lan MonamaEd: feostupher ; b. at Granada, spain, about 1485 , of Moorish parents, whe emigrated to Fez in Norocco after the eapture of Granala by the Spaniards. At sixteen he aecompanied an uncle on an embassy to Timbuetoo, and afterwarl traveled throngh several countrias of Northern and Central Africa, penetrat ing Bornu to Nabia, descending the Nile, ant extending his explorations into Persia. leturning from Constantinople by sea in 1517, he was captured by corsairs and taken to Rome, where he became a Christian, was patronized by I"川re Leo X., whose name he took, learmed Ttalian and Latin, and taught Arabic. 1). at 'lunis in 1526 ( $)$. Il is great work the Description of 1 fricu, was written in A rabic, publishal in Italian by hamusio (1550), and in Latin by Elzevir (16:3)).

## Leo Allatirs : See Allatris.

Leoelı'ares [in Gry, Aew $\chi$ áp ${ }^{\prime} s$ ] : an Athenian sculptor (350) B. C.), who co-operated with Scopas, Ibyasis, mbl'limotheus in the sculptures on the sites of the Wioncoleamiat llalicarnassus. Besides statues of the gods (\%eus, Apollo, Ares, ete.), he male portrait-statues also (Isocrates, Alexander the Great, etc.) ; he assisted Lxsipus in his group representing Alexander in the lion-ehase. The made in luronze a group representing the rape of Ganymede by the arole of Zens, a marble eopy of which is in the Vatican. Pliny (3) - Fin) smaks of the group with enthosiasin.
J. R. S. sterretr.

Leo Diaéonns [Gr., liter., Leo the leamon]: byazintine historian ; b. about 9.50; d, about 995. Ile sitw the deposition of Nicephurns Il. Phocas (960), and accumphanied Basi] 1l. in the war against the bugarians (asl). llis history of the events which took flaco from !og to 90.5 is bally written, but contains valuable information. This wonk was first published by llase (latis, lst!), aml reisobed in the (orpus Mistorice Byzantinue (bomm, $1 \times 2 \times$.

Leominster, lemster : town ; in the connty ul Horeford Englamb, on the Imgot, 13 miles N. of Ilemotoml (swe mat) of England, ref. $10-\mathrm{F}^{2}$ ). It is the center of the most ecte-
brated cattle-breeding distriot of lengland, fand has sume mamblatures of loather and wenlens, of iron and lirass wate, of gloves and hats, and a trate in hojs and cider. [on. (18:1) 5,675.
Leominster : town: Woreoster en, Mass. (for loneation of
 river, and the Fitchborg and the (Ila (onlony railwas: 18 miles N. of Worcester, fo milns N. W'. uf lósonon. It has

 13,000 volumas, and a weekly mowsjiturer, uml manufactures
 woolen forms, tamet? and iurrial lather, chilaron's car-
 (1595) $9,211$.

Whator m " Faterpmas."
 comprising an area of $6,16 \%$ an. miles. It is coverod with mountain rances, which, especially in the morthern part. inclose beatiful, wetl-watererl, and fertile vallers, while the eastern parts are more level ind allome exeellent phsturage. Large flocks of merino sheep are rearel ; thas, hemp, maze, and fruits are rabed, and many modicinal lerds gathered. Together with the provine of of Samanea and Kammara it formod the former kingdom of lem, fommed abuat roto by Alfonzo the Catholic, who cuncureme it trom the saracens, and was united to Castile by Pertimand Ill, in 1230. 1"ор. (1885) 880.209.

Leon: the capital of the province of leon, fiain ; at the
 N. W. of Matrid (see map of Spain, fef. l:-I) , Since the annexation of the olla kinglon of lan to ('astila the eity has lost its importanct, and is, in ermeral, in a state of decay. lis cathedral, built in the fumetenth century and restored 1sis-bs is one of the mont elegant suecimens of Guthie architecture extant. lop. (188i) 1:3,446.

Laon (sometimes called Latacuncia, from the capital) : a central province of Eenador, immediately s. of Quito, and almost entirely in the Andean plation. Area, 2.54 sa. milos; extimated ponnlation (18! 10 ) 10:,600. C'otomaxi lies on the nort hem bumbary; the streams flow east ward, forming the Pastaza, an atlument of the Napo. Agriculture and crazing are the only industries.
11. 11. s.

Leon, or Leont de los Aldamas: a city in the western bart of the state of Gmanajnato, Alexico, near the western extremity of the alluvial plain or bajio of finanajuato; $5,60 \mathrm{ftet}$ above the sea (see map of Hexito, ref. 6-(i). The Mexican Central lailway runs close to the town, the elistance from Mexico city leeing Dis miles. The pain mentioned is one of the richost cereal beltsin the repmblice and to it Leon owes most of its importance; but it is sulijeet to destructive floods from the overflowing of slreams: one of these floods in $\mathbf{1 s s} 9$ overwhelmed the rity, and more than $\because \because, 000$ jersons weye drowned. Leon is noted for its mannfactures of saldlery and leather-work, satul to be the finent produced in Mexioo; it also makes emara womlen amel rotton goorls, soap, and cutlery. There is a the square, with several large public buiddings and a catledral. 'The pace was founcled in 1506 , but its importance dates from 1836 , when it was raised to the rank of a city. Jop. (accoriling to ('ubas, 1859 ) 50,000 . In wealth and mportance it is much behind Guadalajara and Puebla. llerbert II. smith.

Leon : a city in the western part of Nicaragua: 50 miles IV. N. W. of Lake Nanagua, and abont the sime distanee from the Pacific coast at Corinto: wh the railway from Corinto to Minagua and Granala (see maps of ('entral ineriea, ref. $\mathbf{6 - G}$ (i). The city is built on at fine plan, abmat 200 feet abore sea-level. The most motalue buidenes is the rathedral, an immense ugly structure, huilt $17+6$ it at an expmone of $\div 5,000,000$. Comnertel with it i, the collter of sin lioman, foumded in 16 Ts, ant long one of the most cold brated institutions of learning in Amerjea. 'The hishoj's falaco and the (iovernment buikdings are also wontly of note: :reveral formor monasteries are used for sthmbs. st lampital. ate. Leon was origimally fombed (152:3) by Franceran Ileratalez de Cordoha, on the western sithe of Lakt Mamama, and Chancerl to the present site in 1630. It was tho caulal of the colonial province and of the rapula! antil 1sion, amb was formerly much more popmans. It in still the largest city of Sioragua, and the shat uf the hishnmi": hut it has sufferel greatly in the eivil wars. Fistimatod furmlation
 which is really the origimal town, havine existol lefore the


 Iff bunton with the British fome（1aia）；rasided for a time





 mathomatician；1．at lisia，about 18．i．He traveled exten－ －indy in the Fint in order to stmly elifferent arithmetieal
 when he math the Arabe sotem of arithmetie better un－
 tion on tha equatio of mumbers which is lam．In 1002 he cumbnal his ervat work，Liber thburi；the latter word crigually domoted an inetrment of calculation，and is em－ phend biy ham anderaldesmation of arithmet ics．This
 mad han Masa，writton toward the middle of the ninth cen－
 thiws low algedra may be apdied to geometry．It was publishal in a aphendil edition hy Bonempagni（Rome． 18in）．
jbowis A．Grusiesor．
Lewnado da Vinci，veen che ：painter，seoptor，arehi－

 Wral won of hir licw，an ohscure notary of Florence，and a woman mamed Catarima．His father took him home，and Gaw him aton！ducation．The boy showed such an apti－ fuld fur the ats that Jiero placed him with Verrocehio，a
 ho remainel from his forteenth to his twentieth year．In 1 An 1 or $14 \times 3$ he went to Milan，having offered his serviees to the buke Ladovico if thoro in a remarkable letter，of whieh ：manouraph coly exist：in the Ambrosian Litrary a Nilan． In this lether lamarto appars bess an artist than as a military uginery；he dectares himself prepared to under－ take any wonk that may the required for military offonse or Anforne－tomath bridges，scaling－lahlers，camon，batteries； and after lomit dail of his skifl in such matters，onty at the unt of his lutter refers to his acemplishments as a sentptor， ardhated，and painter．In the service of Lodovico he exe－ （ruted sivaral important works－the model for the equestrian stithe of lumion sforza，the duke＇s father，the phans for tho Martusibat（＇anal，and the famous Last Supper，a fresco in mis paintal on the wall of the refectory of the convent of sta．Maria delle（irazie．The model for the statue has dis－ Mpnatial：it＂as probably destroyed in the course of the war hotwem Frane and Mitin．The ！resco owing parly to ill Tratment and partly to ilae process by which it was painted， is so danaged hato it can mot be sad to exist．In 1490 Leo－ namberatumblo Fhomed but after a short stay he entered thmervice of Casar lintria，whande him his chief engineer and cmplow him in tumpor varions phans for the improve－ naw of the tervitory of the limagra and Lrhino．At this time he was invind hy the segniony of Florence to paint the wall－of the costuril－hall af the lalazzo Vecelho in conjunction with dichulan－ilo．Il．Bergan the work．Imt waried of it， am？abmonol it on the invitation of Charles d＇Amberise，
 ant of lanis Xil．of Frame．Lemardo rmaned in Milan till it was atambingl hy the French．when he went to kome in the conmpay of Giilian de Nedini，whe was to assist in

 anded hambarly．be hatumed to join that monarch，who had alrady in lion dexired to attarh him to his service， and had namal him his comet paintrr．He was welcomed
 whe gate him a home at thonx，near his dhatem of Am－




 of lamat he ：



 manal the siben acmunt of Leonardis scientitic babors．
and his ingenuity led him to investigate in every direction, and had he not heen of so unstable and discurciwe at mind his speculations might have produced some frnit. Nodnubt much more would have come of them if they hal bern mate common property by being printed, but they were whly emmmitted to writing amd remain to this day in mamseript. See Vasari, Lives of Painters, Sculptors, unt Arehitemts: Charles Clénent, Michel-ange, Léunuarl de Vinci, Rophnel (Paris. 1466): Amime Monsaye. Histoipe de Limmerd de Vinci; de Stenthal. Mistoire de le Irinture on Ithlip: Leonardo det Vinci und his Whors. conssting of the hife. by Mrs. Charles 1leatom, and an Esseng on hes Se Contitic ind Lilerary Works, by C.. C., Black, illustratnd hy twaty permanent photorraphs (Lomdon. 1sion). Valuable alds in the study of da Vincis drawings will he foum! in soveral work. The Suggio delle opere di Leomemb da Vaci (Milan. 1-i?). published in enmmemoration of hemariles secomb centenary, eontans specimens ondid by photo-lithography from the largest of the thirteen whmes of mamseript heft be Leonarlo. calletl. from its size, the codice Altontice, which is preserved in the Ambrasian Lihrary at Milan. More ©xtensive and valuable publications are Les Dumaserits de Léonard de Y'inci, Le MS. A., Dy M. Charles LavaismolMollien (Paris. 1s81), the first part of a emtemplaterl rupablication of the manseripts of Lemardo in the National Library of France and The Literery Horks of Lewnerdn dit Finci, edited from the original manuscriges hy S. P. Ridnter (London, 188:3).
Lemindas (in (ir. Aewriás): King of Sparta: sulteeded his half-hrother. Cleomenes, about fio B. $C$.. ind was sent in the spring of 4s0, when the Persime hat ennquered alacedonia, to defend the defles of Thermonylac. lutwern Mt (Eta and the Naliae Giolf. With the ch-operation of a flet in the gulf, the defiles combl the defended by a compratively small army, hut the Greek lleet was unfit for thathe at thi moment the Persian attack legan. and, what was still woris. the Greeks had forgotten to occuly a practicable pathway which led aeross Mft. (Eta, and whith was shown to the Persians by a traitor, Ephialtes. For two lays the (irenks resisten the barlarian host with great valor: thu Powath losses were enormous. At daybreak on the third hay heonidas learned that the Persians had fombt the pathway and were coming in masses across the monatain. 'I'here was still time to retreat: hut, having sent away his inxiliary troops, Leonians with his mot spartans rematned in the defiles, and, ocenying a small hill in the center of the pusition, they fought to the last man.
Leondas: the name of two poes whose remains are freserved in the Greak. Anthology. The firmer, a native uf Tarentum, flourished about b. c. 26.6 . Ne was a pexertystricken wanderer, who compused dedicatory pingams fir the plain prople. His mems, many of them in the Horic dialeet occupy 100 numbers in the Greek Anthology, ant are interesting by reason of the humble where in which they move, their rich verabulary, and the skillful matagement of the verse-The other, of Ahexadria, lived in the reign of Nero at Rome. In the - Anthelogy there are firtythree epigrams axeribed to him. He was a jejune vormowright and manufactured distichs in whith the letters of certain worls or lines taken together have equal mumpinal values. The moms of both are edited lay Jacols in the Anthologia (irem, and by Meineke (baibig. 1:! 1) .
13. 1. (illidermefene.

Léonine Verse [named from Leo, Benabitine canon of St. Vietor, Paris, in the twelfth century, who wrote bargely in this measure]: the rhyming hexameter, pentamotops or clegiae verse, especialy "in hatin. Traces of this rhymin practice appear in Uvid, and even in earlicr puets, the the eustom prevailed extensively in the Midhe Ares, the rhyme being often barmaronsly imperfect, and the meter not ninch better. A familiar example is

## Lremon languebat, monachus tunc esse volebat Ast ubi convaluit, mansit ut ante fuit.

Leon'. Isla de : an island on the south coact of Suain, in the Athantie, 10 milo: long by browl. on which is the city and port of Isla de Leem (also eallm simn Fermman). The eity was in 1810 the capital of spain under the regeney. and was the seene of the first constitntionat mosement of 1820. It is strongly fortified, has two hospitals, several cunrents, and an exemilent olservatory. Pop. 10,000.

Leonna'tus (in (ir. Acóvaqos): Macedmiam reneral: b, at Pella, of prineely stock; beenme one of the hodyguard of Philip, and pursued and slew Philip's murderer. Afterwart
he became one of Alexambers gromats and humed for savo his life, hesides distingnishine himself in Inlia, buth an genfrat and civil govemor, Ather his methen from lmatia, Anesamber rewarded him with a gulden orown. Alomis with
 with which Hoxana wa- prenant. Un the divisinn oll the empire he received lhrygia larva an his shate. During the Lamax War (q. e.) he marelmel from bhryequ the afl of Antigater, and was killed in the batte narar lamia.
d. li. s. steriett.

## Lemi Pilelo. Antoxio, de: Sice Piselo. <br> Leontini: Sce Lemtini.

 dassical scholar: a mative of Salniki, ancording to \& Andy, hut 1!allan makes him (on the imathority of letrarch's lettom) a

 lis native languace. He was the first whe publicly lectured on Ifomer in Western Europe, and the first manerid transbate that pret into latin. This rersinn was, likn that of Livins Andronicus, uncomth to an extreme and almos verhatim (Irum cene Dtu IPlitle - Ichillis, 'orruptibilum que innmerabiles dirucis dolores pusuit.- liom milhi prente. 1husf, multimodum qui ruld multum Errivit pustynem sucram civitatem Troice deproduths fuith, Leaving Florence be sisited Venice, where he met Petrarch, whe had studied Greek under harlam. Thome be went to Constantinople. Returning to Italy sombafter. he wa-kilhed by lightning within sight of the Ahriatic (13) (if). Ghon deseriber his appearance amb manners as replaire. (Itecline and Fall. vol. viii.. 1 ? 14.) From him Buceacein unfortunately collected the materiats for his treatise on the genealngy of the heathen grols. Sere (iibmut l. $r_{\text {a }}$ : Ilowly, He cimeris illtestribus, mp. 1-11: Voigt, Hiederbelebung des cluss. Alterthrons. İ., 19. 110-11).
hi-sived hy A.freb (idpemas.
Leopard [viâ O. Fr. from L.al. luput dus = (if. 入єómapoos. liter.. lion-panther: $\lambda \epsilon \in \omega v$, lion $+\pi$ ápoos, panther, parl. The namp leopuerlus was riginally aplied to the cheetah, from the belief that it was the offering of the lim and panther. The name has been transfored from the chetah (f'ymeLurus jubetus) to the animal now hearing it, while part has becme obsotete]: a large anothelmenhm of the cat family, the Felis pumhe of Limavas. limme throughot the greater part of Africa, sonthern Asia, and the islate of Ceglon, Java, sumatra, and bomen. The endor varion acording to the hature of the region, from pale fawn to derg butf, fading into white on the under sile of the buly and inner portims of the limhs. The coat is thickly markell with gots

of hack, or deep brown, arranued on the back amb sides in rosettes. These rosettes have me molral spot, such as is frome in the jarmar. Totally blank indivituals, "ano of melanism, sometimes ofecur in sumbers Asia. The buly of

 jaguar and largest specimeno of the puma in the Siw. The leopard inhatits wanded dintricts, and is a gond dimber. White preying principally math animake the leoprorl is very destructive to catilim in anm localitios, and also to man. suo ment and 15000 eattle haviner been destroyed in lndia in a single year.


Thekreman in his Eisorys．His works have heen translated



（iEORGE Jendelari．

 －imond－wot a a boy a strong phsolon for military affairs．



 Hu was at whe phasionate that shrewt，domintering and hand，ronel in his manmer－，hat lofiy in his ferlings．La his


 raion hor to prinooly rath，amd led a happy married dife with
 and in high and respmsibno positions mader fougene and



 it $w a l l$ an 1 he itnit ramron，am！formed the armies with whish l＇ralowd 11 ．fommded the politionl power of Jrussia． 160 wats at onno despotio amd inspiring，and that spirit－a shat uf dimandin－－wofare which the dustrians hroke down
 ！babutr．He was，however，not simply a drill－sergeant， like hik poral frienal，Frederick William 1．：he was also a n⿻日禸 sum］in 175 in the war againet the swemeswere brilliant ＂xplnits．fraderick 11．．who disliked hin！hecause of some of his antiunatal pecoularities，valued his capacitios as a －ommandor：In the first silesian war he phaced him in commanal uf the amme on the lhamoverian frontier，and in the monded he acot binio to invade saxony，where be won the bridiant witury at Kenselshori whiclo erided the war，After The Wath of dif wife，in 1745 ．he retired from all participa－ finn in pmbli，lifo，and died on his estate at Jessan，Apr． 7 ． 1ith．In＇arlyles life of Frederick the direat the de－ wrijtinns of the＂ond Dessaner are among the most pic－


Revined hy C．K゙．Abams．
L،opmil I．：King of Belgium（1世31－6．5）：b．Dec．16，1790： the sonngot sum of Thke Francis of Sixe－Coburg：received a wery radin！ulueation：was made a general in the Ras－ Dim army after the marriage of his sister to the Gramd Mnki Cuntantin＂；aceompaniad Alexamder I．to V＇iema and I＇aris in 1s14：and was maried in 1816 to the Prancess ＂hantont Augnta，heir－apprent of Great Britain．After her dath in in 15 he lived in retirement in dondon or trav－ dimer．In $18: 0$ he refused the crown of Grece，but in $1 \times 31$
 twy of lamis bhilipl＂，who hore him three ehilatren．Ilis roint was ealm and umbistarded．De was lirm，diserimi－ nalmar and prombenve in his interior poliey，and he repre－



Laopolal II．：Kime of Polgium：l．Apr．9．1835；a son of


 and ascumend the throhn lhe．10．Intis．Wo hecame sover－





 Kine of hohtomi and Empuror of Gurmany．Of his three









 alons all st．（Gothaml，on the liand， 10 n dug． 10 an armis－


Turks retained Transylvania, tw the great indishation of the Hungarians. Soon after disturbinnes arose in Hungary from the eontest betworn the natimal Protestant and the Austrian Catholic parties. Lumpld trated his pulitical endversaries with the utmost harshness, and the result was a formidable insurrection nuder the leadership, of Tökälyi in 1683. The Ilungarians solicitell Turkinh aild aml on July 14. 1683 , an army of $\boldsymbol{2} \%, 000$ men laid siege to Viennat Luopold had flet, and in spite of the valorems resi-tanee of the citizens and the garrion the cily would have fallen, and with it the power of the lomse of haphurg, if the Polish king, John Sobiceki, laal mat arvivell before its walls (hemt. 12), and completely tonted the hesieging army. The Ihmgarians submitted, and at the Whet of Prossinug (16:0) the Ilungarian crown wat derlared hereditary in the fanily of hapsumg. Leepold died in Vicma, May $\overline{0}$, 170.5.

Leopold 11.: Emperor of (iermany (1700-4?): 1, at Vienna, May 5 . 125 ; the secomb won if Frameis 1 amul Ma-
 Duke of Tuscany, and prosell himselt a liberal ami ent lightened ruler: but, like hix bether, Joseph $11 .$. and like Pombal in Portugal and strucnsee in lenmark, hew was a despotie reformer, and his reforms cansell great ammancers and disturbances. In trim he stacededed his brother in Austria and Germany, and fomd in lis asiension to the throne the vast empire in a critical state. With great tart, luwever, he managed the dillicnlt situation. He pacified Ilungary, quelled the insurrection in lelgimm, comelnded patace with Turkey at sistova in 1591, and re-estaldished the friendly relitions with Pruscia thy the enngress at Rechentbach in 1790 . Jast as he had confederated with l'russia amd Saxony for the suppurt of Lomis XYI. against his relellims subjects, he died suddenly in \iemna, Mar. 1, 1792.

Leppold II: Grand thake of Tusemy (1691-59): b. Oct 3, 1797 ; a som of the Gramd Duke Ferdinand Iht. Ite ruled in the same spirit as his grimitather, Leopold I., Emperin of Germany, under the name of Leepnhin. II. In 1847 he granted a free constitution, and although in 1 Rts he hatd to flee to Xaples, he was recalled shortly after ly his own suljects. Thas he weatherol the literal stom, But the national, which soon followed, was toos puwerfal lior him. In 1sis he fled with his family to Yienna. No regard was paill to his abdieation in faver of his son. His dominions were incorporated with the kinglom of ltaly in eonserpuence of a gopular vote, and he diel an cexile at Brandeis, in Bohpuia, Jan. 29, 1870. He edited opere di Lorenzo de Medici (t vols., 1825). See the Life by Baldassermi (1851).

Leopold, Ciristinx (ieriarb, M. D): obetetrician : h, at Meerane, saxony, Fel. 24, 1346; stulied medicine at the University of Lieipziy, gradnating M. 11. in 1sil) established himself in lefiprig in 1854: was instructor in the Leipzig Obstetrical Institute in 1851 : in 1853 levame professor extraordinary and director of the 1 bexden Obstetrical mostitute. He has male amecial investigations in the histology and pathology of the mterus and oraries. His most
 rachitische Becken (Leipris.s 18:!). S. 'T. Arsstroxg.
Leopoldville: the chief station of the Congo Frese state on the apper Congro. It wat fimmaded lay henry M. stanley (Dec., 1881 ) on the left hank of the river, jut almee the first of the 235 miles of caturacts in the lower Congo, and near the outlet of the wille expansion of the river kunwnas Stankey Ponl (see map of A frica, ref. (i- B ) , Amout-thirty steambuats have been transpurted werland to low moldsille, where the sections were pat tugether :und the luale hanneheal on the: upper Congo with sonvo milns of maxigatle waters hefure them. Until the railway is completed to Stamley Pood Leorpoldville will continue ti, the the starting-pwint of the caravan trale to the coast, and is likely always ta be the wentern terminus of the steamboat servicio on the mper conso.
 strength]: an Athenian general of whose earlier life noth-
 all the Greek statess to recell thesi' citizens who hald heern exiled for politieal reasuns, sinveral of the states rosp in rebellion. Alexamder hasing dich shorly attor, al lespue waformed for the gurpme of Iriving the Maceltomians out uf Greece, and Leothenes was paym at the heal if the omefederate army. His carere wis short hut hrilliant. He rumed the Beotians, who sided with the Macemminus, that then defeated Antipater, the Macedunian general, and ,hut him up
in Lamia ( 323 r r. c.). Whil heorging this rity he was wombled tiv a tone thrown from the ramparto and died two days after, 32, b.е.
Leolychides. -tik'- (inl (ir. Aewuxions): a prince of the Enrypuntilic (Evpunavtioal), whe if the reining housens of Sparta. At the instigatinn of Clememes he compariel? against his hatel kimman the hing bomaratus, whene title tio legitimaty was diphted, and in t:1 B.e. bectane king in


 more becone masters of Theselys, but he wat hibal to return lame. and fearing comdemation wa traitor's hath he flewd to 'Tragen. where he died. He wass sureereded by his gramelom Arehidamus. I. li.s.sterereitt.
Leparto. Gult of alsm callow the finf of Corinth: an imlot of the Meditermanem; is milec hnyr and about $1 f$
 firpece. It terminates to the F., in the cinlf of Patras, com-
 mile wide. In this grulf was fought ( (O.t. I, 15:i) the criletratel bathe het weem low John of Autria, commanding the allied spanish. Venetian and papall flect, and Ali Pasha, commander of the Turkish fleed. From that battle may be Wated the derline of the Turkinh pawer in Eurnpe. See the
 tory of Philip II. of sipuin.

 with that and other bases ondistilling "inchnina with oxine of lead. Its sp. 日r. is 1002 builing-p int 26.4 ". The ixtmeric lase iriduline, formerly sulpured to be identical with lepitine is foum in the uil of coal-tire.
Lepidoden'drou [Monl. Lat,., Fiter,., scale-tree: (ir. $\lambda \in \pi$ is.
 trees, usidilly refermat to the Lygoppodievere. Their rentains are fomme in the lexmian rinks and thrmughot the 'arthmiferons, and are lelieved to have contritutal largely to the prometion of emal. The surface of their tronks is coverell with rhomboidat meshes, within whith are scale--haped spares, which are the scatry of fallen leates. Many of them wre of great size-40 to 80 feet high and 3 to 6 feet through. Remains of many gnecios are known, partly American, partMy European, and partly commun to minta continents. See Plaxts. Fossil. Revisell by G. k. (illbebt.
Lepidep'1era [Gr. $\lambda \in \pi i s$. $\lambda \in \pi$ ifos, scale $+\pi \tau \epsilon \rho d$, wing $]:$ a group or orler of insects (hee Extomolani) embrating tho hutterfliws and moths. The scimutific name of the aroup is in allusion to the fact that the wiugs ary mberen with minute ecales, which in reality ars dlattenell hairs. This, however, is a mint of secmudiry impurtaner, the Leridoptera being marked off from all of her insects by many other frathes. Thus the Lepidhotera mars, in their life-histury, through a comphete metumumphes, the thrw stages of grawh heing sharply marked off from asch other. From

 moth (exterat draymor
the eser there hatches ont a larsa (fremondy allow a caterpillar), which is seraciom, feeliner, in the differnt species. either on animal or veguathe mather. The larse have hating mouth-parts, the mamiline be ing eqpecially strongly de-

 prpation
 －小111 ：4．1 athely in－hotur ami 10 Hoc：atm whas of the In mathe in the tatherthes

 E1Pal from the lay that many
 O Apparent rat：int mathy It lat the［mpal shiil 115 butterly or motlo conto





























 bandy．Whan they man it in lig amether the buly，wh that




 Lraty ト





 marhel．witn haghay milowd wime onr num hambat
















 bethan，divefly trughty maned winge，the lather whan at rat being follded
 the fant that that andma or fordere temanate in a clab，a


Fown their mandar，then tranty．and the many interest－




 af mandmen，lavaria．In the frasil haves of the（rintare－ －hls of Xhatata neerar mimes which are attributed to the








 fribu．Repart of llandens surver，vol．x．（15i6）：lachard， Symonses of bomblecile，I＇roterdings Entomal．Soc．，Phila－


 sumber．Buttronies，their structure Chomes，and Life－

 werks．cmand the liats of haterature given in the principal antomalngial text－bouks．

J．S．К1м

 －
 inu the hamd of bammants．

 Wiot Ifricala a folme whith is much buthe known．Tho dif－ hornex betwern Pratoperns amblanduaresa are slight．las


 ：mal．：mid candal．The limbs amp has and slember，and jos－ …… bat a single serios of bones．＇The muth is armed with a fuw larew treth．and the fombrair－bladur seryes．at least 13 the Aritan fome as a lung． J．S．Kingeley．
Lepidaste idar［．3om，Lat．，Ditur．，belonging to the lepi－








 Lownat，and jut atwe the anal fin：the stomath is simple



 The stichom has many focoliatitios，anong which is the
 ather of the verthrat，which are comex in front and em－
 mis to the gemus hepidustows or rather lepisosfens，that twine thw ontimal netbugrathy of the wort．The species ate limm whitly in the waters of Korlurn Americe but

 In Chata．In the Te thaty remed the lamily was represented
 हи！い！．．
biviexd by W．S．dompan．
Sepodas：the bume of an anciont patrocian family of
 （an）member if Hu family was Darens dimilius Lepidus，
the trinmvir. It tha borakiner ont of the rivil war in f!









 loyal to the lation haser than Antenty limaselta when her ye










 this insignifieant rale unt il the year :36, in spitw of the fart that he hat born incluted in the renewal of the trimmsirato in the precediner vear. At thic lime he matas an eftate to
 ieal moment hy the suhlime um whom the hat hepumdend, ha was compelled to throw himatif upm the meroy of octavian. He was deprived of his parince hat was allowed tor wain his fortume and the ollice of pentilix maximac to whet he had been elected in the yoar 44 . Ile lied in $1: 3 \mathrm{~B} . \therefore$ at Circeii.


 plur. of - $\delta \delta \eta s$, descrmbed fromb: a fimily of rixlent mammals includiner the hames and mbhits: "haturtorized uxternally by long ears, long himd loges. short upturned tail. ronnded muzole, amb nostrils ronserang toward the median slit which divides the upher lipram has given rive to the

 two smaller incisurs lyiner bate of the two unally proment in rodents. The erimbere are wider than home and mearly all deeply groved on the innor inm chater sides. sume forly species ares recosrnizel, mont of them inhabitants of the worth temperate znme.

There is a remarkable difforemen in hathits butwern the hares and rabbita. The hares neverburrow, but simply rant pose a form or nest, in which ther rest and brine forth their young, which are born anored with hatr and with the wres open. 'The rathits. ont the contrary. baremw in the gronnt, and often make extensive tumbels, and in there harmon-they live and bring forth their lumats: the sumar are homsht into the wond naked imm bliml. Nowwithmamling such
 charaters, aml the dillument animals ara elomely dalad.
 stood.
lavixal by le. d. latas.
 tered in the herimmine of tho dith centary a monastury in the vicinity of Marseilles, and anduired a meat repmation for learning amd hodiness. H10 afterwaml foll into the heresy of lelarius, and maintaimed that man has mor mond




 adilressed to 户rocolus. Di-


 old C'hurch.

Leprat: sive Lapross.






 Cork there are lisually it fow anciso octurrins chatly anmaty


















 phandian of lhat frrint.














 alfecterl. oftar mathifest symphoms of the disedot at ath "anty are.


















 imburame of its nature.
(itumiz: llexter Fons.
Lapoims. Karl Rowarm. Ph. W.: phimhast: he at
 P. Lepoits (17,


























 いい! !
I. S. Kingisley.





 limin are bathke, there ate hat hare pairo of momhthats,








I. S. Kingoley.



 min prominn work are the Imarimy fann in the garden if the Jancmburer the Vietorg on the tomb of Xapheon, and the ligusus on the trant of the new opral have: he






 limeral party, he Was Comanforts Minister of Poreign Af-
 motit is Comerne. trungly upheling Juarez in his resist:nue th the Fremell invasion. When duarez was driven

 manime faithful "woll when the rimper of Maximitian ormed trimphathe amt the repmblican gusermment was Arisen orer the frontior into the 1 . S. In the subsequent adnane wheh monded in the downfall and death of Maximilian. Lath was me of the most aetise political hombers. In whi. after the rowerontion of Mexico, he was clected

 and ha- hooll coplital with many inpurtant measures of the . Iname adminismation. In lail howa a candidate for the promeney hut luate\% was re-bectent a the death of the
 previders if the Sureme Comrt, whith made him the con-
 rewably chand penident if the remblic for fur years.
 Emhatly hom supprot, ming this binfringements of the


















Hi, mine ll. Smoth.











 tury; at lyeemm, and serorial ather entucatimal instithtions:





 how a prison for military combiets and Algerines, abll lat

 rinat, is mamen from sit. Jonoratas. Arehhiwhop of drles.


 its intmortaner, amb is now in rums. 'There are somm shimber minhabited ishande in the vicinity.

 Prime Nanister of Spain immediately on the aceession of Philip Ill, in lsos, and governed the emphetill 16is, during which protion 1 he exhansted and dist rateted state of the country became more and mose apharent. Ilix formign folley wat matked by defeats, his internalloyeruelty and valeilation. In
 peace with Enorlatal in 1604 amd with the [nited lerosines

 thomsam Monrish families, fomming one of the rielowt am? most industrions .emements of the spanish fupmbation. Wern
 fiscated. In 1618 he was apmonterl carlinal, hat som after-
 against the falleg minister lecamer so stromer that an examjnation was malle of his alminist ration, and he wacconameltal to retmon a large sum of money to the treasury. 1). shotly after, in 162 s .
 Rassia, Oet. 8,1814 ; the son ol an obsonmenthere of senteh descent (Lemmont). He exnent his childhome wh the wate of his grandmother, ant in his eblerently vear mande his first journey to the ('incasus, the grami sernery of whinh luft an indelible impression un his mind. In lsiod he was edrt to school at Moscow, where he graw up plan, chum-y. shy, and addicted to bitiner pemartis that made him gratrally dis-
 rersity of Moscow for some stalent dismbers, ant went to St. Detersbure to propare for the army. Ihasmen larame known merely as the writer of elper lont indecent serse. for though he had alreaty eomponed seroral monertatht poems. he lept them sturlinasly seret. Only one bit thom, Madzhi 1 bret, was publishal, and that withoat the knowledge of the anthor, In tsisi, exeited by the circumataners attemling the doath of J'ushkin, he wrote at bowerful and rislent piece on the suligect. in punishment for whith ho was sent to serve in the ('ancatis. A few momthe later ha Wats reinstated in the suadra, alll now his pobutation inereased rapidly, as each now potm that her ratu enat wat hailed with increasine delieht hy the pablic. Ilis trinmpl. however, was sum cut shant by almol with the son of than Frencla ambiasidur and hintorian de barante. Fom thia he
 short risit to st. Potersharg hafore his death. Il waskillal









 was fiftern whon ho borma, and moly twaty when hu liniolud




 prolifie writer, amd he hat left hat ame purar wark, izlamas













 Hines.

 ervat extreme especially in the limato 'The
 mal crostacuans, but the fermales latra luat the
 vertal intomate organs wit ledine and repreduction. The month is convertor intu a surv-iner-tube which is inserted in the flow of finhes, from which they suld manco amd bomb. While



 tu tha hant retrongession sots in, matil in the


1. S. Kıni~Lbi.




 Siphomostomur. Thery are areimend to the sub-
 the thatax not juintem, the orgame very smatl. Tho malns ate totally maliko the famalem. All
 often mush more combletely oremated when rename than when matmere. In the lattor state
 and of sight. There are many diverse amd st ramge farms referied ta this intur, mont inf whieh would hever be revoraiぬel it comstaandms hot fur their larval fumms. 'They are
 mats. lievined ley fo. l. latos

 Lammothe: rocerival a first-chame nomal in thas


Chonlracanthus. a Ler. Hitan. Salon of 1s:


 Firk: In the (ineutry (tsal) in the laxembuntir (inllery, laris.
1.. 1. C.







 ing ill-natured. 'The iomple of Artemis (ruins it leartheots














   －atト      landate 11atio．14ta）：l＇rolughe（laris， <br>








 afyar that lery at thin tima was ath cotamed minister，



 ＂rom comedied and with the remamer he returned to


 fircheck the weromo of the Promatis．Later he lived at varime phaco in the and of Framer，and in $15: 2$ was set－ that at La e hatiti．In the mawace of St．Bartholemew
 waped taker refuge in sancerre．where the Protestants





 1．at arzean，hpartnemt of Mohthan．France，May X． 1668. At the ife of tomeren be was left an ophan，and the prop－ att of his father．who hat leat a well－todo notary，was appophiated hat two hes．his phatians．He was sent to








 （biser trant．Ji－marked nucters luan with the comedy





 a fiond with the actersof the Theitre Francais，and all his latur alpamat，weth was for the＇fheatre de lat Foire，for Whiols he wrata san number of fares and comic operas．
 Wh phapond mexd．in which the adombures are allied to
 1hat git．to it ficture of the like of all chasese it st riking patiom．This rialimm makes it an importath thate in the
















A．（i．（anfithb．











 is probalde that wme of the varlier part- of the Mlend wore actually composid furst in Eolic, and afterward reataptod.
 that may be it must now be regarded as proven lwomb dount that thome carlient produetions of the riapouliziner bards, which game the time impule to the develumant of

 lents in lonic, remamolimextrably fatenel in the epoc:
 the lestrie diatect are the abence of romern lumathine: the retraction of acrent ; the chanre of -avs, oovs final, ur matial


 etc.: the transfer of verls in - $\alpha \omega$. $-\varepsilon \omega$. $-v \omega$ to the $\mu$ - wris, it fenatus ; the change of digamma hefore rho to beta, a- Bpioja

 Greer Language.
fexd hae Wherifk.

## Lesbo'nax (in Gr. Aeqßüvag): a mative of Mitrlem, in

 Leshos, who lived in the time of fughthe: wrote a mather of orations in imitation of the Ittie oratore of whioh two have com down to ne anexhatation of the hthenian th fight the Thelans, and atheturimal exercise in the fom of 186s).

Revived by Alfied (ictamas.
 orig. retricted toname of a town on the i-land]. now Mytilini: the lavernet of the islands of the Eucan soa: inne belonging to Turker. Alter the Trogan war it theane the
 Mytilene, Methrmna, Antionit 'resu*, and Pyrhat promed a number ol philusiphers and puets distimenished through-
 icus, Arim, Thesphathes, Dhaniaw ferpander, and Erimna. The ithand is momatanoms, and in flaws bery fertile producing excellent olive nil. fire grape amp pine timber its wine, fanoms in antipuity. is now inferior. It chaff



 Itinerare aluf der lawel Leshos (listin, 1ath).
J. K. s. sterrett.
 explorer; b, at Vervins. Fratuee abmat 1ain; became a law yer: was ansociatol with de Jonte in the colnaizaltinn of Aeadia (Nova scotial in 1605, and was engamed with Pantrincourt in the settement of Port Lowal (mow Amajnili, until its abambument in 160\%, when he returnul th Frame

 donniers's falmaes in Florida, and of the anterprew with which he was permatly ronemeted, the first altamp at settlement having tran made on what is now lawn what on the cone of Mains. The dwerifion of the combtry and the accounts of the Indians are -piritot, and pranahy Gaithful. The volume attracted the attention of Hakluyt and
 waspubli-hed the same yare numer the tithe Nom fromens. or the Itserription wit thit Port wf Sene Froure uhther is the

 wiin the aldition of two smallor trathses, lou fomm raion


 is given theroin of the diapmone hatwen lenatrinmurt and the Jecnite in which Lacarbot siden with the formor. H1












II. 11





 the Gmazon- of Memmon, and the dath if A-hillw: (f)


 the Gerth of Troy lation חepors) by Aretimas) (fi) the va-

 and lastly the Teltyone (ly Lagammon).
I. R. S. stimpitt.







 Thery inhalit that montam of Hestern Thathestan, when tarli village is a fortress.




 whom lue wat math lishop uf kow: human hor diphi-
 was impliated in the fromet for her marrias to dhe bate





 11. afterward lised dheny in Frame, where in ante of 'mo
























































































 Kituryo...














 linveal by ll. A. Meers.












 in lonio. and int hai it was atain amd fimally dishanded.
 Friat. ame in init wan the diremory and combetur of the

 1: 1-4ti): Immentol. uratwrin (14.s): Bolil Dich Tucpin,


 ant hems, and ather chareh masic.
1). E. Ilervey

Laslie. 大ir duan: matural philosombur: h. at Largo, Fife-








 breities of that rity, after a viprome alposition hy the

 In the chair of Satural l'hilusophy, which he hedd through
 which eworrol Nov. 3 , bes. Ile early took high rank as
 Inquiry inte the Xature amil Iropatyotion of Pleat (1804)

 Iry and the highor mathematios. and from 1 nes to his death a smilar wrim m mataral fhalesulyy. ln 1810 he dis-

 vyloputhen bivitumbica.
 Fivi. Nouchatel, Swit\%











 swev-













entered public life as comsular atturlé at Lishom in 1－ぶ。
 Alexambria his robluct durine the mon ra，which carrien off we－thim of the pepmation，won for him the chase of
 and daring the bombardment of that fane his wise mene ures for the proteren of the foreign reatents chatimel fon
 made consul－remeral，amd received lolicitations and homat
 in 1804 by invitition of the viceroy，comeriver tha promet




 the neutrality of the eamal，he exceteal tha batility of The Times and part of the English press，which demanded that

Ble also promoted the comtruation of the Corinth＇anal． At the heirlat of his reputation and orfory hemertom the construct ion of the Pamamal＇anal．Believing himedf matare of public opinion，amb bet ter informed than whers，he hecidel upon insufliciont phan that the camal shomble be sathewh． The cost of surh a camal had been extmated at © but confiling in hisown grad fortume he requed the enti－
 pended，and but a tritling purtion of the work had been done when，in 1s8），the company waz diwinded．In Not．． 1892，the French Gowemment detominel to promente de Lessens and the other ollicials of the eompany on the charges of fradulent dealing amb bribery，esiecially of members of the legishature．A sentence of imprinomment was passed，but in the case of he lesens it was not carrind into effect．He was mate momber of the dealemy of ci－




Ilis charf publications are Mo Mission a Rome（184！）：
 Sowden；Irincipmer fiats do theistoire at Abyssinip：Let－ tres，journal et domments poup sorvia a Thistoire de Prethme de Siuez（10in－s］）．Which was arowned by the French Acadomy：Origines du Cond de Siue（18！0）：Sime
 Smith（London，189：3）．

Whlema R．Mutmax．
Lessing，Gomthod Epiram：whet and dramalist ：be all
 schule of Deissem，where he devond himself enpectally th the anciont handares and to mathematios，and wher hor

 endine to the wishes of his father，an orthome cherevinan． Though he increased his thenderial imbl phatorical knme edere，be thrned hisattention chiefly to the thester，and wom after the perdomane of his first＂amedy on the dabair
 attracted by the colturad atmondure that mommond tha
 had to the the druderery wirk of at pery yome jommatiot．In
 mans－vided kowledge of men and athars which are ammer



 tumed to Berlin in the following gear．remmine hic enempa tion as a joumalist and dita＂．Iquin he wememperal
 usual smems on the German tater After an momen at







 Bresken．While here，in the mill of the sum lempe war． Lessing wrote his Minnet men lammen，the first matinal
 velopment of the phot as whl as in requrd to the delineation of the characters and the hamelling of the dialegrae with it：







 whike lowtry rumento andins in time Fom and coln
 matm of repmomation in leatry．The afow of 1amer



 wright and antiotio dipectur of tho Hambmer fluater，and

 drama from the ancendency of fromh da－iwina，and gatr






 edy from a techaical pint of viow．hame a porfot prac tical example of the dramatio princifes which Jeming had


 anal pulitical ident of the time．Like Mass here simpsent ant Dimar rem Bumhen，it wat a drama of omdinary life such as had hem inf raduced in Englambly Lillo in his ${ }^{-1 / e r}$ chant of Landon（12：30）．With the puldication of the Wolf．
 gin of Chriatianty by 11 ．samuel leimarns，laseing arnused the wrath of the urthome clergy，and the rent of his life wa－ mare or less tilled with unflemant controwedes．Jaint he
 in the field of the dowy he wat to berome a pathtimber for future werations．Many of the primelas of the later erit











 mandern times the reformer in literature nhe if the fore





























 ! anmotir thom at the :







 and lised for - mo bar in retionemt in the coumtry. In













## 

Ledhlorider: tuwn of Smithern Alluerta, Camanla: on the





 alumal- in wild amimals abd fish.
N. W. 11.






















.J. I, i. Sterbett.













d. (i. ('sNFLELD).
















 de Memon lwain. His conlowiod works in si whumes




## Letters: See Palemoramis.

Letters of Credil: writen intimants romastine a person to sustain a detriment, wably top part with fond erty or to ineur an whiratime on the eredit of the writer
 cause it contained maly a promine he the witer to do an :n t and did not pheder hix eredit: ". I. P. Kicnen wata- a lith moner. If bou want any und on the bete. I will fix it when


 it. In either furm it is a merpoffer, so firr as the addrone is concerned, and the lattor by accepting the ofter molulder a contract to wheth the writer of the letter am? he are immediate parties. It follows that he is not affected hy any orluities between the writer and the hulder of the letter. Sh or


The law dows not require any mexibed form ter letters of credit, and their frumins bary greatly in fact. It is not-strange, therefore that conts waprimer liticulty in interpreting these intruments. Sometimes they remine the existence of a meifinl facta on the 1 remmance of proseribed acts as conditions of the writer's becoming lmumd to the addressee: whe whe writer aumes to amond drafts drawn uno him fiu the invice price of doerthed
 person drawing mast shaw that the frecifial facts exinted

 of credit takes the form of a rirmbar mote larsely usen ley trabelers, by which the writer repuests any hf his ampospontents in specified bace to bay mony to a manted pro son upon his complyine whth certain reguirements, ond an identitying himself. In many jurislictions me who pronises to accent a bill incma the liability of an amoptor of such bill. Under thic dintrine the writer of a letter of credit mar. by virtue of the lotter. Inomme a party to a hill of exchaige drawn in anowdance with its provinome
 itself is not a nequtialde inetrument. In ate the writer :anthorizes another fo draw apno at thint prom, ant the thim person refluses to inerppt a draft sultawn, the writer is liathe

 nia 300.) This liatility, howerer, is not that of a drawn if a bill, for the writer of the letter of eredit is nat antitlen to prompt notice of the rafual to arept. sue story on laills.
 s

Fhants M. burame.

## Letters of Marque: Sce Marote, Prisatefrista, and War.

## Letters Patent : Sep Patruts.

Letters Rogatory: a writ or instrument iswnel in the name and by the ant hority of a julac or comet to amothor in
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 at different phace in Grmany, and in 1air athed natmal science in Paris: in 1500 proceceded to the (ape of timal Hope, whence he made two jobmers to the interior of Africa, which he leseribed on his retura th laris in 10s. in
 I'ayuge (1893). These books were real with wrat interest and ran through several exlitions, though hey wetr much criticised by spontific anthorities. Uf anguentimable valum were his collections, sold partly in France partly in llalland, and his ornithologieal werks, Mistoire unturelle dis Oisecher d-1frique ( 6 was, 1 I!s-1812); Mestoire noturelle des Perroquets (e vols.. 1s01-(0.). D. at Sezame in Champagne, Nor, 29, 1s?4.
Levant, The [Levant is from Ital. Pemente, liter, rining, east, deriw. of lecere, rise. ('f. orimet, Iron latt, orimes, rising $)$ ]: the count ries hordering on the castern fart of the Mocliterranean-Asia Minor, Syria, and Egyt. The torm was brought into use in the early Mindle iges, when the Italian republics controllet the eommeree of Emeane.

Lev'ees [ = Fr.. liter., a raisium, deriv, of leter, lift, misel]: cmbankments on the marsin of a river to prevent immdation. Levees, embankments, flikes, dams, were unol he the ancients during the earlient histumal perials. Praliathly the first to ue thom ware the Eryptian in the Nite valey. The Arsutans and babymiams alos redamed ha this ineans portions of the valley of the buphates ind Tigris. The Chinee leveed their great rivers, the Yiane-tsekiang and the Ifway-ho. Exsy being a ranless cumbry, or nearly so, except near the sacon-t, the alluvial valle $y$ lamdo of the Nile could mot be coltivated withont irrigation. Duriur the flom season of the Nilo-the greatest lofitht being reached abont the time of the antmmal equinexWater is drawn off thrugh shiees in the lewes, that conreyed through mals to where it is nealent; it is thene rextained within leveed areas or hasine as lome as requivent Variations of a few feet in the ammal rise of the Nile arm therefore of the utmost improme to the Exeyntians. tion low innmations canse hearths or famines, and exeescive inumbations destruction of property. disuase and low of lifo. The Nile sestem is one of levecing and irrisation, but the irrigation inclules the inundation of the valley-lande theondiont, leaving dry only the mand on which the eitiee forms. and vilages are hailt, of the laveed areas from which the water is exaludet. Sear fairo the river luwn and fom 12 to 15 feet in hight, and hat very litho higher than the

 has camsed the grablual elevation of than lamh-atumal 1 in




 ton during low water in the river. Xatration is patibad for by momas of a lock at the end of tho harrique.

 hills and diths, which were herpen maly for wat of impat
 Dadras proviners alon", Capts smith informs us, there exit
 of repair-all of mation wimin. 1hw whatwo the laneth of the levees or embankments which fom thene reserveirs at 30,000 miles.

In Italy the levee system has iven in usp fumany om-turies-for rechamation as well as to finditato irriationuand the ohl lanian engimetrs ammoned some trutho wheh.



 or surfite at tho realt of the inceratel ghantity if water contined within the chammel beron-: that dorivation- on
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 em times in land redamation he monno of dike.. on laven is


 (1594) heing built for the parpue of shating ant the Sorth

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 ing of the Mississiph river was haran at New ormans in

 levee of $5 .+00$ fret in lengeth by + foet in huight and is feet widn at thr, as necessary to protect the city. lun 1:1i de la Tones mbervations shmen that the river flom-linte was: feat higher than the rimer-hank in the bend whow he located the promsed rity, athl he allowed for at levere a fome above the high-water line at that times little pharrow was


 low and extended nearly 1 ? male alnise New frlmate: and
 an the river. In 1si? Lomisiana was almited inta the Fend
 tinnous on "beth sites of the river from the lowera -attio




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 lon-water lime whinh ware known to he mew. All of these

 apartial tillins up and contraction of the river-chammel tulles it.

In raloulating the offecte of alding to the quantity of "arre in the Xi-iwiphi river by elosing oullets. or in jer-
 Irl- it will ant din foranme that the sectional area of

 the entantity water thowing. the mean vodocity of current.















 [r. rownimed and cultivated.




 risura, bayous, and and river lakes woald reguire abont 925 miles mor':.
In AM: the (insernment apmonten a mixed commission,
 +atios to lonk intin the ingrowement of the Mississippi rivertotworast, Imais amd Naw Orleans. The commission, fully matapal with fombe, made a thomagh amb meaty

 "Minti foraroptain the most impurtant factors in the great

















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 incidental but wery impatant efled of lhi- work apon the

 whole length of this trat paralled with the river, there wa
 whate whate of the rivar. Belure the ematrontion if the
 navigation. the principal one lying just helow the head or the
 at kow water of the river were boatod at intorvale along the front of the tract. The matigation of the rixer wan almay a very difticult umartahing, but sinee the comstracito of "the levee the chanmol hia er herally beed deapmad and maticat

The work on the low Mis-i willif has laten carried in on


 fertile soil as rich an any in the womb. Only atmot ond sisth of this area io moter cultation. There han bern ex-




 is now a contmona line of lescee on the can hank of the river Irmm Bemplis to near the mouth of the river. The west bank had in 1as? , he break in Lomisiana and antrab

 miles, as againet 4 miles in 1590.106 miles in 1081 and 589 miles in 158. . 'The flow of 184 ? canced damate to the

 the devees were of the standard dimenome thas withemen the fland of that yar. Whare the hreaksomernal they were generally weakend by crawtish, and were of inaley nate lamensions.
E. 3. C'motheil.

Levelers: the name of an ultratemocratie: political party in Fingand during the perion of the civil war. Jhasatisfied with the form of govermment establishal altor the trimple of the Parlimmonams. they chanored for a rupublife bawd on the abshlute erpality of all citizen- bafore the law. They wer a strang clement in the parlianentary atmy, and in 16t! broke ant into actual matins. Gut the movenent was - "pmoned with severity. Thronichout the tarlier years of the ('ummonwealth their viows wore antsaned in score of pelitial pamphato, of wheth the must

 From these pamplifto it apmears that in fulitical mathers
 ment. and demander the heveling of all rank- amo the imo partial alministration in the law; whine in roligions maters


Levels and Leveline: int rament- and antatime forde

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 atul was motel fur whan of eharity during the civil war.










 axib.) Lat wont intu Egegh with his fither and brohnore after the teration of fimeth, and died there. Danes



 f"ul): wis naturatizal in 1-ti: wan ame of the foumbers



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 (1). in lammon, Naty 9, 1mas

Latialhan from Het. limythö, wreathed monster,

 wrima atply it the the whete, the fathone dragon, and on her
 atibely for gigatio amimalh as well as other object-
b, wisation [fonn lat, It mgotion a =hmonhing, deris, of














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 -un?
deceased hushand left momalde insue. The firsturn son of the new marriage succedent the theased brathers name, property, and privileges. la Abssina and parts of Asia the levirate law is still in furce. it sums to have prevailad in ancient Italy also.

Levis, lä'ree', or lev'is (fommenty Pust Lavin): :n imur-
 the city, on the south bank if the st. Lawrmee (here a mile wile), and on the Grand Trunt hatway (an majo of ruebee, ref. 4-1). It has a larger hade tham any fown in Canada exerpt suefee amblontral. It is tho suat of a convent, and has a board of trade. The rwer is momed by a ferry. Top. (1851) 3:501.
Le'vitr: one of the tritue of Levi, a desmminit of Levi, one of the soms of facols, but in at more limiten spone one of those members of that tribe who dide mothemes to the priestly families of the anciont IIdrews. 'lize laveriter constituted a kind of inferion prienthoml. They hat now inheritance except certan eities on cithor sidn of the river Jordan : in which. howerer, they were not compellet to reside. 'lume are at the present day sme Jewish fanilies who elam a linchge, more or lese pare, from the hevitiod stuck.

Levil'icus [ = lat, = (ir. Aevïtáós, liter.. portainimg to


 and of the Oht Towtament. It contains the Manair law of sarrifices, the laws regarling cormonial undeamese, the laws with regard to intereourse betwem larachios and for-
 and the like. Ite direct Nusaie origin has manally feen taken for granted, but several reent berman, buted, and English commentatoms refer it to the perion of Liara.

## Mexateceil.

Levaka: a town of the Fiji inlamls: on the motheast end of the small islame of Cralan: lat. 1 is $41^{\prime}$ s... lem. is 51' E. It was the cargital of the arehipelaun bat lont this title in lest when the capital was tramsferred th susa on Viti Leva, thmag its almate is much more healthful than that of sura and it is more contrally placed. It is mus in decadence.
M. W. 11.

## Lev'ulose : See Sctiar.

Levy, láver, Macrice: civil engineer, member of the In-
 cated at the Polstechnic school and at the Eenle de Ponts
 in-chief in 1880. He was at first attached to the wrorks of Paris, altorward beame diructor of the navigation of the Marne, member of the commissim on the general lewls of France, amd Professor of Aprlied Mechanice at the Eacole Centrale and the College de lrance, and in lesiof Micanigut Celeste. In 18s:3 he was mecten a member of the Atale may in phace of liresse. We is an atheer of the la gion of Honmer. He has publinhet many memoirs in the fomphos formber on hydrauliss, hydrodenamies. elasticity, heat, cte 13is most
 aux constructions. Levy invonted in system of owerdiad (alate towage for camals. This methon, althugh urigimal with him, had been proposed in a crule form in lizo by a hatman on the Chesaprake and Ohio (anal ( $\mathrm{C} . \mathrm{S}$ ). Tha manhampany was without means to apmy the smewhat primitive inwer tion, and the matter was forgettent. W. li. Iletros.
Jewald, lácualt, Faxny: mowlist; h. at Könighorer Prussia, Mar, 34 , 1si1, af Jowish jarents, hut beeame in lier childhool a convert to (l)ristianity. Atter anmal yatrs of travel she began to write for the phblicabout 1sth, and from that time lived chiclly in Pholin. In is. 5 she marriod Adolf stahe the litarary critie, she wan al lanher in the
 opening to them of now tieds of emphament. It. in bres
 in which she hurlesquad the antimmention of the l'omptas

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 lish, and many others. she pmblinded a ketely whe tarlior years of her life in 1 sti, umber the fitle of ilf ime Lomergeschichte.
f: M. Thatis.
Lew-Chew: an archijnelago belonging tor dilath, sio Loo-cтиo.
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Nell Macbonald.

Iavis. Mamfiner: exphrer: be nemr Chatotesvilhe.
 z.n: woluntered in the Whishy lasurection of 1794: became an motin in the regular army tion, and captain in
 athel in 1ana-116 he, with Capt. Willam Clarke, was sent


 Nimpille. Trmm, M.t. N. 1so!. His memoir was writen by
 ratier of the batue and (larke dispudition (1814).

Lewis, Morgas: jurist amb mbler: b. in New lork city,

 - mation baw in the oftice of John lay : joined Wahingtons army at lamblidge in Jone, bios: Was mata captain of a

 iat lume liaf; was at the hathe of saratoga, and was dis-

 Su, on Aratial. Mfor the war has was indmitted to the bar in



 lature (N1N-11: quartermater-memeral, with the rank of

 tior in Apr. $1-1:$ and was in command of the defenses of Xiow fort aty in 1sh4. Sulberpontly he devod himself to Diterathre and agricultare: delivered an aldres before the anthritimon Kı.w York , ity on the antumary amiver-

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1-i : C Iorticul Lomimation of Motw iren if Brain


paratime Structure of Brain in loorlonfs (Transactions Ray
 metric leesurements (Tuke's Dechonery of l'syrh. ibedi-

 Sections of Braine and Sipinal C'ord folamonel of - Imatomy
 (fournal of Mental srience, 1sills: Therment rhonegos in

 Alentel Science); The Urigins of (rime" (The fortuiyhtly hevere, Sept., 15(13).
d. Мark linawix.
 tion of county, sop mat of Pemsybania, ref. 4-F') ; on the Susquehanna river, and the P'enm. and the lhila, and leating railways: fis miles N. of Harrinhurs. It chatains i churehes, 3 public schools, 2 hmons, is hothes, gas and clectrie, water, and fire services, and $: 3$ news bapers ; and mannfactures woolen momb, hasiery, nails, furniture, buats, bent sprines, foumdry gronducts, flour, and carriages. It is the seat of Buckneli ( niversity (mon-amtatian, urganized 1846), for both sexes, which in 1 sed had 0 profemors and jnstruct ors, 294 students, 20 sholarship of $\$ 1,000$ earch, sejentific apparatus valued at sis,000, grounds and builithere valued
 umes in library 12,000, a college lar yong men and yoump women, an acertemy for bors, an institute fir goung women, music and art schous, rymusinm, natural history museum. chemical and physual haboratories. and an onservatory with
 $3,248$.

Empon of " Chroxicle.
Lewishorer : town (incorporated in 1-se); capital of Grembriet co. W. Val (for lumation of comaty, see map, if West Virgima, ref. 10-11): 4 miles N. of the chesamake and
 Springs. It is on the site of the fort where the army of Gen. Lewis was stat ioned prexinu* to its battle with the Indians at Point Pleasant in 1ita, and has a stone chured
 lic high schoul. publice school for coherd youth, mal a welly newsaper. The industrics are arriculture, stock-raising, and manufacturing. P'al. (1850) 35: (1s90) $1,016$.

Lewisia: a plant of the Porthlact family, mamed [rom its discoverer, Capt. Meriwether dewis, who bund it in the mountains about the sources of the colambia river. It grows as far S as Arizona. The rowt is called rucine amire by the Canadian zogupers, and is used for fool by the oregon Indians, who call it spethem. It vichls much stateln.
Lewiston : city (haid ont 1ra, incorjorated 1795, made at city 1863) : Amlroscorgin to, Me. (fin location of comery. see map of Mane, ref. (b-B): on the Ambusentrin river, and the Grand Trunk and the Ne. Central railways ; ind miles N. of Portland. It derives exempional powior fur manufacturing from the river by means of a dam amp at distributing canal eonstructed at a cost of $\$ 1.000,000$. 'lhu* census returns of 1890 showed that 210 manutheturing establishments (representing 50 industries) reported. TVose
 paid $52,681,412$ for wages and 84 ro, $1: 1 /$ fur materialc. and had products valued at $\$ 9,060^{2}, 190$. The city is the soit uf Bates College (Free Baptist, organized as a seminary 1s.jt, changed to a college 1 le $6: 3$ ) for both sexes, which in 1 ster had 15 professors and instructurs, 234 stulents, 16,040 wolumes in library, 6 buildings 50 -acre campus, and s.300.0n0 in entuwments. There are national banks with combinm capitad of
 library, large public hall, public prk cuntaiming an shlfier
 21.201.

Ebitor of " Fhlame Jocrabl."
Lewistown: town ; capital of Fulton co., 111. (fior lowa tion of county, see map of Illineis, ref. S-1) ; on the (hii
 contains flour and sam mills, can-maling. 'atriat and wagon. duplex-scates, aml erener ficturios, $1 ;$,huretur, and




 of llarrisburg. It is in an digricultural region, ham a man-







Lewis-nith-harris: the larenct amd morthermmest of





 in the buthern part thare is a colomy of parely smali-
 is the only town on the inlam. Lamans of lmatical etrme-
 merly coverel the surface are met with. I

Lex Domicilii: See latersatmas lobsate Law.
Lex Fori [Lat., the law of the formin]: the baw of the phace or state where a romeds is sunght or an action instituted. See Isterxatooxal Private Law.
Lexicography: the art of making laxima, or Datmax




 times similarly used. and ditter mainly in dentee from the terms anwe. 'The first thre are unally limited to the words in a single volume or anthor sometimis th the mure dinlicult worts only: Thesurns and comneopion !ndnar to the class
 and cotholiem. An early latin-kinglinh dictimary was
 tionary of Elizalwe ham time was named the Nete World of Words. For a pulyght dietionary the fremoh we the term

 timanies in early times are abodurium, whatio. bedhere. ghossagmphice, guzophytrinm. thanary, all of which have Fone int of mas. Xearly aliced to the diethary is the comcortance, an alphatical list of wrols will referene to the
 mute is the eydoratia, an aphatetieal list of sabjects exphand and illostraterl.

The laxam, or hictimary, domblese miamated in the marginal glose explaining some dithoult gos-ares. There
 tur these compend at a mucla earlice date. I- sum works hecamo les limwn, explanathey reformon lawame more
 intermediate stop botwon the shos and the divtinnary is exemplitied by the inturlinare wering of arly times, pach wem of whe tex heing papainal has anhar wom written immediately below. Finally the "גjanathry ghases were gathered from warions texte and arraned more on hese sys tematically, on that they conda he weal winh all haws in the languag, whesed. The materate diationary of monern times has thas ben grabally evalved out of the margina explanation of a single word.
la the hivary of culture the diedinatry ordinarily lebenes to the bater purients of a matimis development for, as
 the early glows wold he limited in furinle in which ant Wher litmature amd an ohow valure wow sulied. or, in nther warls, to the eritical rather than to the creative age Fixeptionally, howerer an in limgana, the andeption of
 enase and the makine of the hilinginal erfor. In wo
 flomishod "rperially at such times an the fommina of the



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 raphy, mythane and arehanders.
The shaty of Gent harning at Ahembla "arly fou-
































 Pexptian ernmaniat of Thehen, orote what is probably
 prutal at laty, in 1-30.









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 in the tweth womars. The thatenth century is repre-






 and frian of Cicero. Wrate the Limyu Latime, hat this is rather a tration on "tymbery and heculiar nses of words thath a diationary in that strict collor. In the time of Augns-
 burum. This we have exept for a few fragments, only in
 af hathetized with mard to tha firet later, a common order
 Latill words, lat this has mot teen preserved. The eritome
 Italian hiverian of the dighth rentury. Shent the midde
 butheinn freme glase of the wisth and seventh conturiss.
 ron, or crumma, a lation didimary partly hased om labias,


 In Khalamb. Far wanple, tha Spimal amd Erfurt Gilosses
 of the cishth entury. (ilnsise or ghosed texts are also fre-
 ditinharios were compilad. Of these the Medulla (irammefies, an carly Enolish-Latin dictionary is worthy of spe-- ial motiot. It was written about the mitide of the bithenth (entury and un it was haved the ortux (Hortus) Jocabelornu...! diarlen of Hords, first printed by Wynky de Wirele in lion.

The next ancial ara in which lexiengraphy flourished was that of the licmaisame whet the staty of the ancient lamganas heman the widme of a mowed culture. We hate alredy mentioned the printing of many ancient Greek diationatios in the lat part of the fifteroth century. The fire frait of remek leviengraplat the revival of learning wan a dictimary compiled lay ratomi, an latian monk of liantha, This was primaid in 1-fis, and in it Greek words wore for the lim time exphaned by latitu words.
 athestumes in hoot. Anout the same time the polyghot
 momk, (enhpina, who lien in, 1.11. Calepincis work, pub-
 Iento :and therfory siaply bilinsuab. Later the Italian, Fromeh, aml panidh "quivalent- wore added, and in 1590

 of dietionamice among the Romanec mations, as wed as in


 Levion was prepared a few yars lato (15ias) hy Sir phomas











ed, but is now supplanted by varims dictionarim hased om the works of Geman scholars, as lidhlls (1)xturd. (x)at) aml
 stadied through Lation, and it is interesting to know that the first Greek-Finglish lexicon was phamm in Americon and partly executed by dohn Pickuring in istt. Ito publication. however, was delayed until 1sol;, what it wat antwaled hy
 seott Greek dictionary was mot puhlinhed until 185\%.

It was not until (irepk and Latin had hans bum subjeds of stndy that the modern peoples turned to thair ewn hanguares, the vulgar ton gas, as thoy were callend in the madiarval exatation of the chasses. The first signitionat phat for the use of a modern language in litemature was loantuc treatise Jo Tolguri Eluquio, in which he famors the use ly Italian writers of living Italian rather than dad latin. adrice which he was the firat to follow. Ahme a century later Bembo championed latian araint the elasaios. As a result of the efforts of Bembo and othere, the first Italian lexicons were written in the sixtenth century, the carliot of the language us a whole a locubulurio, by Amrisi in 1543. Others were published in the sixtenthe contury. J"inally the literary atademies which hat been fonaded fin studying the chasies tumbl their attention to the mothertongue. The most famons of these was the Academia 1 adla Crusea, a body of Italian purists, whase device wat the siew The great dietionary prepared under the anspies of this learned trody, the Tocubolurio Dellu c'mene waspullinhed in 1612, and gave an impulse to the study of the mandorn languages which ean not be overestimated. It was marsend in 1729-3s, and still remains of the highest impurtance for the language of Italy. In Spain the dictionaries of Letorixa (1492) and Cavarmbia (16] 1) precetpol that of the Acandemia España, 1206-35. In France the Thesor of Rancond (1564). edited by Nicot (1606), was the fommation of all French dictionaries up to that of the French dealemy. The latter was begun in 10:39, but not phblishal until 16:4. This has been frequently revised, the last sumpment apmaring in 1854. The first sreat dictionary of mulem German was
 Early Enylish dictionarics will he treated by themselves
With the new philolorimal activity, and the birth of the science of compatative philology in the last of the eight eenth century, hegan a new era fom the lexicographar. He was now to follow for the lirst time a careful philologial methori, and give up entirely the haphazan guessing of his predecessors in the fiedra of phondy and rymolyy. The new philology promuced in this century, outside of Eineramb, two masterpieces of leximoraphy by eminent shobars of Germany and France, the frimm brothersand Littré. The Deutsches $1 \mathrm{H}^{\text {toterbuch }}$ of Jacob and Wilhem Grimm was began upun a new and hitherto unattempted seale of completeness and thoroughness. It was to include cyery worl from Luther to Gethe with a history of its changes in form and meaning, these illustratel by quetations from the lit. erature of ali purimbs. The mulirtaking was so vast that neither of the brothers saw its completion, althourh before Jacob's death the work had reached the luttur the first volume wat issucd at Leipzig in 185t, and the dictinary has been continued under the direction of Wiagram. Hidesbrand, Heyne and Lexer. As evidence of the heroulean labors of the crimms, it is sail that the vast collortions left by the brothers were sulficient to complete the wiminal plan in all its essential features. 'lhe last (1s94) cmmphto whmm (to Schieft) was issued in 1893, the remaming volumes theing complete only in parts. The French dictinnary of hit tre has been rallen the best diedionary of any liviner lamguage. Its compilation is the work of some thirty years of his life, but, more fortumate than his ferman mailemanors, he lived to sce its completion and roonation by the nation. The dictimary was printed butwern 1 sis? and 1 sad. In methol Littré follows (irimm, givinge twander from ratasic. authors, the etymology of warls, ann) tho (Hasitiantion of meanings in the order of primitive Juriwn. and ticmatise significations. la all thome rexump lithres difionary while conforming to modern schandiph, difters fom thi dictionary of thr Freneh Acathemy. The lifter hats followed the custrim first establishat of inaking its own wamplas. and arrangine meaniners of wordson at logion rather than a
 cography, it wonld be impossible for commerate the die fienaries probluced thrine the nimenoth montury ondine to the phenomenal progress in phalohgical wiounc: of work i.w


 lemo (1st! ! the bath dietionary of de Vrimand t. Winhel

 the alder literature





 Was trow of other mandon lansuage, athl "an Whe to the

 rium I'wenhorum, "rithen Wy Galfridu- Cimmmations ahmat the midule of the fiftemth manturs, and firet priated in

 The sixternth matury sam man rane dictionarios of fine linh am! whe or mari forcien language. It is sail that
 tionarie for yonse haribines," hat there is no er ratim com of this till 1ast. This, tome was an armemont of writs
 grabe ththe of Mary, sister of Henry Vill. publishen at grammar "l Freded with an Enerlioh-Frereh suabalary.


 teenth century are a Mamipulus. Vornbulorum, an Engli-h


 tionary of English symony- with many Latin and -nhe Greek equivalents. Io an indiation of the -taly of mon-
 Fremeh. and Italian du tionarios of lemeivale, llallyhard, and Florio in the lat decabe of the sixteenth antury:

The first attemph lo explain Englind worle in the same languge is the Einglish Erpusitor of own loullak (1616) which was very f"lmar in jts time. In the nest your wa-
 Minnow, a work with whols fom ton differm tanenande illustrating and explaining linglish. Wher dietimarim of the sevententh century are he 1henry Comeran (1023) a

 women and lese learmel nam"; the Now Wortd of Wome (16.5n) hy Edward l'hillips, nophew of Milton. The bartient et mondural dietionary in the strict sense is the Etymologecon of Dr. Stephen shimer (16it), although some attemipts at etymbing hand hem mand in pereatine dictimation.



 monnely in 15s:!.

Tha eightenth century prondond sman very impurtant. many urimportant, lexingeraphical works. "he marlien of

 endithos before the end of the contury and it was recornized as the great siantard lefore that of dohnom. In 1-2i bailey fuhlinhed at mend whme with many mew words that made for the tirat time an attompt to shew ty

















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 Ine: :

 (mmprr, nser"

















I. "mon. Budur the mbitur-hip of I'ruf. W. I. Whitnes, of













The sthety of the uldent prind- of the mondron languages hav urimintert in varims ways. In bonshand this study herath in an antiguarian ant theologieal interest. The first Whatholioh lext Wia prineal lo show the le lief of the ant


 ward Lye jubli-hed his lictionariami Saxonico el Golhico Latimnm. A remewed interest in the staty of the older langhage buran in the nimeternth rentury, and n Diction-


 dictimarias have alsohere prepared by lí. Il. Jibler, (irein, amd leo in (iormans: Dicthomate of the mithlle period of
 ohndirs, a that lis simamam (last eqlition, 1sis), and by

 this is mow the mon survieatile edition. I © oncise Midale Enadesh Dimionary has allo heron prepared bs A. L. Mayhew and W. W. Skeat. With these maty be mentioned
 thr. Shelisperte Lercen of Alexamhere shmide (1854).
'lhe form and arrantemant of the dictiomary is of the
 ably in these resprots fromi thos of motern times. Some-

 oflor came th be uad. lat it was at first very improfect, the first levtre undy heing enu-idered. In the Greak dictimary of Tlenri liationne words wore arranged aceording 10 runts. This fhan was also used by (rerman stholas in the valy part withe nimbronth contury ; but it does not
 In sanskrit lexicons worls are nsmally armaged acoorting 10 the phometic relations of the letters. $1 t$ may be laid down as a fumdamemal principle of loxieagraphy that the triatos alphantif arrangoment is always best. Scareely
 syotematio hasis. Fiarly diedunaries are lacking in any systran in this repret. Johe Fronch deatomy, as did Johnsm. follows a hugioal hasis, wiving dime the present meanings of words. The new phiblow, however, has cmphasized
 bran lathownd in the dietiomaries of (immm, Littré, and in the Sen Eturlioh diothmary.
There hat: heen at erandial development also as to that
 "xampla, tha simplest explanation of words was alone given at firs. Fivmolagy was mext attemperl. Nevent signs

 lialf il chatary later. I liater ablitimu was the expression of "pinan by the lexiongrapher an to words. by the use of sueh Homs as rerpe whonle. hem, rellyer, lemons that are at best lan vory nampal and uf slight value. Dindern dietionaries
 lion ac they has surpmadi in the numher al worls inclutled.
 nital prams wad in nome whe departmant of thanerht or ate-








 - 1.
(hlyur l'akrak limerson.

Lexicon: See hatmaky amd hexmmaramy.



 and has a large tradn in horses amb livestork. It alan
 estimatenl. $1,5 \%$.





 85 miles.s. S. of Lonissille. If is the commereial and thath-
 pal market fire its three great prolucts. blomend hamse athi cattle, hemp, anl tubicem. The census returns of 1 sin




 whisky tohace hemp, stoses, flomr, hildinersuphies, camen regetables, suhthery, hamess. carriages and wimons. It is
 of Ifamilton Femate Colleme, siyre Female Instituto and st. Catharines A andemy (lioman (Githolio). It has llolly waterworks, gats and electric lights, electric street-rahways, 2 thalfmile racing-tracks, fullic library, $\boldsymbol{z}$ national banks with combined watal of $81,400,000,{ }^{2}$ state bank with capital of $8,913,900,2$ other hamks. and ? daily, 12 weekly, and 6



Lexinglon: town (settled in 16t?): Midmesux con., Mass. (for location of connty, see milu of llasichmeit1s, ref. 2-11) : on the Bost, and Me Railroml; 11 miles N. W. al Benam.
 farming. flairying, and market-gatidning. The trwn was settled under the name of Cimbridere Farms and protahly received its name from Lexingtom (laxington or laxtom), Nottinghamshire, Enghat, of which plame Francis Whitmore, an early settler, was it mitive. Nemorable ats the sput where the tirst bond was shal in the Revolutionary strughe this historic town possessemany momentros of that prion? A modest granite monment man the village greal talk its story of life sumpifed for printipho while a memorial-hall contains tablets and statues of John Itaneock man Gamuel Alame: of the minute-man of latand the soldior of 1 N(il.


Battle of Lexington- - in the evening of Apr. 1s, $12 \pi$. the british gencral (rage dispateluel a fore of som manamer
 the militery stores there enllected, and in ant in ination had
 of the intembed expedition from prombur. 'The aphum of
 was also contemplated. The tiret momment of the lipitialo
 and Piul licrele, rowins arms to the Chartontown lowe.
 househoh as he went; Hue belle of the villawe choreme rane
 given warning far and wide. Ry minath limate hat ar-




 when the British major l'icailm, with six cmpmion who
 a mile on two of Laxiurton. A yoneral alarm was now




 a volley had hem tired wer their hatala without ofted. they

 ance womd result in the cemtan deatrenton of his turn, we dered them to "lisperse, which they dill. som dise hatrimer




















 rexien in the state, atha of the hemprowint enetion: an a bhat semtere alwe the rixed. It has mamifatmon and a Jarge river "mmerec, and contans Wentworls hilitary
 Elizaladh Lall Famala sominary, tate hank with can-


 which haturally stantr pmition was fortitiol and heta
 Aterling l'rice, the singe teminating on the emb in the







 $4.3 \%$






 Water-puwer. a fomalry, flom-millo. publi libary, 1 wo state





























 hlinisthe Mdifin, of whith $l_{1, ~}$ i- will :n an an ention.





 Witnab

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 Whore in abridne




















 Theve are ner lis. II, in lomas.
IV. I. Srimas.














































 tho eraml madato of hator. 'loy the Expmition of tefo he -1-16 he wat dererated with the order of lablum: in 18.51
 mander of the onder, and pronated to the dignity of oficer in the Lapion of thame. He hat atreaty bren created a
 A"alemy of tholgm.

Revismd by Resemin. Sterats.
Leyle: onn of the laterer of the Platiphine islands, of the



 - luak Viratya.
11. 11.11 .
 frimeipailly of fromeh fuasant life: h, at Mont-saint-lere,




 rapornation of pasant whater is trublaf and whole-
 cmburg diallery. laris: The l'intupe (lssel) in the Metrow litan Manm, Xew Sork. Stulio in l'aris. W. A. C.



 of latio (1530): was sent to the (comed of Trent, then just

 on thr death wf Divier the sucereded him as chancellor of
 (har kinghon, and by wis moderation thed to allay the

 athl at he mating of the states-foneral at Et.-Germath, jut hefore he matherals of the lhagmot wars, he nserted
 Hn - piril of the ater. "Mang." :alit he, " may he citizens, Whe ure not "an 'hristians:" 1he fell it pres io the emmity it the Gaivo. and relind from oflice in bos. Ile esaped thanamen of st. Barthbmews night. and died Mar. 15,



A. (i. ('anfletit).

## Lindility of Employers: Se Mastar amb Simpast and

## R:LAMES:






Liahbof lalands (from the Ramian merehant lam Lia-

 the . Dretio Wean, aff the month of the Vana, The harger

 mile in hoth amd 1.5 miln in hembth. 'they are rocky,


 and uhare ix dind andmat.
M. W". HakHMatos.






long to many diffrent fanilies. some are wf very groat size, and uften kill the trees round which they chme.

## Lian-thag : See Sming-kivg.

Li'as [from Fr. lees, barliar liais, sont of had himetnone

 in its lower protion thin hedded limestonnes altomate with mart. In both (inmany and England the Litu has yiednad

 beautifully preserven; and a host of mollusea. forals wome not sutabindantly reproment. It gives us the mas emmflete remesmation yon fonnd of any extimet fanma The Englinh hias indudes an importani sonre of inom, the Cleveland ironstone, an argilhateons arlmate of iroh. yidhing on an arorage abont ${ }^{0} 0$ per ewnt. of irom. It extends over a distriet of some hundreds of sumare miles. in a stratum, generally oülitic in structure, and 16 foet in thickness.
Liba'nius: rheturiman: b. at Antion in : 14 : prolmbly
 at Athens, but arpuired his education principally he private study of the old Greek writers. whom be often mitated with suceess, and for whom he always shwed great enthusiasm. He first set up a private schoid of rhetoric at (constantinople, and became so popular that the schonts of the officiad teachers were desertent and in their jealoms these teachers charged him with healine in magie, and suceseded in qetting him expelled from the eity about Buld. He went to Nicomedia, where he banght with equal suecess, but when recalled to Constantimple at the end af tive years he was rather coully received, and. peremated ly the initrigues of his rivals and harassed by donestic troubles and iff-health. he gave up teaching and lived in retirement in his motive city libanius was a thorough Greek, and had no ermbatly with Roman life and a seant knowledge of tho latin liniquage Jlis indol was fireck style, and for his. time he hat bare sum cess in mastring the ore rets of Greek "xpresim. A pagan born and bred, fur was an ardent anmirer of the Enfuro Julian; but his devotion to the Amstate did mot prevent him from associating on terms of affectionate intimace with St. Chrysostom and st. Basil: for he was ahowe all a rhetorician, and his tolerant attitule toward 'hristianity, so lar as it did not interfere with the study of the (ireok classijes and the attainment of excllence in Crew emmonition, may be explained by hif hallow cleverness as woll as hy his easy temper. Ilis orations, derlamations. 'to.. have been jouti-
 which are of great value firs the lintory of than perind, lis I. C. Wolf (Ansterdam, 1638). There exint, hewerer, atil many letters hy lim, in manuserjot and mpunlished. at Madrid, Veniee and other phaces. See (1, R. Sievers, Dus Leben des Libenius (Berlin, 1siss).

Revised by lı. L. (immbeleeve.
Liba'tion [from Lat. libution, deriv, uf lhat re, tasta, sip. pour out as an oftring to a divinity: ©ir. Reißelv, make al libation ]: among the Lhmans, a drink-sifering saterifised to the gods or ter the spirits of the deal, by puring a fortion of the draught upon the altar or the gromat, pither ats a separate act of worship or in commetion with other sarrificial rites. The libation was most commonly of wine, ammixed with water; but it might aloen consisit of homery or milk, as the oceasion or ritual demanded. The timeks


Li'hant: town; in the government of fontand, Jinciat: on the Battie, 146 miles W. less of Rica (spe map of lanesia. ref. 6-B). It has a considerable shiphallinge internt ame large 1 rade in timber and conn. Its harthis freezes later than other harbors of the Baltice, and is eardier fee of iete (See llarborn.) Pop: i9, 0 ,
Libed [from Lat. libe hus, little lask, gamphat. lampoon. dimin. of liber. bexk]: in civil law, the dojumation of the first pleading in in iction. The term was :nlented by ecelesiasticad conrts. and is still retained in divemen suits in some of the U . S. Its most frequent un in Enelinh-spanking countrics is in anmiralty promedinat. Thic phanding corresponds the the baratios (y. if) in mmmen-law
 inge.
Libel and shander: in law, these matanmes which pros duce a leqad injury to the remations of andhur. If the defamatory utterance consists in spech, either vomal ar
mamal (as in that ratu of mation) it is called stander. If












 jury to the roputation of the one asatilet. smme of the rulios for determining whon a legal injury of this nature












 tion be ationalle it mus came special lamame 10 its vichim, or it mut la uf such a whaterer hat the haw pro sumes. withont prof. Hat its victins: reputation hac luen imparm. 'This presmotion exits in the following anes:
 moral turpitude or lialifity to infanmas puniviment, It os
 farse, fmistrable by imprimment. The minm nod not he
 Antrime. Some ramire the wats to chare a minn involving disgrace: ithers, therere an indictalle rime pminhable comprally, and still uthero to chage a criminal
 ishmont. The weight of jublibial derision supperts the rule

 isn. Lout impramment at hard halur in the state frime or


 orest att. lant morely a phaning 10 and and the intontion to eommit in rime is not it wiminal offerse: althoneh the
 Mantim"s character. (Q) Where the words impote the the Maintifl, at the time they aro sukno the farmonon of a contarion-disean", which whal hathrally wxtmbe him from




 the dutios of his oflice or callinis. It mant lie shown that they were suken of him in relation thereta, and th his









 In him : want of ability ur hementyntiting him fim the














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 1-11!












 of fart in the liwh of all the eirolumataco. It hav lawn saind hat " Hhere are ow work an phan that they may mot hat


















 Wat





























 funt The jure wor thlit that if the etatement was made D. Whe parpare if attacking the reputation of the faintiff "1 wa matichan and anthathe.
 on a prisulesed waston dithere tom fair combuent in that there is he hate or fander in the hather canc. white in the




 - buthe wamplan trom liability tornit in there cases is consin-
 bin it asemed in binghat ly the bill uf rights, and in the




 then. "lhe Finghin comes wated the same exemption to
 ramar. Thay ludiow that public puliey repuires that not
 fing lacir fats in a come of gastice with that minds manthoned lys far far of an ation for defamation or a proseantol tor litul. Wthongh some ewores in the ['. S. adopt Hav rule. the mabirity hoht that in the case of parties. comall aml withrow their defamatory statements mast be pertithent and mattrial to the cast, or most be mate in grom fath and without actual malice: in short, that a judicial franerdiner is an orravion tuthem if gualiticel privilege only.

Ohn" eanco of qualifid privilege are whon one makes a Affanatery tatement in the preftimance of a kegal or sociat



 the linety of thi prese cemsints only in the right to publisit "withut any previne lionse, sulyect to the consequeners uf the law." ${ }^{\text {in }}$ "an of abuse. Whether a mport of pmblic prectodina is fair or whether a statement is made in self-
 the wht - bat the bave hern greaty troblded in determining
 huts. which will pander a defamatioy stabement combionally privilasel. Wh the whe hame is the comsidemation that it its limits are dow marow proms will be detered from Wamine thoir follows atrainat raseals. On the ather hand is the fear that extomber tha thandaries unduly will enable
 of the pertmonate of duty. The linglinh ewurts seem dis-






 whether eisit or wimmat. If the makio of a defamatory tatement has an interon the subint-mater and the re-

 pans. ©r-uhate a repre among the stockholders rellecting
 is: phothat of haw. If it i- monditiomaly privileget, the



 thant ley it is that the chatre is male without just canse

 ath. If the tatumont in combitumatly privicimel, however, the phatill is lwand to suw that it was made with aro that malier. Whelher anch malier act hater the derendant


lowing may be applate ：＂If a man is prosial ta habe statel what lee knew to be lake，on one innolime furtare ；＂Pery－


 ant has stated sumethine as the withut knomine of intuir－
 of his anerar of ather motive，whether it is 1 rum＂r mat．the

 maliefomsly．

Justification．－The Rufembant．in a civil andim lan duefat mation，who alleges aml proses the truth uf his satoment． is entit hell to a verdict，thomesh he published the wharge with express maliee．Sum a charge dons not invalle the＂flatim－ tift＇s merht of feputatiom，thangh it may show that he hat been onjoying a moutation that he dia not deveras．He hat
 is that＂very defamatory statement is false．＇Ther bumber is therefore upm the defendant to allege amd prove the twoth of his partioular elourge，and the exarts entored this rule with great vigor．In the ohler coses there is some anthomity for the riew that the defendant could justify by showing that hes simply remated the statement of amother．giving at the time the name of the anthor and acting in qual finth． Those thedions sem to have promeded on the theory that actual matier was neressary to actmmate dafanatim，and have long beco wemmbe．The anthor of a defamitury statement is not liable for its repetition，unless he atetually
 the eharge is the forimate canse of the damare which the statement thas repeated produces．If the statemblt is mate to one who is kmown to the anthor to he umber a lograt， ollimala or social daty tor rapeat it，and thar areasion of its repetition is thas jrivilegel，the author will the liahle．

Defamation as a Crime．－Nlthmigh evary libel that is actionablet a tort is also a mishemeanor at common land some kinds of defamation are pmishable criminally which will mot sustain a civil ateton fur want of a proper phatotitl． Such are blasphemons，obscene，or seditions worls，calum－ nies on a connt of justice，litsels on the lparl，and those which temi to excite the hatred of the prople agamst an sut or class hat not aganst partienlar imbivinals．＇The lirst two chases are dealt with as crimes，becanse they tumb to cormpt jublio morals or endanger the institutinis of the state；the others heanse they combuce to a bread of the
 unknown in the［T．S．，and the sisctrine of seandatum mraj－

 realm＂womb sustain civil and eriminal ponerotines，at
 monert，has mever been andogted in the $\mathbb{L}^{\top}$ ．S．Thes dextrime is practiablly obsubete in England，no action having hoon



Defamation of a deceased person is not atentabla divilly． for it does not assall the seppotation of any une who ean abet

 expreszed a choubt whether such lefanaltion constitnome a
 althonerh it has leren mulerstomed that if the pabheation was
 tives，amb thas tended to a breach of the prate it was in dietable．sium is the statatory rale in many of the $\mathrm{L}^{+}$．
 action for themation，whether the momembine is rivil of






 suit，［ar indury to the ramatation of the plantime is the




 commmacation of it by tha utterer to his wite in mot，low the communication is privilegenl．

If a person，intading to semi an inmoent wriling to an－







 respet to the esocure of a（oriminal）linel whather（har mat－



 libel．＂The common－law rahn han latels changot buth in





 ＂onat of himes lanch that＂an the trial of an indiotment for a libed the only puations for the fury are the fart of publication and the trath of the immembers．＇flow ghertion of libel or no libel is neremonily a pucalion of law．＂dun tice Willes dissented，holdinge that while the jury would ro－ c口⿰亻⿱丶⿻工二又⿴囗十 thtional right to examine the immornat wr piminality of the writing．amb，though they fomm！the follitation and the inmmendoes were proved．they might will give atomeral

 was declaved hy Jox＂s act to ho the law of limslatul．－tal－ ntesor comstitational provisims of like temer are limme in the L．A．In tle fomer comatry lan fumatons of the comat and jury are the sume in rivil jumemaling at in oriminal poncedings for a libed．The emme may manat the pain－ tiff in a civil action or mats direat tha jurs forapuit in a criminal prosecotion，if satidiod that tha phllinatime is man

 or mo libe momst still be sumbited trit the jury．Whother the

 apitinst evilence．and a new trial anderml．（riopital fomm－












































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 iner form: lat informans anch privider is no defone when it can be beried that the berom makine the injurions statemont knes it tu he talo. Decision of the eriminal count of

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## Liber: See Bast.

 las styla on that of the clder londini. lhe was a diotingraisher paintor of religiosus mbigeres, and atow illominatod
 Siomit. He Worked diligently all his lifto, and died at Veronat in $15: 6$.

 (ifeat britain which, in "plosition th the (onservatibes,

diberal-Cmionists: members of a palitical party in

 Home linle. Ender the lembrahip at the Manmic of Jantington, afterwaml the Jonke uf luvonshima and Xr. Joseph ('lianberlain, one of the members for bimineram, ther allied themselves with the ('maservatives on the lrinh 'fuestion in that year, and secured the doforat of Nr. (idadstome. With the aid of this alliance the Comservative remained in pater
 help of the lrish members who fivomed llome Jinle. sidured votes arough in the llamse of ('ommans to defeat the Conservatives und Liberal-['monists by a majority of : il.

Liberia [from lat. hber. free]: atephble wh the west-
 ing from the river sam Pentro on the S. R. Luthe river Gillhinas on the X. W., a dianame of $\mathbf{6}(10)$ or (ill miles.

Topugraphy.-The coast-line, like that ul most of Afrioa.
 months. The territarial area, whoh has bern stmaly incratsed by purchases from hative trilnse is estimated at from
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 swelling intoforst-cosered hillsand lofty monntain momes. trabersed by fine valleys. Fur ?00 miles or mote it ermataally rises towam the Kome Momatans, the heddewaters ul ita rivers, and to a still maletermined bmandary fowam the in-
 is mavisable for more than 20 miles from the month; the most impurtant are the st. l'anl, maviable for 18 miles, and having f feet of water at low tithe on the har at its manth, the S't. John, the Jank, and the (ape Mount river. F'ine oysters aboumal at sume points, and sume of the rivers are notathe for their tine seamery, especially the Cavallon river, Which efgals the IJudson in itn beatuty amidgrambour.
('limate. -The chmate is thamoghy tropical. (If the twa seasoms the dry lasts fromblobore todinta, amed the wet from Iune to Getober. In the dry seanon the average hat in 4 t F. the mereury seldom rising above 90 in the shata: in the wet sason the aberage hat is $\% 6$, the meremer merom falling below 60 . Büttikofur, whon sumt five years in liberia, found the highest tempurature to be unin the artan pains, where in 18st, in Febmary, the tropical smmmer. the mereury marked 113 f . $\mathrm{T}^{\prime}$ 's the white man the elimate of the lower regions is aleally, lut from its excmabe lomat, Int probably from mianmata; amb exan the Neeros, whom bormand reared in another elimate. sutfers, an his arrival. from the so-called dirioan ferar. 'The mativer. wh the come trary, are healthy, robunt, amblomer-lime

Soil and Protuctions.-Whe suil is watmally very fertilas and, in the more elewated rexions fatiendarly. wipahla of produciner many of the jrondats of the temperate zonas. The principal faming dintriets lie ahmar the valley of the

 nous, and yiells two crops ammally ("ulfex dif "xcellent
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 shrubs, and varioties of watul palms. alomory whats is the nut-hearing jahn from which palm oil is mathe. l'alan oil is a very important prombot, and is mat in freat yuathtitias to Engímd and Germany. 'Pohaceos, one of the mus ralu-














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such prersons is nof aforal to that of some othors, althumerh
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' ${ }^{4}$. S. Winllsem.
Liberty : city ; capital of Clay co. Mo. (for lomation of county, see maj, of llissouri. ref. $; 3-\mathrm{D}$ ) ; wh the ITan, am? St. J. and the ('hi., Mil. and St. P. ralways: 4 miles N. of the Nissumi river, lt miles N. W. of Kanses ('ity. it is in an agricultural and stock-raisingremion; containefoburches,
 (non-sectarian), 2 flomr-mills, a distillery, and 3 weelify newspapers. Pop. (1880) 1,466 ; (1400) 2, 2505.

Fioltor or" ldvinte."
Liberty, Via. See Bedford City, Va.
Liberty, Religions: abolute freedom of mivious opinion and worship, the edrality of ath churehes, religions amo ciations, or persons in the way of protection or rotraint by the legally expressed will of the nation. The distinetion is quite clear and breal between what is civil and what is religious. ('ivil govemment is not to support on himer any form of religion. Privileqes are not to be granted mor ate injuries to the inflieted beense of religions bellicf. A state is manifestly unable to exereise minute sunvicion wer religions opinims. The state can mot wo behiml the owert act. Religion looks to the posture of the mind and the heart. Men are bumb to submit their juldement on puints of filth to no visible body. Tuleration is the is sumption of the rioht by rivil process to matrol religinus affairs. Thberation ex ei termini implies that the state prefers ane or more forms of beliof. but gracionsly allows others. 'To permit inplies the right to mevent.

The Now Testament contains no precept faboring a national or state relionn, or interference by gormment with the right of worship. It recosuizes a clear distinetion letween "the things which are ciod's" and "the thingw which are Casar's." Disciples of ("hrist were such not ly compulsion, but by free (hoice. 'The kinghom sot up) was not of this world, acknowlergel no tempural heal, askel no help from, nor alliance with. civil power. Catil the thind century Christianity hal the hostility of govemments. is state religion, under pagan wovernments, subjected the early Christians to severe bersecutions. L'nfortunatels, Constantine in 313 established (hrist ianity by law, and since that time 'haristians, when they hase obtanal power, have allied their religion with evil athorities. When the Roman Catholic Chureh was established and became strma, the governments of Furope were not so much in alliance with, as in subjection to, the ecclesiastical power. When, as the result of the Reformation, several states in Eurow rmonnced the anthority of the polne, Protestant kings and gowemments, as a substitute tir piand dominion, a-wmel th themselves anthority orer religiom, In some instanes, when the popes anthority ceased in the realm, mach of the anthority exercised by him was claned ly subreigns, who berame the heals of the Chureh in their respative dmanions. ("ivil governments in Europe universilly clamed and "xpreme the right of legislating ywn andesiatimal and wiritual
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 fommad in Philanlelphia a library company，still in axist ance，which was the liast subseription or proprotary library of whin there is any roword．The lithary uf＂ongresin－ar， as it was called in its first reneral catalogue，the liburary uf the U．S．－Was fommded in $\mathbf{1}$ son on the establishment of the seat of govermment at Washinston．＇lhe（apital and li－ brary having bean bumed in 1814 by the britinh army， Coniress phrehasen wx－President Jefferson＇s collection of 7,000 volumbe as the hasis of a new library，whinh was
 Volumes，and was again nearly consumed ly fire，nuly 21，－ 000 volumes buing satrul．＇The colhoction now nambers over $\mathbf{T 3 5} 5,000$ books，besiles 235000 pamphlets．The valu－ able seientific library of the cinthronian lnstitution was incorporated with the collection in 1sitis．＂lhe libarary of
 and books relating to America．while no other demartment of letters hate been nealectect in its formation．It is the only library in the C ． 3 ．recesiving the benefit of the copy－ right law，through which it will in time come to pussusa an approximately comple representation of the antire fromb－ uct of the press of the U ． S ．＇lote preservation in a nat tional fireproof repusitory of all the national literature，with a selection of tha best literature of all rother combtrins，is a
boon whicla will be mond and more apreciated by sohulars with the advameing development of the comatry．Next to the Jibrary of Congres in numeriual extent stamls the Jub－ lie Library of boston，fommded in 1848 and now numbering over 600 ono wolumes，circulating through mumaroms bramelt es or subsidiary librarise in the suburbs of that wity．This is one of the most witlely nsefal collections of buok in Amer－ ica，lemding its volmmes free of charge to all vitizuns．Its example has heen widnly followed in uther citius and towns． Cinciunatí and Chicaro，for instance，have each rapidly in－ creasing free－lembing libraries，sumporth．like that of Bus－ ton，by fumls derived from municipal taxation．

The schooberistrict library system，origimated by Now York in $183 s$ ．has been adonted by many uther statea，tha books collected being paid for by a proportion of the sothome taxation fumd of the respective States．The State libraries of the conntry are many of them collentions of comsiderable extent and value．＇lhat of New lork at Albany is the largest，numbering 190.000 volumes，and furnishing in mondel of a well－stored and liberally managed public lihrary，free to all．In the other states，and in all of the Torritarios，li－ braries have been gathered at the seat of enormmont．fumbi－ rily for lexishative uses，mal consist chiefly of dexmments，all of which aro open to public use and reforencer．
$A$ elass of sulseripetion libraries whidy have had mumh suceess in the U．S．are the mereantile libraries，of which those of New York and Boston were fommdel in 1＊？，tho Philadelphia Mercantile in $18 ? 1$ ，the（＇incinnati in 14）it，and the Sin francisen in 1si．3．Of profenimall librains，law． medieal，theolorioul．ant scientific．there are manly．＂In＂o largest medieal collection in the L．．$\therefore$ ．is tho liforary ul the surgeon－menteral＇s oflice at Wiashington．mumbering 110 onn volumes；next to which stamds the lihrary of the Coblare of
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Library Administration：the errangement and man－

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buok-room $60 \times 80$ fuet, and shan he left for commeniont wes by realers admitted to the shelves. When a library grows beyond this size it will hatually be divibul into depart ments occurying sprarate floors, eath provided with readingroom and of har facilities.
11. Clussifivation of the Bumks.-The rhasification of books is a mater reduiring much attention from the libratrians. Even in a circulating library it is meded to facilitate the finding of broks tor aphicants, but it is aspectally usiful in reference libraries or where reaters gen to the sheles naturally wishing to find the books in a given sulbuet tor gethro. Classification is to many a tamination athly, and varions elaborate sommes have been workel not whid are widely adopted. Chief anmog these mow in use are the Dewey decimal and the Cutter expansive systms. by the Dewey system the library is divided into ten suctions-l'lijlosomy Theology, Sodiology, Philuhgy, Sidener, Wheful Arts, Fine Arts, Literature, llistory, and (remorad (encyclopartie and biblographical). Each of these is mparated into ten divisions and these again on the same decimal phan: thas number 954 means simply the forth subdivision (New England) in the seventh division (North America) of the minth section (IIstory). In the later editions of this ardeme it is wry thoroughly worked ont and enpionsly indixal. and presents many clams for acceptanee. The chief objection to it is found in the "Procrustean" natme of this rather arbitrary method of division. The conter systim reeognizes the need of a more elastic selieme, and proviles. by a somewhat intricate combination of letters with firrures as symbols of notation, for a division at any point into any desired mumber of subilivisions. The system takes its name of "expansive" from the fact that it is presented in strven forms jrocerding from the simplest to tha most complex. A small library may be arranged by the first form of the scheme, and as it increases there may lee applied to it the additional features of the more complicated forms, one after the other, without materially changing any of the bookdesignations alrealy used. Both of these systims, and others which have had wide acceptance, are ingeninus and elabomate. being carefully constructed on the hasis of adivision and subdivision of the field of knowledge. As was loner ago pointed out by Edward Edwards in his Memeirs of Libraties, these schemes are better adapted to the arrangement of titles in a catalugue than to that of polumes on the shelves. The reason why no fine seheme of classilication can ever be rixidly applied to books is that som man of the best books are comipusite in their nature and can not be broken up to lit the classification. The great argment for elaborate classification is that it will exhibit in a gism !lace all the resumes of the library on a certain subject. Just so firr as the classification is depended on to do this it will he mishading. and tend to limit and dwarf ones reading. For examble. if there is in the political ceonomy section a class "Taxation," one may find perhaps two or three hooks arranged under that subdivision; whes in orter to find the best material the libuary has on the subject he should be refermen to the general works on political economy and to many papros in the publications of societies, in the prionlicals, ets. In the natural sciances the sme thing is more strikingly truc, as in many eases moth more on a siven suljeet can lne fommed in transactions and periolicals than in separate books.

If it is thus understom that the dawibation can met 1,0 made to serve the murpose of guiding the reader th the material he needs, the reasm for dovoting panstaking atantion and large expense to its elaburation falls to the gramal. One-fourth of the effort sumetimes expenderl in this minuction is ample to provide for a simple and pant tual arrancoment of the books, the man degrombere for fimbing buks being placel, as it must always be on the matogue. An etfertive clasification for a small litrary, say up to 10 ours or 15.000 volumes may he make be eeparatiner the looks into about ten or twolve classes as: (el) Fiction, (b) Juspniles. (c) Poetry. (d) Miscollaneons Lherature, (e) History ( $f$ ) Trasels, ( $g$ ) Bingraphs, ( $h$ ) Xatural Scipmore, (i) L'sofiil Arts, (j) Fine Arts. (k) Philosophy anl Rollisinh, (l) Pי川litical and social semence. To each of thene ehasens will he applied a letter of the apphatet, as atmex and in cath clas the books will he numbered conserntivaly irnm 1 wh, When the library has outgrown this clawiliation and himands a more minute sublivisinn, thic can arily he mate by adding a figure or mother letter to each of the classmarks, and renumbering the lowks. A clasilication mate for the individual library and growing out at its own exigeneies is better than one imported from without.
111. Cotuloguiny- (atalogning is recognizol in themost

 ially, primarily by anthors and titho, semmbinily by sub-
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 sistent with their serving to incutify the burks. Hnst libra-
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Permanent catalugue in manneript are now almost universally made on the carrl sumpo. Wall title is written (or tyewritten, or evell fintiol) an a matrate ! iristolhard card, gencrally of the orlinary fontal-card size, and thest cards are set on chate in mawers in ahblabetical order. By this means insertions can the male at any pant and to any extent without deranging tho tithes alrealy in plave. Entries are nsmally mande for ench lowk not only unher the mane of its anthor, as Brakelo. Augnstime. fibiter dicha,
 ly A. Birrell, and under subject, as Exibisif literature, Birrell, A., ohiter dicta.

Must bubst thas rapuipe threr separate cards placed in diffuent portions of the catalone In many casps even this is met sniliciont. For example, the bouk inteady referred ti. has distinct Chapers on aceral frominent Eimolish authers. To make the sulpect fortion of the catahgue comphete, each of these chapters reguires a cand heated with the name of the permon treated, as Miltom, Juhn, Bmerele, A., In his Ohiter dicta, wh. i. Johmeon, S. Brarfil., A., In his ohiter dieta, vol. ii. 'Tluese latter antries are talled analyticals, atol where thoroughnes of catabugher is made an diject, they hecome vely momeroms, as some buoks are worthy of having cards mate for them under a handred of more difliorent subjects. To mennee to a minimum the labor and experse of this elah rate tatahguing, all title and subject "ntries amd all andsuinals are usmally writen very briefly, just mough being given to refer the reander io the buok intomded. The anther-etard, wh the other hand, grnerally recwise more carefol and faller trathont. "n
 and the imprint, number of pats, cte.., alan all library marks necusary far a complete reated of the brok. The anther-caml this becomes the primary or anmphete antry,
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kept away from the thonk and served muly throuch an ap-
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 present sumie features atfecting the ahminiotration whim differ from thme met with in fublis libraries. Beformen -
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 cial attention along the lisus of the enranalum, while enomen attontion is pail to general literatuse to makn the library faily remesentative of the best andams. Whare semmary mithods of instruction prevail, department hibraries are qemerally furmed by with lrawine boks from the general litary for this purpase. The frenervation of these segregated hows from lose and minary ean only bo efferted by sume shets syatem as that emphayd al llamvard Unisersty. wherw bach of the department: is frequently visitem by an oftien of the libary, who meedis off
 alsent. It is desirable that the momber of bums from the general library sot aside for department nse shomb hot exceed absolute romuitments, and hooks of value for semeral reating shonta be duplicated if nemand for a dopartment.

In a college library there ean the be the samu at rinthess of remulation as to the fom of hows that is usmally thforem in a public Iibrars. Professors and teikhers will require emsitierable latitule as to the mumber of lomks takern out and the length of time for whith they can be kept, wor wan ang rernation of these matters be cutared by fines in the case of the farulty. It therefore heromas necessary that the record of loms shatl be so krpt that the whereabints of any book may be immediately aseertainol, in onder that it mity be sent for if esprecially watod. By such a systom a libary
 that one who desires to get a book is hot detarem loy its being in use. but may have it recalled if the person whe has it is nut actually using it at the time. The shotem of charging lowks loaned by means of cards, dearibed in the carly part of this article is exactly adiphed to this purpmes.

No clase of reaters is more likdy to be bendited by direct aceess to the buok-shelver than stmbents, and in many colleges they are frely atmittel to the larger part of the library. The idea is saming sromat that it is an essuntial part of a liberal edacation to latn to use hakks. Brisf courses in biblography and the use of benks ant miw given as a part of the course of instrotion in several endownam uniyersitios, and in whers cfforts are made to furniols to individual students visiting the libary all needed facilities for becoming acyatinted with the biblingraphical aquaratus, and learnine to make practical use ol it.

VHIL. Treining of the Liburtion.-The srowing demands
 of its importance have led to provicion for the tramine of those who woull enter it. Sincee lase a mbow of hhrary
 Cohmbia Collowe and now at the state Library ai Ahamy
 tion, theoretieal amd practical, aml hat alrealy gradnatad a large number of stmbents who are ancoptahly filliner important positions. Shater momes in library ieonomy are





 of the mertingo of the Americin Library dsembiatin, hold nearly every year since 1sith. The medine heli in wate at Chicago was sormgen that its parers ensered the whole
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 an enevelopadia of library sedende.
W. I. F'tum illir.

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 beame of revat whes to lime alter the summionon of the


Lib'ya (in fre aßin): the mame which was wisem the the Greeks to the whole continent of Africa, but after the Roman







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 the Bediterranean had anquired mone impulane on the
 time with the Tyrmenians and Ahatals, and condureal buwer bayd, hint were entimly defeated by liansm 11.




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Liloyan Nea: in anciont fengrably, that pat of the Menditerranam sithated betwern the Fhand of (reme, the Delta of the Nil. amd the territars of Carthare or Afrimapener. Syption lfajor and syrtes flimor were inleto of this sea.
Lica'ta, or Slicata : a seaport-town of siofly, in the prow
 genti (ore map of Italy, ref. 11-F). We expmets grain, wine. sulphar. ate. Near if are the mins of the ancient eitho. 1'op. 1i.tis.
 benties of hims and mammats. remgnized among the forms united under the cenmmon hame lice: the ome the hind-lise form ing a dintinct omser (Mallophet
 matamals beme inchuled an a gromp. Peresithe al lidiculina. among the Hemiptora, of tru hage (s, ExTomoneriy.) Tho bink-hie have their jawn dithed for hiting. 'They live athonst ax-
 cics of when hav ite ferentiar parasits. Thaty feed winn the fosthers and dral sking and it is
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 eqrass, und rearesis, and ajum which it might pass and repass raitway mar combaning iex and matorials for use in its ice honiness.and it apleared that this strip of lame atforded the only manme of comanmiation betwnen the ice company's promise and thas of the ralway company upon which the if" campaty dopmated for the tramportation of its ice to market, the comat hed that the iow company aequired an
 the partion, takirn in conmetelion with the langugge of the contrant, indiatad that thay intemdad to convey and aequire a permatnolt intereat in the lanal, and mot a revoenble user. (The Girmorood Lake, etc.: ('ompuny vs. The Nou York, efc, Reilmey, 1:4 X. S. 43.i) (In the other hand, a permisann hy a mineowner to another to enter and work a
 'The purchaner of a ticket to a phaw of ammsement acquires mo nowe than a licenw. which lhe prometor of the punce has the power ta rewoke at any moment. Hood vs. Leadbittre, 13 Messon and Welshy kis.

In imhlefasible interest in land ean not be transferred by

 mom. hownor, mat oprate as a license, protecting the party what ratios ruma it from all liability as at trespaner for

 acpuive the rimht to a converance which a court of equity will whfore. The imrement is mo longer a heense, and


As a linure in proman-that is restriated to the original parties-the dath of abler terminates it. Sodoes acon-
 alouratus, "r a mant which is imemsistent with the license.
 10it. Thorefore a farty who has a lienose for the ex-lusive Hor of a prisat" canal can mon maintain mation against
 contrate a lionnse to explore amd wamine the hat of an-


$A$ mero limenas is revorable at the will of the licensor, whether a walable comadaration has bern given for it or


 his mat. is motitied ty the gropriotor to leave the building,





In suma jurindiotions it is hall that in anse the licensee










the contimunee of the licenne, acquires no rimhte ley advarse possession, because he exeroise his priviture mot amant the will of the landowner. Int with hin consent. Nom han he the right to the interposition of a comert of equity 10 anmpal the specifie performane of an agreement will he the sathete of frands when made, but now partly furformed. He entered and mate his expenditures not on a jaten whtract for an estate in land, but pursmant to a livense which did not purport to give a permanent intares therein. IVItmm 5 Boyce, 111 Mo. 38: ; Laterene ss. spminger, 4: N. J. Eay 289. If the license is revoked, either exprealy or be implimation, and the former licenser comtinus to use the liand as before sueh enjogment will be alverse to the landowner, and may ripen into an irrevocable richt loy lobeschatios (y. i.). Eekerson vs. ('rippen, $110 \mathrm{~N} . \mathrm{Y}$. isw.
A transaction, may have the anmarance of a lioplase when, in faet, it is the abambonment of an easement. In abutime landowner consents to the emstrution of an rivatiol mail way in the street in such a manner ats to abmom to a wrtain extent his eqsement of hight and air therom. Noither he nor his grantee can revoke the consent. (White w. The Manhattan Ralatay, 13:3 N. Y. 1!\%) such a tramsaction is the permanont surrenter of an interest in thr lame of another; not a temporary permissind that wher to do a
 a misnomer, and produce confinsion.

Quasi Lictnes.-It is frequentlo sain that a licuse compled with a grant is irrevocable, and the following examble is given by waty of illustration. If one agress orally with another that the latter may cut and carry away growine tress from the former's land, this is revocable, before the trow are cut; but after they are eut, and have thus buome tho personal property of the purchasme, the lieme to take away sheh property is irreweable. It is submitter, howerer. thit the license to remove chattels from the lame of the whutor, wh of one who has brought them upn hi- land. on who hat consented to their remainine there, is a license hy onration of law, and not by agreement of the parties. iv it does not originate in the landowners conemt, but may ariveramet his will and in spite of hic opposition, it is mot sulfjeet to his revocation. It is as listinguishable from a true prisate license as a yuasi cont taet is from a true contract.

Frivis M, Iormak.
The rules of the Romon lon and of the modern Enmperen cotes are rery similar to thon of the English law. Xo civil attion lies for ingurio (see habed asd Slander, Mistory of) if the acts or statements on which the complaint is hased were authorizal or permittel. "Volenti non fit injuria "no wrong is done to him who consents; bat where such injurious acts or defanatory utterances are forbiden on grounds of puhlic interest, such anthorization or permision will not newesarily exelute the criminal actions establidned by the law.

As regarls property, immoruhle or merable, passusinan and nse could be granten at homan law hey a more license (precario) : and, as in Eurlish law, such license was reweabe at the pleasure of the licensur (prerario roqutus). Even an express arrecment that the pusescion of the liefnece (precario possidens) should continue mitil a certain date had ne effect as arginat the licensors change of propore. If tha lieensee refused to restore pessexinn on temand, the limenor had a summary remely-viz.. thr interlictum dp preturo but as against all other persus the licenste minuld the fon-

Precarinm, or lidenise. chaly reambled commmatum, the gratnitons bailment for use. "ommoletum aly, was applicable to land and to movaldes alike. Prearimon diftered from commondum ( 1 ) in the alsenee of all whisation on the part of the lieensor ; (Q) in that the licencer wat not li-


 responsithity for negligenor, aml to give him a connterclaim for necessary matlare and therefore as a rule, they do not recognize preariom as a sparate lowal mation.
 or it is exprenely derlarial to be a enswial form of commenta-
 right of the bailer to demand remplivery wherew ho



 recognize precurium as an whathe institution. see lons.





Honken smoth.

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The mementy of dataing a liemar law fully to perfom



 the state that it is for the wereral welfare of the publine that the state wr womment shall requlate ham, -noth at tha. practice of methein: the drivine of a pablio lark. the feddling of gomb, the celdnatim of marrace, the fimial of the dead, 4 te.


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II. 11

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A seretion of the phanthan! (thallue) -hows it to the com-


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Fig. 3.-Host-alge of lichens: A, Prutococeus érinlis, attankell by a thread from a spart of Thelosehostrs purietimus: $\}$ (: $J^{j}$, tococcus, with threals uf eleulonau furenta: I), Nompme: with threads of Leptwamm m!nehromm: E. Choolepus unboinnan. dissected from Graphis servintu.
term which it is still convenient to use . Some liehemolugists still athere th this view.

The lichen-threals penetrate or chasp aromil some of the cells of the host-alma (Fig. :3), form which they dopive nome ishment. Such attacked cedls som die, hat the others grow rapille in the most air of the interion of the lighen-thitlus. While individual alger here and there are destrosed be the parasitic lichen, the alga conny as a whole is donbtles inenefited be this symbinic relation.

Lichens are reprodned by the fomation of ownes of om or more kinds, and also by the exalue of endonien of homalge with a few attached threads (eanderl the formation of soredia), som resulting in the promnetion of a new harnthallus. Of the stalked spones (atyonomes) whith line certain cavities (prendial) now and then fomm on the thallus. we need only to say that they are prothaly asexnal yme loumologons with thase similarly amed in the black funci.

The spermognes are small cavities lined with hairs which bear great numbers of mimate spmo-like buties known an spermatia (Fig. 4). In ('ollome, Leptomium, and similar jelly-lichensspermatia are know formande fertilizine bunlios analogons to antherozonls, hur it is mot known whether they have this function in all lichons.


B Cramerowat
Fig. A.-A, spermogones of Physeris sfolloris whown as minntr hlack specks) : B, the same in section : (., spromata-bearing hatrs.

The ordinary swres of licherns are borme in mes. distis.


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 11., II.. 1V., V.). The aphthedia sary greaty in - 小arm mat




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Fta. bi-Gpore sacs amt mperta: A. Pb, tustmor humbers: B. C.

 Lam; М, Dewomyces rosells.
humbed or more in eath sat. atu mpally similar. The sumes are simple of mimbum, -phorinal. wal, or from
 the watle of the sure-sace are wery thin, and at maturity hare brokn mp, se that the sume are thon maked in the a"therium.
 one of the jelly-lichens (r'ollomet). In- foum that Jitw ime to the furmation of the anothermm a demplying therad de-

 the lichenthallus (Fig. ㄹ. ("). If the sme time ef ematia
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I. I. $)$











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 high．The haiding maderent extensive restoration in $\mathbf{1 6 a t}$ and in las．Thert in atathe of Jr，Jhanstu in the mar－ het－plate．Pope（14！ 1 ）indit．


 a sumall trea romblang a haromestmut，is ghmalar，about
 the arillu－inelume the whatry seed．This fruit is highly valual by the chimer，who dry it for prearation．
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 friguent journe the England，where he wadied the life of the pmoptr and gathem the material for his famons expla－
 thase are the lom known which contain his investigations
 tonlwore fismo．＂，whimb he explaimeil in two independent momors，llis satirical writimes made a great sensation， ami are still roul．His Colber lhysumomik wider die
 Fotmuntution dpr shapse dex allen（irierhentond（1882）

 hopplestirh，which first appeared in the Gollingechen．Mi－ manioh of whith lichtenhery was the fomder and editor． His exphanthas contributen very math to introduce 1 lo－ sath in dermaby．They are ntan wery striking and very witty．Lidhonherg＇s wit．however，though pointed and ernerally wo to hit the nail on the head，is of a somewhat labural ilnapinion．His writings have been repablished， with an exedhent int radnction by A ．Withrand（ 1893 ）．See



Jelats Gorbel．
 at the herimine of the thirtemh century；was educated at the whert＂f the Margrave of lstria，and was made a knight in we．His name appars in contemporary dorments
 In hiv franm minast，a thok which contains valuable infor－ mation conderning the entoms of the times，he gives an ac－ coma if hie adeenturous life and his forlish and frequently rithounas liveralfairs．His Frouphoch is a juem of more didactio chatumar．He may be considered the romanticist of the minnesong，who his futile affors to revive the waning ithalo of ehivalry，rewals the halicrous，monatural， and＂ena immal character of the whole st ructure of minne－ puetry．Sel the elitime of his works by lathmann（1841） and bednatoll（1x－i）：and Becker，Wahtheit und Dichteng



Lidinian Laws：ertain homan laws emated or pro－ pond at diftrent times bedifferent persons named Licin－

 Drabinting the ownimg by ange individual of more than
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 I．W．





He is supposed to have standed art in (iomgiones shoul at Venice for a time. We then returned to his mative phater, where he worked in freseo for peasants butil he acquired wonterfal facility of exechtion. He paintel at Valoriano. Vareno, Villanuova, Fontanella, Spithmeren, Lovai, amt at Treves, where his composition of The Magf hat a promemion of peasants in the backgromut that is mon realistic in trat ment. Ilis famons picture of The Ammmetution in the Chureh of St. Peter the Xartyr at Udine has been spoiled hy repainting, but well-preserved works are tu be mot with in many of the little villares of Prinli. At Venine he pammel the factade of a house in san benedelto. lor the Flomish merchant Martin d'Ama, using the history of 'intins as a subject. The foreshortening in this work is rmarkable. llis fame was henceforward ixsured, and he no longer hesitated to compete with Titian, whene successers stmolated him to further elforts. Buth artints jainted in s. (bionami di Rialto. This rivalry continutil in the ducal palate. These works have since been dentroged by fire. It is said that this emulation stimulated jealmasies sol bitter that when Licinio was hecorating the chosters of st. Stephen he hall a sword and shied bende him aways. A fiew frapmonts of his painting there remain. It was at this periot in his career that he printed his manterpiece, the s. Lomenzo crinstiniani, now in the Yenctian Acwlemy. He then workel in the Cathedral of Cremona, where his" fresenes are still to be seen. At Prince Doria's invitation he went to cenom, where be worked conjointly with Perino del Vaga. Ile afterward painted in Mantua ind at l'iacenza, where he dompated the tribune and two chapels of S. Maria li Cimpashal. Chartes V. eonferred knighthood on him. Je retnrnod to Venice
 resenting the cuangelists and ductors of the Cburch, wad remained till called to Ferrara by lereales II. to make designs for some tapestries. These represent the $\mathrm{Nanderings}^{\text {a }}$ of Ulysses and the Letoors of Merrules. There her was taken ill and died within three days ( 1500 ). It was sharectery that he was poisoned. Pordenine's work is chimfly fresco. Among his best oil-pietures are The Resurrection of Lazarus, at Brescia: a Iloly Fomily and a St. Mork. at Pordenone ; the Marriage of St. C'atherine, at liacenza; and the Anuenciution, at Murano.
W. J. stillaman.

Lick, Janes: philanthropist; b. at Frederickslurg, Lelanon co., Pa., Ang. 25, 1796 ; in 18? (btainal employment in a piano-manufactory in Philadulphia; a year later stanted in the same business for himself in New York city, bat failing to succeed for want of capital, went soon after to Sonth America, where at buenos Ayres, Vaparaiso, and other places he engaged in the mannfacture of musical instruments: in 1847 settled in san Francisco, where he invested in real estate and in enterprises, incomine wealthy thereby. In 187 he placed his entire property. anmunting to about $3,000,000$, in the hands of seren trustices, to be devoted to public and charitable purpuses. The buruests then made were in some respects $t$ wice changed betore his death. Among them were the following: For the construction of a suitable observators, and the erection therein of a teleseope superior to and nore powerful than any lefore mate, ston.000 , the same to be connected with the University of ('alifornia; for the erection of free publie bath in tim Franciseo, $\$ 150,000$; for the erection of a monament to FraticiSeott Key, author of The Star-spangled Bemner, in (iohltan Gate Park, San Francisco, $\$ 60,000$; for the erection in the City Hall of San Franciseo of a gronp of bmone statuary representing by appropiate dexigns and figures the history of California, $\$ 100,000$; to fomm and endow an inst tution to be ealled the California School of Merhanical Arts, situ,000. D. Oet. $1,18.6$. In 1587 his remains were placed in a vault under the pier sustaining the great equatorial teleseope of Lick Observatory (q. r.).

Lick Observatory: the Liok astronomical departmont of the University of Califomia: fommed hy James Lak
 "to expend the smof of 500 ,000 for the purpen of prehasing land and constructing on such laud at thesempernurior to and more powerful than any teleseope yet mal!". . and also a suitable ohservatory commeted theresith." the whin to be made useful in promotinir sitente. This was his only instruction in regard to it.

The site was selected during Mr. Lick's lifetime on the narrow summit of Mt. Hamilton. t,ens) feet abmer the sea, ant 26 miles E . by roml from san fose, the whicf city of Santa Clara co, Cal. Not only is the air clear during many
months of the year, but it is phint. of that the stars are stealy (to not twinkh). hume high mamitying Jowers can
 The major part of thin work wan inmuldent hofore Jome 1 , 18xe, at which date the whorratory wa transforred the the

 summit in owdar to get a lasul pat form for the buildings and instruments; to arrang a suthent wathonpoly; to make roads. ete. The main mad from san don was hailt
 ception of a few arres whid were ghrehasel, the land for

 howerer, whether the men pworful telesent was to be a

retleetor or a refractor. It was finally decided fo have a refractor of 36 inches char alertare and 694 inches foreal length. This was construeted out of romgh irlass disks, made by Frild Nantois, of laris. ly Alvan ('lark \& Sunne of Cambirdge. Mass. The object-ghiss weirh abont 600 ll . in its cell. The crown-rlase is 0 (i) inch thick [aftre] and
 $0 \cdot 3: 3$ inch [centes]. The rulii of curvature heginning with the first surface uf the crown are $r=r^{\prime \prime}=+2050$ inches :

 berokes the wisual objective (as aboset, thare is a third lens nf 33 inthes ajerture and radio of wrvature of $h=+$ 250.0 inches. $R=-3$ and inclues. When this is plamel in front of the visual objective tlae combination lumomes a
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 bime atter an abene of twelw years, and had been homered with pinlife fostivitios in ('liristimia and nther Norwegian ritios. Ithe wama (iruhurs lint (1880) and the dramatized frnm Fomstime strozzi ( 1875 ) did not rise abuve the aver4.
P. Groтн.

## Lieber, or Liehler: Se Eratis, Thomas.

Lieher, Frastas: phliefist: ho in Borlin, Prussia, Mar. 18. 1 sto: :swred under Blüher in $1 \times 1.5$ and was wounded at the lattle of Xamur. llaviner relurned to Berlin and entered the gymasium. wher he bequme the favorite pupil If Jahn, he was arrestal for his phitiond opminems and upon his diselarge sescral months later was prohilited from studying at the l'rusian marmitios. he monsequently
 aftorward thok part in the direrk war of indenembence.
 where he remained fir a war in the lomse of the hiverian Niblular. aml wrote his Jompal in (irerce which be publishen at horipag in lases. Ninhor ruituod the embassy at

 sia that heshoulal nit he' moketal. Ihe had hardly arrived in berlin when he was atain armoned unon the ohd charges of monity whe themment, whertaning repuldican senti-ment- and hehnging to : : into thersat" prian at kimpiek. . Ifter some months he was biln rated throurl Xidmhe presing solieitations. While at kinpliok ho wrote a lithe valume of poems, Wein and Womar Limbe which was published in Perlin mader


 rah and pivine lemor in the languge for his sulport.
 frem Ximmor, amp paral the mext five years in Buston at


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 lavined hy A. R. M. Mrall.










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 - rat. In the "ame of the ordinury or aforial lien the debt or
 bery antioh- lhamorlswhich are subjert to it. One who
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 luat the gronk maty he detamed for atomeral halance due for former arvion of a similat chatacter rembered in re-- fert wh whergonde of the same owner. The former is the ralle, the battor is the exoption: in fact a gemmal lien is motnithal moly in ary fow instances, and manally only by expmom atroment of the pare les.

 the frestasinn of a pernom, in orther that he may render

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 scriptian indudes all wanes of balments for hire and also
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 their fumbonin in the remrse of their resuective employmonts is a securits fur the compurnation dhe therefor:

 lion at the amman law, hat it has hern siven to then by
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 tha artarlomat his demand is paid.
11. Liquituble leates.-The liern whieh beronge to this elass


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demand secured can be airectly enfurced by their moans. An equitable lien is therefore is "hatera or inammbence. rognizable in efuity, wom property, ernerally land, wot in the possession of the cometitor, as security for the paymemt

 matter amb payment of the deht mat of the* promeds. "] "hat following are the mont important easos in which surb linns exist : (1) Whenaver land is suld or converod, and the prian remains lapaid, amd is stented in no of har mammer tham hy
 or grantur has a lian on the land as senority lia such wn-
 are mot conseved, and remain in that buscessun of the vendor. tha rendee has a lien therem for tha jorelama prien which he has prepaid. (3) If hame is converede om durined subject to a charere mpn it for the payment of delits or legaries, a lien arises mpon it in favor of the creditors or leratees as a security for the payment of their demands. (4) A deposit of tilledeeds as a security fot the lnan of money creates a dien in favor of the lember monn the lamd described in the conseyanees. (5) Aconrding to thr expitable doctrine which now prevaik in many and perdaps most of the states, the right and interest of the morterigen in an ordinary mortrage of lands is simply a lien on the puecmises as a security of the mortsige debt. See Mortgige.

Ili. Martime or Admirutty Lirm-The liens of this class are created by the law which is alministered in enurts of ammiralty, and they resalt as incinlents from varions species of maritime contracts and torts. In their genoral mature they resemble the equitable lima, both in not reaturing possession of the subject-inatter ly the creditor, and in being enforeeable by a jullicial proveding. They constitute a charge upon the thins, even thonsh in the cuntonly of its owner, and often follow it into other countries amd into the hands of subsequent purchasers. These liens mas attach to the vessel, to the carto, or to the pruceds of "and. and to the lreight earned by the ship. The most important cases are-(1) That of semmen lor their wares on the ship and freight, or their proceeds. ( $(9)$ That of material-men muder certan circumatances on the vessel for repatrs mate or supplies farnished. (3) 'J'hat of the shipowner un the cararo for the fruinht earned in its transport. Tlis is. however, not in its full extent a maritime lien, for it is lost if the goods are rolantarily delivereal withont payment. (4) That of the shipper on the resuel for the rative of his crools shipmed. (5) That ereated un the vessel by the execution of a buttomary bond, which is a peendiat form of security given by a mastor or other agent for maney horrowed by them under certain spectial circumstances uphat the credit of the ship. (6) That of salvors on the ship. ciarero, or reight which they hase rescued from loes by marine perils. (i) In case olt a cullision the owners of the injumel ressel have a lien on the one in fanlt for the damacesa catzand by the tort. Purely maritime liens are enforceable by a judicial proceding in a eonst of andmiralty, which results in a sale and payment out of the procards.
IV. Statutory Liens.-In addition to the foreroiner there are varmon other lims entirely created or regalated bs statuta. One or two of the most impurtant only meat ha mentioned. In many of the Statemo amd probably in mont. a lien is given by stiatute to mechanice, buinlers, and furnishers of materials mon the bumbiners comatructed or pom paired by them, in order to secure the cost of the materiats furnished and the price of the work and labor done. The statutes conferming thase liens glatly dithor in thatio dotalla. but they all anthorize atabicial pocambing fur thom anforcement inalagons to that for the forecolome of mant gages. Judgments aro made lims upmo the lamdu of the debtors therein, hat the frosisions of ihe statatos in belurence to their commencomont amb duration, and the lambe to which they apply are so varions and completing that no attempt will be made to connmerate thom.

Nothing has been satid in reaphot to those dions whichata
 tent must depend entirety apen the wipmations whidh tha partios see fit to enter into. and they are theroforo shburet


Revied hy (imorie W. Klrohwti.
Lier, leer, Abolf: painter: bo at llommunt, in the king-
 cr's apprentice in Zittan, ant uflurwarol atterndeal the art
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 high somal, large insumfactures of showe, Feot-sugar, lace, cotton, woulen, ath silk fabrites, and salt-works, hreworios, and dintillaries. Jiorre wat famons for it - Motlo imelantry in the Niddile deres and antil 1ost was a furtitied town. Po1. ( 1801 ) $20,183$.

Lientenant [readapted to Fro < M. Eusr. levtetement (rof. earlier pronameiation, loftenant). from O. I'r. litwhment. liter., place-huhter: lifu, phace + toment, pros. partic. if tenir. hedd]: one who acts in the reprementative of anomber. In the [V. S. army and matrinte curps a liontonamt is a eome missioned onfecer below the rank of a cabotatin. "There are two grades, thone of tirst and sevond licuternant. Second lientenants are the lowest in rank of emmonsmond ollieers. The first and secoml limatemants take rank with lieutemants juning grade and ensigno in the nary. A liantenant of the L. A. maty takex jomk with a eaptain in the amos. llis oflee is noxt higher than that of lientomant junior grade, and next helos that of liontmant-enmmander. I lieuten-ant-reneral in the arny rank: 14 at below a general and next above a major-general. Wis rank is equivalent to that of a vict-admiral. Limotenant-culonels in thatarms rank next below colonels amd next athere majors: their rank cor-
 commandors in the nary rank next below wommandars and mext above lientenants; their nothere cormoshonds with that of majors in the arms.

Revised by Janes Merctr.

## Life: sere Bhology.

Lifeboats: buats constrmeded velecially for the psenje of

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Fig．5．－－Frabeis＇s life－car．
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hame A．Whitney．



Life－insuranee： 1 lex exarantyiter of money eontingently on human tife．The gharathy is fiven hy anderiation or
 tailual，with it－combtion in a writhon instrunent termed
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Pohiofo of insmane are of varime kinds．The chiof are ＂howe life．＂mownent．endownent insurance，term，joint


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Dr．Prime Suthanpion table was the first known to
















American experience table．They are lewe inserted，with the expectation of life a derluced from ditely ：

| A＇TUARIES＇Table． |  |  |  | Amerlican li |  | EXPERIENCE | Table． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age： | Number of tiviag． | Number <br> of deaths． | Exprecta thot， y tara | Aft． | Nambit of livitge | Vamilur <br> of duwhs | $\begin{aligned} & \text { Exgweds- } \\ & \text { lijal } \\ & \text { ye.m. } \end{aligned}$ |
| 10 |  | Unt | 4． 36 | 10 | 106， 19 mm | Tf\％ | 14 |
| 11 | 明扣： | lity | 4， 194 | 11 | 4 4.8 .4 | 7.48 | $1 \cdot 1$ |
| 1＊ | （ $\mathrm{m}, 12,20$ | 17： | 470 | 12 | 1－545 | 7 H | 151 |
| 13 | 9\％${ }^{\text {anc }}$ | tial | 415 | 13 | 17． 10 | 711 | 11： |
| 14 | 9.310 | 12.1 | 45．181 | 14 | 56， 12 | 7.35 | H14 |
| 15 | 915， 6.36 | 1.11 | 14． $\mathrm{ll}_{6}$ | 1.5 | 36，${ }^{\text {an }}$ | 73.7 | 15 |
| 16 | 915， 90.5 | 10： | 44 | $11 i$ |  | 73 | 44 |
| $1 \pi$ | 97， 443 | 18.3 | 43.54 | 17 | ：1，以14 | 72 | $14 \%$ |
| 1N | 94.4030 | 80.5 | 4＊3 | 14 | 34.104 | 72 | $43 \%$ |
| 19 | 933.415 | 18.7 | 4219 | 111 | 130．36 | Fin | $12 \cdot 4$ |
| 20 | 93，Otis | 6xil | $41 \cdot 49$ | $\because 1$ | 12， 1637 | T：3 | ＋2 |
| 21 | 92， 5088 | 68.3 | 418 | $\because 1$ | \＄14．911 | Tご | $41 \cdot$ |
| 2 | 91.405 | ESif | 4119 | 3： | 91， 110 | 7 | \＄11 ！ |
| 出 | 91， 219 | 090 | 39－3： | 23 | 910， 71 | T | 41.2 |
| 24 | 90．5： | 694 | $3 \times 68$ | 24 | 83， 017 | 219 | 3n－ |
| 25 | $84,83.3$ | 698 | 3714 | ？ | K10．038 | 7！ | $3 \times 1$ |
| 28 | 80，137 | 203 | 36 | O1； | xa． 314 | an | $3 \times 1$ |
| 27 | 88.431 | 9148 | 34056 | \％ | 84，59\％ | TK | 3.4 |
| 䍐 | 87， 26 | 714 | 35.86 | $2 \times$ | mb， 5 m | 714 | 36 |
| 4 | $8{ }^{8} 7012$ | 2＊3 | 3515 | 34 | Nit． 1 lit | 714 | 36.11 |
| 30 | 8 c | 72\％ | $34 \cdot 43$ | 30 | K． 1111 | \％ 0 | 3.3 |
| 31 | 85，565 | 734 | $33 \cdot 2$ | 31 | 81.101 | 71 | 318 |
| 32 | 84，K31 | it | $33 \cdot 01$ | 32 | R，1han | 23 | 213！ |
| 33 | 81， 0 \％ 1 | 750 | $3 \times 30$ | 33.3 | $83.20 \%$ | 7 | $33: 3$ |
| 34 | 83.3301 | Tis | $31.5 x$ | 34 | N0，5．51 | 72 | 325 |
| 35 | $82.5 \times 1$ | 7 TH | $30-$ nit | 35 | 41.4 | 73 | 31.4 |
| 36 | 81,514 | 75 | $30 \cdot 15$ | 36 | 81.0941 | 53 | 31 ！ |
| 37 | 81，0：38 | 745 | 24.14 | 31 | N0，3， $3^{3}$ | 74 | 319 |
| $3 \times$ | 80,553 | 963 | 淢识 | $3 \cdot 4$ | \％1，ili 1 | 74 | 49 |
| 39 | 79，408 | ＊ill | 940 | 33 | 780 | Trit | － |
| 40 |  | 815 | 43 | 40 | TS． 106 | 2th\％ | 年： |
| 41 | 7－s3\％ | 8 | 26 | 41 | 7.311 | T\％ | 号 |
| $4{ }^{2}$ | 75 |  | 2．${ }^{\text {a }} 4$ | 4 | 76， $5+10$ | Txis | S |
| 43 | 76.173 | $\times 5$ | $\cdots 12$ | 4.3 | 25，M－ |  | \％19 |
| 44 | 75，316 | N 1 | $\because 4$ | 4 | 74．99． | 812 | 20：3 |
| 4.5 | 74．45 | 94101 | 枵 689 | 4 | ：4．113 | xis | $\because 5$ |
| 46 | 73， 2016 | 914 | ？ | 16 | 23．34． | 814 | サ3\％ |
| $4{ }^{\text {i }}$ | T $2.5 \times$ | （ia） | － | 4 | $52+97$ | x，0 | 231 |
| 48 | 71.6101 | 1，0：1 | 21.56 | is | 71， $162 \%$ | N010 | － 1 |
| 49 |  | 1，11：3 |  | 49 | 611，i31 | 6id | 2116 |
| 51 | 69.517 | 1.1108 | \％ 14 | 50 |  | ！16： | 29 |
| 51 | 6is． 119 | 1，1號 | $1: 15$ | 51 | $68.81 \%$ | 1.164 | \％ |
| 52 | 67．233 | 1，虽 | $1 \times 8$ | 52 | lia．$\times 11$ | 1.114 | 195 |
| 53 | 60， 146 | 1．201 | $15 \cdot 16$ | 53 | 66．7n | 1.1411 | 18．${ }^{1}$ |
| 54 |  | 1，311； | 1\％ 50 | 54 | 65．at | 1.143 | $18 \cdot 1$ |
| 55 | 63.109 | 1，393 | 16 Ni | 55 | $64.56 \% 3$ | 1.194 | $17 \pm$ |
| 56 | tiz．0．4．4 | 1． 136 | 16－2 | St | 63,3154 | 1.201 | 16.7 |
| 57 | findth\％ | $1.49 \%$ | 1．） 51 | 54 | 62．104 | 1.33 | $16 \cdot 1$ |
| 58 | 5！ 1414 | 1，961 | 1\％ | $5 \times$ | 619.008 | 1.334 | 1.5 |
| 59 | 54．${ }^{\text {cill }}$ | 1.1027 | 14.3 | 59 | 5，＋3： | 1.46 S | 14. |
| 60 | 55.96 | 1，6，24 | 13．71 | 6 | 54.612 | 1.516 | 11.1 |
| 64 | 54.275 | 1.30 | 13.15 | 61 | 56，3\％1 | 1．tien | 135 |
| 62 | 58.50 | 1． H 11 | 1：131 | 62 | 51.843 | 1．713 | $1: 3$ |
| 63 | 5）． Sitil $^{\text {a }}$ | 1．41～ | $1 \pm 0$ | 63 | 53， 10.317 | 1，Wimt | 133 |
| 64 | 4s． 54 | 1，9\％ | 11.51 | 64 | 51.5311 | 1，\％－ 1 | $11^{\circ}$ |
| 6.3 | 46， 5.51 | 2．0\％1 | 10．97 | 65 | 49.341 | 1.140 | $11 \cdot 1$ |
| 66 | 41.4083 | $\because 12$ | $10 \cdot 16$ | 66 | 49.331 | 2．1191 | 11） 5 |
| 67 | $4 \times .06$ | $\because 151$ | 9 ym | 64 | 45031 | 2．1．in | 111.1 |
| 68 | 419.354 | \％2814 | 914 | tis | 43．133 | $\because \because 13$ | 95 |
| 69 | 35.128 | 2， $2 \times 1$ | $9 \cdot 14$ | 69 | 40．401 | $\because \cdot 3 \div 1$ | 11 |
| 90 | 8．$\times 3.3$ | 2.38 | $\times$ ¢ 5 | So | $3 \times .518$ | Q，3：11 | － 5 |
| 31 | 33，510 | 2．351 | $\checkmark 10$ | 11 | 36.15 K | 2112 | $\pm 11$ |
| 2i | 31，159 | 2.363 | － 40 | \％ | 3，3，430 | 2.45 | 76 |
| 33 | －2．${ }^{3}$ | 2.356 | $\pi$ | T3 | 31，243 | ？ | $\cdots 1$ |
| T4 | 26，13：31 | －1，339 | $6 . \mathrm{at}$ | it | 20．38 | 是里1 | 13 |
| 75 | 24.100 | 2．30］ |  | 分 | －4， 237 | $\because 2.4$ | ＊ 3 |
| 46 | 21.744 | 2，249 | ［i］11 | T6 | 93．812 | 4.431 | \％！ |
| 7 | 19.514 | \％．179 | 5 5\％ | \％ | －31．3331） | 3，3694 | 55 |
| 78 | 17，300 | 2， 102 | 512 | ix | 14，9191 | 8.2011 | 51 |
| 79 | 15．2\％ | $1.95 \%$ | $5 \cdot 19$ | T19 | 16．650 | $\because 1106$ | 4 |
| 80 | 13，400 | 1，86\％ | 4 is | 80 | 14．174 | $\because 1291$ | 11 |
| 81 | 11．124 | 1． 1.30 | 4.4 | 81 | 12.380 | 1．314 | 11 |
| 88 | 9.601 | 1．5＊2 | 4.14 | 8 | 10，11！ | 1.46 | 3 |
| 83 | 8．11\％ | 1.128 | $3 \cdot 90$ | $\times 3$ | N，mid | 1.1618 | 31 |
| 81 | 6．62\％ | 1．20 | \％ 63 | NH | 6，025 | 1．tin | 31 |
| 85 | $5.11{ }^{2}$ | 1，111 | 3.36 | 5 | 5.44 | 1． 210 | \％ |
| 86 | 4.3116 | \％15 | 311 | 86 | 4.159 | 1.111 | \％ |
| 87 | 3．34 | 811 | ct | mis | 3.1519 | ！ 11 | \％ |
| $8 \times$ |  | 6n3 | $\because 59$ | ¢ s | $2.111 \%$ | 711 | $1:$ |
| 89 | 1，Med | 54.8 | $\because$ | 89 | 1．112 | 0 | 1 ？ |
| 90 | 1.319 | 42 | \％ 11 | 90） | 9 | 3 B | 11 |
| 91 | くば | 32 | $1 \cdot$ | 11 | die | $\because 11$ | $1 \because$ |
| 92 | 5711 | 2 ${ }^{1}$ | 1 Hif | ！ |  | 13 | 111 |
| 93 | 3 SH | 1．is | $1{ }^{2}$ | 13 | 71 | $\therefore$ | 19 |
| 91 | 181 | 4.3 | 1 184 | 9 | $\because$ | 14 | 118 |
| 95 | 9 | \％ | 1－12 | 95 | 3 | 3 | 115 |
| 96 | 8 | 21 | $0 \cdot 6$ | 9 |  |  |  |
| 94 | 13 | $!$ | $0 \cdot 4$ | \％ |  |  |  |
| 94 | 4 | 3 | $0 \cdot 5$ | ！ |  |  |  |
| 93 | 1 | 1 | $0 \cdot 31$ | 99 |  |  |  |





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 that the prominm ders its fall shate of the watk．It it of the lirst impurtaner．there fore for deforminne at the ont at buw mach a－sistance this matter of interent comble safty combled uman to rember－mot this yar men next yar alone，

 smmewhat hagher．＂The late of internet lubime fixerl and at mortality table selpeterl，tha detmomination of the freminas fos any kiml of policy is simple in primeiple．
The full or office promimm in any cabe com－ints of two
 tain addition theretn cathed the loudiong．The luadiner and


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 fotominime the amomb of the necesorary deporit has just
 pmine in form at the ent of the first yar is "and if the semme yent it is se.0.64; and simiburly for ench
 just inturing at 41 , his. not amman promimm would he 823.19 ;

 is the prement value in band ofthe cents paid anmathy in andrane for life by a jerana aged 41. If he were just enter

 valum of slais paid ammally in alvance for life by a persan
 must lu $\$ 15 \% .34$, the proment value of $\$ 11.3 \pi-$ the difference brewen the net prominm son.35, which he pays, and s33.70, which he womld be required to ghy if he were just taking hiv pritioy at age 50 . 'low ammont of the depost on a policy [aid for leye equal anmal prominms, continued for life, must ahats he the proment value of the differnee between the not fremimn patid and that which would be requisite if it Were laken by the same persol at his then increased age at the burmming of the your noxt sucecedine.

It is evichat. From what has predede. that when a life policy is faist for bymmal premimms continned for life, the depmit or reserve is accommatated to aid the insured in contimung his insurame from year to year: that when mid fur by a single promium such depmit is intended to effect hiscoulinued insmanee; and hat when paid for by antual |rominms continued for a limited number of years only, the
 prom humber of benrs, at whels thme it must be suflicient for cifent the continand inamance.
11. A torm julieg in a enntract in which the company
 abmmat of inomey at the end of the yetur in which he may dio. provided his death shomblecour within a certain numInre of yours mamed in the polices.

Ill. In endoument puliey is one in which the company




(hilhen's Limfurmont I'micies-l'lase are promises to piy, on a whild's attanimg the nge of cightern, twenty-one or fwenty-dee veare as may he mated, a certain specified ammant. In vas of tha chaldo demh lofore the are sperd

 a mixal charater. consisting of a phe endownent for which a coptain fromium, wither simere or ammal. must be paid amdatorn incurance an the thille life of an amonat which varios with the forminms palal bofore the paliey becomes a


I'. An mberment imserme (eommonly ralled an endoumenf priliey is a conhtimation of a pure eindmwnent with a
 - 1 and of monms at a comain fulura perion in ase the person on Whame lifi inamrame is made shomld then ba alive or at
 pervial.






 "vimpites rivern, accuraty of result is made to yieh to simplicity of

VI. Ammity.-This is a contract in whioh atompmoy agrees to pay a given som ammally, whor durimg the remainder of lite or for as specified jumber of yome it the person on whose lifo insmance is math shoulal live wo lone. in consideration of a gross sum [ail at one lyy the ammoitant.
VII. A sumborship ammity is an agrommat to pay a speefied ammity to a momine dorimg lite strvivarship of the ferson on whone lifo insibrance í mates.

The polides which haver veen briefly "Xplationd are the chief and fumbamental ones. Other wariotios aro ohtaimed
 of paying preminms, to diatribution of surphas. ete. wnly one such variety will be treated of hero, viz.
 orolinary lile poliey, or an endownont matanoce peliey with from ten to twent y yars or mone do ran, in which the tom-
 tures of it are-the hohbers of such prolienos comst itute a clase by themselvas; thay du wot partiejpate in protits till alter the lapise of a certain number of yatre (tem, tiftom, or twenty), specifiod in the fulicy: in caive of acath hedore the dividend perion harinco the reperentatives alt the insured
 renter value is allowed to any me who may rolinguish his poliey, and no dividend is credited torsurla fulicies as may heome thams hafore the dividend brime arrives all frofits aecruing from erery somper within the elats are reserved
 lated dividembs are thentole equitahly divided, wh the rom-
 Thare are, of course, variations in the apmbeation of the

 mulate in ench sumemibe bear of its comrency, bunt the same gentral principles amel for thos same reabims as were given umber life poliobes. It may in manmal In stated that the deposit on a peliey at the ent of any vear umot be tha present value of the difurence between the not premiun patid by the insured and that which wonld In reduired from him if he were just taking, at his thon inareamed age, a policy of like kime amd amount temminable at the period specilied in the poliey. 'I'he sum-total of all the dromsits held, with their accimanated interest at tha assumed rate, is known as the resores 11 is ako callad rosorep for ramsurance, inasmmeh as it is thamonnt with rapert to each proliey which a company, in transferviser oromsuring its in-
 make it safe for the latter to andertake them.

Registerfed Juticios,-In sereral of the statas life mompanies authorized on transad lmsinass therein are promitted by law to make with the state insuramee dapartmant a spectal deposit of sermritios for the proterdion of erptain puliciss. The pulicies thas protected arw daly romistered in proper books kept in the dipatment liur that purpuse. The seeurities so deposited must always bow kot "fual in rialan to the net present value of the remistered poliobes. Thestate
 plication of the reserve fund on the reasterem priliadas of at company, hut does not enaranty the mymont wit weh jullicies. Very few palieres are resristernd.

 actness, on eertain assumptions of mortality and inlemot. to

 which the calcolations are mede shmbl amome with than facts experimeed in ucompany, nothing wonld be hatt for expenses and other neersitias of the buxime. Than mot
 for expenses ant] contingencio. This allitionall sum, wi-

 full or offire prominm. 'The expencis uf mandmetins the business are many and latien. 'Jher chatof of them is that of agents. Nearly all tha basintes of a lifer ramplatmy is wh-


 which is a certath perantare of the premimme un palicies obtained through their inatomentality. 'T'he' (onmmionan
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 the hamme of phlicy－holeters．All ages from one to seventy are takern．（＇lams are patable promptly at death．Dales and fumalos are taken ial same cost．Only healthful lives are insured．

TABLES UF RATES．
Tuble for Infants．
Amount－payalle for each 5 otents of weekly premiums．
Amount payatle prwibet death oceur after 3 calendar coonthe from date，

| $\cdots$ |  | Amount payable prwither death oceur after 3 calendar coonthe from date， <br>  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ＜ |  | 㤩 | 48 | 离 | 产 | 这 |  |  | $\begin{aligned} & \text { 高 } \\ & \text { 空 } \end{aligned}$ | 咅菭 | 률 | 管皆 |
| ＊ | 515 | E1\％ | 200 | 2：1 | 20！ | －3\％ | 84 | 8.50 | $3{ }^{3}$ | 8.5 | 306 | 8115 |
| 3 | 17 | ：11 | $\because 1$ | 24， | 35 | 4 | （10） | lin | 75 | 95 | 115 |  |
| 4 | $\because 11$ | 84 | －9 | 边 | 42 | 51 | （10） | 75 | 11. | 115 |  |  |
| \％ | 4 | ＋1 | 昭 | 40 | ¢11 | （i） | i5 | 45 | 115 |  |  |  |
| ii | \＄！ | 3 | 1： | 51） | 1ill | T 5 | 115 | 115 |  |  |  |  |
| \％ | （k） | 4＊ | Pri | tir | 75 | \％＂， | 115 |  |  |  |  |  |
| t | 4： | （16） | 121 | \％ | （1） | 115 |  |  |  |  |  |  |
| ： | 51） | in | 75 | （15） | 115 |  |  |  |  |  |  |  |
| 111 | 1ill | 8 | 35 | 115 |  |  |  |  |  |  |  |  |
| 11 | Tr | 3\％ | 11. |  |  |  |  |  |  |  |  |  |
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|  <br>  | Ammont | Age nu＊ Mrothans． | Anmmet． | Ay navil bitiludn． | Ambuth． | Ase mest hithtura． | Amount． |
| 13 | －11\％ | 4 | S－ | 43 | 845 | Tis | 805 |
| 11 | 1111 | 291 | is | 41 | 13 | 59 | ： 3 |
| 35 | 115： | ：${ }^{1}$ | － | 4． | $4{ }^{4}$ | $(1)$ | 2． |
| Iti | 114 | 31 | 711 | dis | 411 | 61 | 21 |
| 1. | 112＊ | $3:$ | lii） | 47 | 89 | （i） | 20 |
| 14 | 1 CH | 33 | H2， | $4 \times$ | 32 | （i3） | 19 |
| 1！ | （1m | 31 | 193 | 14 | 31 | 61 | 18 |
| （4） | in | \％ | 1.1 | P11 | 3.5 | （1．）． | 17 |
| $\because 1$ | ！ 1 ！ | 34 | \％ 4 | ？ 1 | 3：3 | lili | 36 |
| 吅 | ［17 | 37 | ：iti | P12 | 3： | （ii） | 1.5 |
| \％1 | －4 | 324 | 4 | Si3 | 31 | fis | 14 |
| $\because 1$ | ＊i： | 34 | 枵 | ： 1 | 3 | did | 13 |
| \％ | N1 | ． 11 | ：11） | Or， | ＋4 | \％ 11 | 12 |
| \％ | －1 | 11 | is | ：Hi | 2－1 |  |  |
| 5 | 7！ | 13 | 10 | S\％ | d |  |  |

Co-operatice or Assessmont Insuramer-". In assmanamt insurance suchety is nome which prominess to paye on the death of a member, as many dohars as its member-shall then contribute. In some cases its laws provide a limitation harond which the amount slall not go: so that. the limit beiner fixed at si,000, the batanee paill in beymad that ernes to it gencral fumb tor the rednotion or "xthetinn of future a sessments. No definite promise other than this is mathe as to the amount. Su loner a- the money jaid in remains above that sum, the sum is binl. but when the anomat receiven falls halow it. only so momeh is patil as tha assasempht realizes. This is what niay be detined as the lemitimate and profer assessment phan. All other devices are ont-dife of it. and whon engrafted upon it arednasive. As at ruln there are no asorts, itnd there is no partionlar responsibility. As the payment of the assesment is abmlutely voluntary an the payment of the benefit is practically roluntary." ( $X$. $Y$. Ins. Report, 1s6.) These remarks apply pationdarly to
 nies that report to state insurance departments diftrla conduct the business in a war ditlerent from that indionted, as follows: 'The management expenses are provinlerl for by an annual chares to each momber, wheh is the same for all members irrespective of are, and is colled tho ammal dmes. An initiation or entrance fee may be requirel. and is called membership fee. The clams arisine ammally hy the death of policr-holders are provided for by vearly charges to the members, which charges they are really net ammal life premioms) are grabuated acourding to age. and atre talled mortuary assessinents. By a perentatre adided to etch mortuary assessment a fund is accommated to be held as a reserve or emergency fund, to guarl against the danger of excessive mortality in any ont year, and other montoward contingencies. The memberthip fee when exated in of course paid at entrance. The annabl has may be paid at the beanning of the year, and the morthary itsessment in weekly. monthly, fuarterly, or other installments: or the anmual dues and mortuary assessment of a member maty bedted together, and the sum resulting paid by him in jerindic installments. The business thus onducted is practionlly one of pure, or net, insurance, wherely the necessury "xprnises of conducting the business yent by yeir and the net cost of insurance each year are paid ammally by the inamed. The cost of insurance constantly incrases with the age of the insured, amd in the later yedrs of life must become an excessive burden. To obviate this difliculty in jairt some of the companies have a plan, which they eomment to the public, by which the anmal eost of insurance for moll of several fears, "omputem from a table ol mortality, is inereased by a certan amome for expenses, and the sum so ohtained divided in such a way as to make the pryment required of a member the sume for each rear of the periond. It the cont of the period, the necessary emmal ammal charene (it will, of course, be larger than before wwing to the increased age of the insured) for another perion is fixed in like manner. A poliey for which the payment is so arranged is merely a renewable term palicy, and shonkl the term be extended ta include the whole of life would be the ordinary whole life poliey of the ontinary lite eompany. There is, apmanty. a temeney in companies, as their age increases ind theid operations extemu, to assimilate their methonds with those ut the ordinary life company: :und it wombatpear hat rearamable that the requirements of law ajplieable to them hombl be also assimilated

Gonernment supervision.-A few of the [..s. have nu laws regulating life companies further than may ha menessary for purposes of tasation. "lhe nost ot then. howero" -and all of them in which the husibess hats grown tu he of
 tection of policy-holders ant the supervision of cmapantes by a state olliectr. The following lamof abotract of the insuraner law of Xew York will well illustrate the kimd of supervision exercised and of protection affordend for fuliov-






 their par valne or above theire corremt markot value or in
 tate within the state of New Sork wath ity procut. more
















 izell tulmbl, in the bembls i-simal ly any city, connty. fown, village ar selamil liatriot of the state duramat to any law of the stata : such company may inven any amonat of its


 upen real photerts in sum state whinh shall be nuineumbered, improwerl, and worth doulte the sam loantal theroon
 premiam bubes at least fifteen days notioe to pay the same bats been given withont aflex 1: a policy that has lreen in foree three fall fears, should it herome furfeitalle for nonjayment of preminusa is entithen, mader speritied conditions anil for its comtinuance, the the reserve un sump polies. including divabud additions: at detalem statembat, on blanks furnished by the sumerintendent, mant be nate of its atfars hy eath eompany tran-actimg hasiness in the state on the first day of Tambary in eath year, ur within sixty labs thereafter showing its comation on the thints-first liy of Werember then nest precendines: the information obtained from the annual reports of the companies mast be arranded and talmaterl ly the nuprintembent amb prevented by hims, with such remarks and recomandelations as he maty dewn jroper.
 must make ammally vahations uf all ontatanding pulicies ant other obligations of every domestie life eompray duiner husines in the state-the valnation of the Pmlicies to be
 table of mortality amb and asommed rate of interestat 4 per cent. : the suprintendent is cmpnoweret to aldros inguiries torany ermpany on ans matter eromberted with its transiastions. reply fo whinh must be franatly made in writing no-






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 State, whemever the saperiatombent shall dean it for thas
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With rerard tu the hasiness of co-rjurative or assessment
 are fall atal reliahle statisties. There reported in 1891 to the Jnsurane Jebartmont of the statw of Now Jork 119 co-n)

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(on-rative comannies (1191 had in fore 503.39 policies.









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 -hall athain their probathe fature siza." J. J'. Fackler, at tho. ammal mereting of insarance commissimers and supervinors. 1s! た。
J. 11. VAN AmRinge
dife-preserver: a small buoy drsigned for attachment tothe forsom, and malle of canvas or of some otler fabric stuthel with enrli, or of lmdia-ruhtur athl inflaterl with air,
 ammin whath the follawing ate the most motable.
 withor of intlated rubber or artestultal (anvas, the hole in


 watre, the Juser lacing whal lamath the arms. 'This is a




best, instead of a canvas covering filled with granulated eork, are made of solid eork blocks seemrly fantened tugether, ant then turned in a lathe to the required size and form. This construction is very firm and burable, and the solid annulus, being covered with canvas waterprofed by painting, retains its buyancy luring long immersion.

Bloch Life-preserters.-Commenly made of block of enk inclosed in canvas, two blocks being hinged topether he a sewn joint in the fabric. These maty bued as simple buoys. A more elaborate construction makes the spare of


Fig. 2.-British golil-medal life-preserver. falsic between the blocks large enough for a lowe through which the hean maty be thrust, the fabric resting on the shomblers of the wearer, and the blocks. one on the breast athl one at the back, being lith close to the bouly by suitably arranged strings.

Life - flouts. - IFollow drums, provided with strats and buckles for attaching the alparatus to the person; the more complete have receptates for saving papers, sotket for statif of a signal hag, etce Buckets, stools, mattreses. ete.. have freguently beten made buwant with a viow to their une as life-preserving lluats when thrown upon the water. Life-presurvershave also betnmate in the form of jackets which are readily haced and retained in proper prsition upun the jerson. Cork jackets were known to the fiomans, and air-inflated jackets to the Engrlish as long ago as 17?4. An improved cork jacket (Fis. 1), devised abont 1si3, was construeted with sumplemental floats at front and back, whirh depent like the skirts of a coat excopt when the wearer is in the water, when the floats rise by their own lnowaney against the breast and behind the shomhers, and thryeby asint the flotative action. A belt stulfed with mramated cork is at tached to the waist of the jacket, and the arms and collar are also filled with the same material, quilted in to keep it


Fig. 3.-Merriman's life-pre serving suit. in phace. Rubber vests, to be inflated with air through a tube and mout h-piece, like the rubler flont, have been devised. The combination of a bust amd waist float constitutes a European life-preserver (Fig. 2) which has securod several golil medals. and apletars to have met with much favor.

Life - preserving Trousers.These comprise tronsers, bonts, and annular life-preserver, all in one. atm? the first projestor of them aperars to have been .. Dacintosh, whowe patent waw dated Now 11, 15:3:. The wearor phaces his fect and legs in a par of sack-like pantalamme elonsed at the lower extremitius, with an air or cork-stuffed anmulus arranerem to be placed beneath the armpita the trunk bing inclosed within a sack-like barly eormectimg tha anmulus to the tromsers. In 140 R. Purter added to the fort prortions of the slevice a pair of feathering propellars

Life-prespreing swits.-The sureess atherea by Capt. Danl Boyton with an air-tilled waterprouf dress (lig. 4) has given to this variety of life-preservers a prominence never lwfore at tained. Ilie crossed the British Chammel in it in ast hours May 28 ant 29. 18~5. The apparatus (Fig. 3) used ty lonyton was that patented by Clark $\therefore$. Murrimen, of Vallisca,

Ia., July 16, 1892, and its ohject, as set forth ly the in ventor, "is to provide a water-proof life-preserving diens sulficiently indlated with air to sustain the wedeht reatuirend. while the limbs are allowed fiall fremban of action in swim. ming ; and the vital heat is retained in the bodys, the inter-


Fig. 4.-I'aul Boyturat sea.
Vention of a stratum of air lntween the boly and the lress acting as a nom-combuctor of hemt." The dipes is manle of India-rulder, and comprises a head-lites. janket, and tromsers, the whole son ennectel as form an air-tight suit whiel can be intlated like an ordinary India-rublur liftpreserver, with the breath. Inoyton attached a sail to the suit to assist his progreso whilt at sed.

TAMEK_1. W゙hityey.
Liferafts: rafts constractial for the purpose of saving life, when hoats or of hor mons are mot awalable. The oldest form of liforaft. ami that still frequanty employed,
 possible. Many plans for the ir impored constration lave been proposed. Some of these combinas some ordinary use, as that of a mattress, settee, bench, wr the like, with these of


Fig 1.-Mattress life-raft
a life-preserver on a large sombt. A life-proserving matorese, weiphing $1 \%$ Ib. catable of su-taming in the watorent li..






 tention in a horizontal posifinn. 'Yhe luat bamant material

 tive power of the material rabilly to a duaree estimated at


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Fin, 3 Combued air that amberk liferaft.


























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 Fibreman mantion i- laft wh with that in berat lartana the that of the lenter of Trate. 1s


'hima for anthrias ber bevalent instimtions. chatly on






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The intituthat on thal. [. gratually grew ont of the sen-

 1hermato of Lamer lame abl Siew lerey during the first
 fright ful wrenk. oftom of the cmigrant ship of thome days.




 were withon erews. fut the value became sonvent that

 "reaned. until in $18: 5$ thore were 201 stations fully supplied with the hut-knes a applances.
Conder the urgaization efferted hy the years of effort







 - tations. Thase statins are howso a stery and a half in









 -hathe arm simply prowioned buncs of refuge severally

 on haral to land ta-ily without a-xisable the main damper tor the lather hing of ifeth from hanere and thiot, as the
 "x.epl thow humes of refuge, have sewrally a keeper and
 arand residing an daty al thair lonely longe for the "ight mont indument mantio of the yar. They are the bet of
 -andy in the aromm of their ability to be of service to seafarpe in ther-of neril.
The mat imprima of the ordinary station-duties is the


 he [0: surf has timn the har har to phemes. Hewe the emplasis
 fina and tatime the law in atedily patronlad hy the erow wry mirht from mand tadawa; if the wather be thick,













If han -urf i- at all within bomma, huwew danger-


on board in safety. If it is plain that lonat-serviee is impracticable, resort is had to the wreck-ordnanee. The inn, trained with skill and judgment, fires as shonder fine orer the hall. This line has been presionsly conlet over a frame of pins, which, now withlrawn, leaves the line in layers of loops or fakes aranged to pay ont froly and fly to the wreck without entanglement ir frictim. I Ghank pros trudes from the end of the eylinitical shot in the gun, to the extremity of which the line is tich. Once on board, the

line is hanled upon by the sations, and brings out to them an endless rope, called the whip-line, reevel throngh a pol-ley-bloek, to whirh is attached several leet of rupe, called a tail. 'Ihis tail is made fast to a mast. One side or part of the whip is then hauled upon by the life-savers, and the other side takes ont to the sailors a hawser which has heen attached to it. The hawser is then fastened to the mant a couple of feet ahove the whip, the shoreend drawn owr a wooden croteh 10 feet high, and fastrned in the samd by a buried anchor. Cpon the slender bridge of rope thas comstituted is suspedel the lifeerar if the monter on board in large. The liftear is a sort of eovern boat of talranized iron capable of containings six or eisht persons. Hune to the hawser by bails and ringe it can he worked out to the vessel by the whip, and drawn hack acain when it has received its load. Sumetimes, howerer, the hawser is di,pensed with, and the car is drategh hack and forth through the water by the whip-line alone. If there be only a fow persons on boad, a lighter contrisance, called the breechesbuoy, is brought into play. It consists of a cireular cork


Method of using brepches buoy
life-buoy, to which is attuchent a short pair of canras breeches, and is suspanted hy lanyarls to at traveler-ibsth on the hawser. It is worken liok and forth by the hanlinglines, bringing in one man at a time, who efits into it. his legs dangling through the breerdes, antaned ly the canvas suddle. By sudh mothode the lives arte sawd. Uftem. after suffering seat hareships. Frems ram the shate seemingly lifoless from patanstion, or apparently drowned. For such cases the station medicine-chest is un hamb, comtaining appropriate remedies.

Besidus the saving of life, the rosene of promery is a conSpicums though secmblary feature of the sorvine. 'The -nff-
 them from dangrous situathons. roberins leakiner bands, raming lines where it can mot ha dho wifh ordinary hats.

 out anyonher ain than that of the hapinerew, and ofton atone. Their unremittine wath madla them for warn off thmerous craft in imminent lanew. 'lhe number of suth

 phone lines with telegraply station chathas the morvie t. sive to the maritime "xchanfos and umberwifurs frompt

 any. and to sond directly for the noupect thes and other
 or fatal comsen uences might realt from lelay.

The operations of $1804-9$ are summarized as folluws:

| umber | 9\%: |
| :---: | :---: |
| Yalue of property involved. | रิ10.03. 13 |
| Talue of propuety maral. | 48 |
| Value of property lost | 1.514.!10 |
| Number of fersins on luard. | 5 5-2: |
| Sumber of perams lost. | 26 |

Number of persons sheemon at the stations.
803

$$
\begin{aligned}
& \text { Number of days ouccor aifordei....... } \\
& \text { Number of vessels totally loat....... }
\end{aligned}
$$

The contrat letween the -howing made ley this summary and the frichtful fatalition of the Geare before the present life-suming urgmization is sutheint to make evident the value of this hranch of the public service.

## Revionl hy s. l. himbalk.

Lif'fer River: a stream about all miles lung, which risue in the momatans of Widkhow, Irelant, and flows bastorly throurth the gity of bublin int" Ibulin bay. Dublin is divided bes this river into two nemy y equal farts, limed with sparions and sulstantial quays, and connected by bridges.

Lifts: See Lletators.
Ligament [from Lat. ligomentum, tie, hand. Itriv, of lighe $r$, tie, bind]: any one if many structures in the animal urgmion whose fummion it in twheld wher uram in their phaces. The articulue lisamente are fomm in must of the monable joints. They chnsiot in mont cases of white fibrons tissue, which is very thexible, thach, amd inmastic. Some, like a part of the ligaments of the wortebrat, are partly of yollow fibroms tis-ble, which is very tastic. Artiondar ligaments are capsular whon they invest a jaint an all sides: firseiculer, when thoy are that bamk of thoms tissue gasinis from bone to linn: fimicular. Whel they
 mary glame, uterus, balder, ete.) have ligamemt- labling

 prevent lateral dighacement. Fuhd of preritenemat, alnimed firtal vesselo. or ships of fascia are mate to serve as ligaments for the viscera.

Ligan [etymolary unknown]: sonnt that have sum in the -a a, i, it ate attached to a buny, in onder that they may
 the san so fay from shane "that it can but bermed to what lame or districe they are for the reforme", ami delates that

 of Lard t'oke the doutrine was woll ondabhed that such
 red hy the wwer mun brying reasmable salvare if my
 them the helonged ter the "rown. Artionse relatine th such gomen were hrousht in the aldaimaly and mot in the com-



 in surgery the "peratim, am? the cond or hame mond in the
 in the strangulation of a thmon or the likn. "The-ligature
 disenered, the first acenthe of it- wor hang laen given
























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 hafore remming the jaw. (o) Fimally, it is ratidy dinm with a viow of -hatime on math hand-anply from a mphly









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F'., it hagims to emit real light, and is sad to the "red hot," If the tomprature i- ranem atill further, the eolar of the light erambally "hange tuward white. antil a "white beat" is rew heal. 'lhe sum, the great sumece of light to our phamet, is, acembing to all fhatal hass, intersely hot. Artificial lighn, from the combintion of gas in wher subances, emanites from intmaly homad paricles in a state of combustime. The lominsity of the clectric sark is due to the momentary heatime if the air in front of it, as it passes from whe ilentrate bo the wher. 'There are, hwewer, certain sumene of light which have not been traced to the What hating of matter, of whech the following are the priacipal

1. Thenpharest nef.- IV hen certain hunies are exposed to interns lisht, "elechally that of the sum, they are fomad. whon taken intw a hark phare, to cmit a cortain quantity of ligh for a shom time withomt hoing apparently hated. lat his an- we may have something analogens to a molecolar hating of the intimat particlea of the bofy. See Phos-

2. Gridution.-The -luw oxidation of organie matter, as Araying wowl, and of eertath chemicals, as phophorus is -
 ably hate torlo with a condition of the molecules analogous to thue of a hatath haly,
3. L"itul defirity.-Mattor becomes Iuminous under certain form of rital antion, as in the ease of the common firefly. Somphamation of this ley known fhysical laws has yet hern dival.
4. Charrare Eleptric or Magnetir Attim. -The light of the
 fure amb the sthe may lue true in certain laminous effects pralumi in an exhaisted bulb which were first diseovered hy ('rowkis.
Proputpetion ant hellertion of Liepht-- Light which emanato from any sume whaner promeds in straght lines, with a delinite belowity, until it monds some body or some form of matter. It apprently sulfers to loss in passing throngh a monm tomy divalue. It is true that its intranty, ur the quatity of light which falls upan a unit of -arface dimininde invirny a the share of the distance from the surte. Thlis, homever, is mot owing to any dimimation in the total quantity at lioht, but only to its heing fred wer a gratur surface. Imagine suseral hollow Whers of sharieal surfares at listanes 1 , D. B, ete, around
 "ill ter in the ration of the mumbers 1, 4, 9, 16, etc. Each surfinw whald rewis. all the light emanating from the point were that insile of it removed: but, since the light on tha secome subure is sutal wer four times the surface of tha first, ach unit of it- surface reveres only one-fourth as mu-h licht: abla unit of the thirl ome-nimh as much, ete. Gu far acobervation has show, light comes to us through the immener intercal which shatate us from the fixed -tars, without any hes whateror. A ceinhrated theory of tha axtimetion of light in the mase through sace was, in-
 tembh contury: hui ha deriven it from a thery of the order and arraneriment of the fixul stars whirh has not been


Whon light strikes a huly, whe of three things may hap-


 is, howerr, that in all base a grater or less anoment of the
 all the lisht whith fall mun it. In the care of most gases, Whan in a state of furity, 1 le quantity of light reflected or
 the light facem thromeh great ditanow in the gas.




Xiture af Light: Thi rindulatory Thoury-TWo virws of the manme of light hase hern hold by phinmphers. Une is





 frimbind by the attraction of the berty upn the corpuseles
absorntion oeeurs when the bodr neither refferts the lieht nor transmits it．Sir Tame Newion was the preat－म户口 of this emission theory，and the weight of his name long gave currency to it ：but it is now univerally rejected．

The madulary theory of light attmintes that mont th undulations in an elastic medium．known as the luminiferors ether，filling all space．This thery hav bern fond tor at count so completely for the phenomena axhihitel be light that it is now acepted as one of the fmomental comolnsions of physies：but in studying the theory，the worl＂umbla－ tion＂must not he understond to necesarily imply an actual wave－motion of the parts of the ether，mor must the ether itself be revarded as a form of matter．In fata the monark－ able comedence between the relocity of promation of light and that of electro－magnetic efferts has recontly led to the conclu－ion that liyht is really in the nature of a juri － odical electro－magnetic polarity of the luminifermes ether． What we can certaing say is that lipht eomsists of an altor－ nating action of two opmsite kinds；that these two anmosite actions，when equal，will amihilate each uther if combined at the same jrint and the sane moment，as two ofprite motions would：and that the alternation takes flace with exceedine rapility，millions of millions of thme in a secmet． and within the space of lese than one－thousamith of a milli－ meter．In these reapects it is quite analugons to a wave motion，and may be represented by it．

The followins figure will illustrate the wave theory of light．It is supposel to represent wase in a medium which is iteelf at reot．while the waven more from left toward right，as in the ncean．
It the print－A B．ete．，the dioplacement of the medinn is upwath，and here the coresto of the two wate are fommat the monent ：at If and 天 the divplacement is downward， and here are depresions in the waves．Thas each particle of the ether，considered in itself，is cunceived to he simply moving up and down．On the plectrmatnetie theory， howerer，no actual motion of the ether takes place，but the ether at $A$ and $B$ is polarized in obe ways and at 13 and $\mathcal{N}$ in the opmoste way．Whaterer theory we alopt，the dis－ tance A 13 or M N is ealled a wre－length．

Now imarine the wave to be in motion from left towad right．This will mean that the particlee between A ami $M$ are undersoing elevation．those betwen II and B dever－ion． ete，at the moment represented in the figure．Thus all in the particles are contimually in motion，making a complet． vibration down and upagain in the time in which the wave moves aver une wave－length．This is alled the urat－fime． and if the wavelength and the relecity of promation are known，it is easily fomm by dividing the wave－henth il 1 ， by the velocity．It is thus found that the vilmation＊ur changes of pularits at one point oceur millions of millians of times in a secont．

Relation of＇olor to Wure－length．－The fact that light is something compenite in its nature was first clarly preat by Newton．when，by the action of a jrim，he rambed a ray of white light into lighte of the farime prismatic colno． and by recombining these colors reprotured white litht． It is now fond that these differences of color arise from the fact that the lirht which emanates frm the sun．and indend from any incundescent solid bonly．is not of one wase－hength． but is composed of a confned mixture of wisue of esery length down to a limit depenting on the temprathe of thi body．and that differences of wave－length affert the mitic nerve so as to prodace a sensation of ditirenne uf cohne．＇1the relation betwen color and waveloneth may he mated anme－ what as follows：Let ns take as a unit the ingomh part if a millimeter．Then light of wave－length itunits will apluar intensels red and will suffer a cortain refration on tuthe－ ing a prism or other thationarent subtance．If the wam－ length is gradually diminithen to B．the affor wh the re wilf change to salmon yeflow．Is the bugeth dimini－hin from 6 to 5 ，the vellow effert will change to arem．Iman－ ishing the wave－leneth from in to t．the ugtioul teffert will change from ureen to bhe and vinlot．In the wase－lousth treomes les than 4 ，the color will change th labmbur．amb then the light will entirely disapmar．With esery diminn－ tion of the wase－length，the amomat of refration liy a furism or other transparent body will eontinually in reate．
 length and of the ame intensity are prefeetly alike in ath of
 stance would be．It follows that one light can ditfor from
another onls in intensity and wavelength．Allowdiarykinds


 times suppoed to be exactly－rwn primatio（al｜r－：this
 by a prim，it will the ard that there in orny gratation of coler from the extreme fell th the＂alreme viblet without any break whatever．sue＇chure．
Identity of Light amil Rudent Iroll．－T＇he wawelength＝
 longest limit that we have just mominman ：that in for ay，so far a optical obervations ge we light ha－ateater wave lengeth than seren and a half of the almex dodinal units．or
 how ver．Why the mululations or fularizatims of tha ethar ［maneed by the action of hat of other＂anses shand the limited to this wavelength ：in fat，thos are min so limited The athal ware－lenethe of the modalations of the ethoreal medium hare a range so wife that it has net yet herph de termined ：hat when the lenath excembranita it no longer affects the equic notre，on we do mithe the shation of hieht．Still we have the smontinn of lwat and are therefore led to inguire into the whation butwen light and hat．

Let us stuly the phommonat of the latter firm anmoner Juint of view．We all know that the sun is continally
 posend to the－unis rave it lowoms wam．Wi．know that the－ame thing is true of al fire：heraming lefore it we
 hatat dee mot arise from athy wamine of the air．If we
 hath befre the air grat－wam，and be morely hanime a semon bufore cur face．we cent wat the heat wit．This show that the heat whith conne－from the fire fanconso in otrainht

 chace the irme wt hall fimi hatat is raliatel from it in

 －reached that all bulies raliate hatal at atl thmetatures．

 from the ice to the hamb－hat from the hamse raniatine

 ject of inquiry．The natume of the relation wa formery espored hy raving that buth light and hat wore raliatom： hat the view how unverally ：atedent in that the two aconte are identical．The proing hy wheh this view is sus－ taines are tow numerone to be defalled at lenterth．It will suffice to say in a mental way that hat in fomm to lave a Wabeleneth．like lierhat，and that at ans given wam－hugth



 thangh halico emit radiane at all tampraturas．bet the

 how wer hicla the temperature，hat that ray if the cherter

 wo may imane that at tha tomprathe of builine water

 this：：ath as the lendy thenthen hat amd hotter radiance of Waye－lenerth io comtinaly thlded，until at a whemature of
 a millimeter．atre emithen．Then for the firet time we hatr
 what we call light．The enlur is a thall red．A－the tompura





 heneths．

 make can we detect any interval of fom le weon the mo－ ment when heht is alowed to cange from a hmimms












































## $L$.





















In that from which they tame: botit when the mirror is set
 -hw

 What the llash is rethectal to the distant mirror and the time that if rovurns. as -hown by the donted Jime the return ray

 is whell the marron is rublug. sulpusine the mirror to

 the dinatace whel the mirrme revolves while the ray is gomar and coming. Knowint therext velocity of revolution "I the mirror. the timu mah ray remuires to go and come is "xactly haterminmal. It was theic foumd that a ray of light wont from lort Jyer fo the Wiahington Momment and hank in about twonty-live millisuths of a secont, or someWhat lean than the forty-homandila part of a secome. The disance lutworn the twa goints was determined with great arromary by wiamonhation. It was thence conchoded that light mant in tha air with a velority of $29!1$ is0 km. per

lethir Eiff, ct of Liyht.-It has long been known that lirht is canabo of probucing certan chemical changes, esprially in the salt oul silver, a property which is now util-
 athe was once attributed. like larat. to a sparate kind of raliation. It is mow fomml that the atimic effect is merty the wotion of light itwif: and wine light is mothing hat radiant vorus. it follow- that all the effects of heat. light, and chem-
 The deat that the artinio "flat was mot due solely to the liart was firt sutatisted he the fact that only the blue and vabl mas af the sperimu, or thone of shortest wave-
 -haw that any whate eabe has acted; it merely shows. What is now well maderstombl that the rars of short warelanth ate than whicls are most powerful in producing


The whion, fromerties, and applieations of light give rise to a number of branches of rescarch, the priacijul of which 4aty tor colmitiol as follows:
(1) The Comblatory Throry.-To work out the results of this thenry bopures a mathomatical investigation of the laws of vibuation of an elastic medium, as the ether was shyphed tulo. This brameh of the shlyect is too abstruse to he treaturl in a [rapular rycepatia. The mathematical simbent wha wishe io pmrate it will have to consult the orivinal memoirs of ('mblhy. Hamilton, abl other writers.

(2) (ifombtrival optios-This brancts of the sulijeet is "encermet withtalawsofthe roflectioname refracion of light
 tinn of these laws to the const ruction of citicol instrments,
 the et laws wili be fonmal under (ortars.
(:) Pheysume phtas, whinh is concerned with the laws of the action of litht of different wave-lemithls, the measuremont of there warelounths, liffration, phazation, ete. The livivinn of this sulyect which offers the most interestinte thell of tumy is that of diffraetion. 'The measurement uf the refrative imbios of rarions tansparent sulstances may be inelumed in the same gemeral category.

 an indiated by their smatra. I'his suhject is treated under



(6) ithysuluyprel optox of the laws of rivion hased upon Hw athen of light math ofti- merve. 'I'lis suhject is




$\therefore$ Newromb.
Lishtiont, Anos. II. W.: Ihdrew orlmhar: h. at Stoke-






fordshire: in 1600 master of ratharine lhall, Cimbuldge: and in 16it vice-chanceflor of the L'niversity of Cambridge. At the Restomation he was rleprised of his materahip, but it was smberpently restored to him, and he ator whathed a canonry at Ely, whore he dien Dec: b, 16:3. Ir. lisht font was prohably the mont leamed Hebrew abomar that bingland has ever probluced, and his great wark, horn hotmera et Tu/mutice (165N: new and impored ald in 4 vol... hy Gamlell in 1sial), is still a stambarl anthority for 9 he ilhastration of the Gopels by means of the l'almul and Minpanh.
 Meptaght Laricon, and Poole's Sympais Crificormm. Ile mantained the inspiration of the wowelopents in the 11.brew bihle. His miserllaneous works were chlmeded aftar his death, together with the work mentioned, in two whames
 cdition of his complote works being that of l'itman (1andon, $1: 3$ rols., $1802-2.9$, wheh contains a life and ath mathorate bihhography.

Revied by s. M. Ja'ksen.
Lightioot. Joseph Barber, J. D., IV. (t. L. : bihlical sclumar: b. in Liverpal, England, in 1ses: gradnated at Trinity College (ambridge, in 1851 with high humes in "las-
 professer in 1st1, camon of st. Pauls in 1sin. and lishup of Durham in 18:\%. His commentaries on the l'maline GunHes displiy great learning and ability; they womper foble-
 sions (1sion), each with ar revised Greek text. H1. has pulnlished the Trao Epistles to the Corinthimes of St. Cloment of Rome ( 1 se: ) ; with an alpmix containing the newly rcovered pmotions in 1sTi): Epistles of st. Igmatus \& Vols., 188.9): he was me of the New Teamont company of Pible revisers, whose work he explained in an esay dh "frash Rerision of the English Xhee Testument (1sii): alon wrote. magazine articles, of which the most matable wepe dirmeted against the anonymons author of a work in stipernotumel Religen (1si5). 1), at Bishop's Aucktant, Durlam, Dere 21, 1489. Naw rolumes and new editions of Bishop hishtfoot's important theolowical and exeratical works ane buing published under the difection of his literary exeroters. The following have appeared: Dissertetions on the 1 pasentic

 21 ofl. $1 \times x .1)$. Shortly thefore his death the hishop printed it statement of his views on The Therefold Diutistry. "onsisting of his latest references to this sulijeet fomen in his collected writing. This very valuable and anthmitative parar is reprinterl in full in the frefice the the the colifon of Canom Malenlm Mactoll's Christianity in Melutam to Secence and Murals (anl ell., p. xxivo-xxxyio. Ammar the bishol's minor writings are the Sermon bufire the herpe-
 siomon befure the 'hurch Congress at Woltechumpton (15si): and Adress at the Reopening of the ('hern), Aluckland Custle (18ss).

Revised by Wr. ̇. l'EkRs.
Lighthouse: an elevated strueture, wally tower-hafud. containing a light or lights. It is designeil turne ats a gaide at night to mariners, who in the laytime, whon within sight of shore, make use of lanharks as ruides, and when on the open sea find their way by means uf the comprow, amd determine their positions by astronomical olservat inns.
Lighthouses seem to have been known from very carly times. The first of which we have enertain information wan the one at Alexambria in Exybt. This lighohouse was huilt about 300 b. C., probably by J'talemy soter. It stonal in the island of gapos, just in front of the city, and hemereceiven its name, which hats become genmerio in the lansuage terived from the Latin (Lat. phomes: Fre phom: Sp fowe). and aven in English the worl phate wis ente used. This lighthonse was destroyed during the funtwnth ematury probably ty an earthquake. Athangh the Farm of Alaxandria is the monet celetrated of the Fuwers of antiguty in all probatuility it was not the first. There is widmew that as far back as the Trujan war a tower sulyurtine a lieht for
 the "ntranee to the bardanelle-. Other funero on the lar-
 have antedated the Alexandrian Firls.
 all of which have disalphared with the watpond of the oht at Coruna. This tower was built arimushly whata coterner staircase. When it was restored in 1 iat, " in urtare to pre-

[^1]serve as far as posible tha remembramo and alparamo. if the Roman structure a whe projecting ntone hamd wats lmilt oll tarh of the four farco of the new tower, followine exatly the solve of the ancient out-ide stairway."
buring the "ark Aster lightlomate fillowed the fate of all other rewalto of carlior civilizathon. With the Benalisance they began to allumar arain. Mamy wer built on the Fromely centists in the seventeenth and wirhtepath centaries. The Trinity ITanse cor1"Hation wa- ormazed in England early in the sixteenth enntury, and in the following contury it was in charge of the lishting of the Engrin $\mathrm{h}_{\mathrm{h}}$ comats. 'Flus' first lichthnose build within the limits if the E .5. was the Botum light on the moth sile of the entrance tu booton harthir. 11 was erected in $1: 16$.

After the formation of the $[$. s. fanermment, early attention was given to the


Fig. 1.-Minot's I. +alcre lighthouse, pwar (9nstruettim of lightlonsumes, and the cane of these aids to navigatinn was wested in the Treasury Iherartment. The servia was umber the (wntrol of tha fifth anditor until the lighthom haral was
 of the Treasury as president, of two naval ofticers of hinf
rank of two oflicresof the emps if Engineers af the army. of tworgvilian of hish reientific attainment-。 a third naval ofti(cte as the hat val sectetary, and a third ensineter onticer as The engineer serretare.

Liyhthouse Comstruction.Hariners when apraching a chat arm always on the lowhoit for annething whembey to dotramini their exale proition. If thw armach but manlo at nisht a liacht first strike the vight: if it be ly day some lay mairk serves thin same pur- $^{\text {mat }}$ lume. A licht Sosen ivalled a "land-fall"


Fig. 2.-Minot's Ledge, as prepared to receive the fomdation stumes.















 datmpt．Wha















 Hropating the row for that fommbation thefure


Cuighthuse at ymerta，


 Wort was rapuival for


 after obe tivat lardime


1 dipert dowerndant uf the Mimut Lanler Jisht is the int at



 rame of howlhet＝ Waが心 weme to lar atn－
 Jumbll here at thanes
 $\therefore$ ：milan athlnhr．Jur－ ille tha wintur thes． chaments cutry biach



















 －いis．
































 had hönd dentroy＋d．ind thate were the remains．

 ing the aldustmont of ilie jllummating apparatus．Thirteen day litme the dreht win shawn for the dirst time．The great










The light at Tillamook Rock is 136 feet above tho level of the sea.
Northwest soal Rook is the outermost of a dimmens reef of rocks, called st. Gensers leenf, extembing if or a miles into the ocan off the extreme northern mid of ablifornia The shate of the rock is a mogh wat, with a ribere moming from lis. to W. : its area at the hevel uf low watur is athat $40,000 \mathrm{kq}$. feet ; the highest buint is 54 feet abome low water. The watur around the row is atsot 30 fathons dow rock is exposed to the wates from any direction from the $s$. by way of the W . to N . It is very, lillienth for land at the rock. The structure propmed and andpten for the station is a pier of irregnlar oval fom, latsing its top of feet above


Fig. 5. - Northwest Neal Foek lighthouse.
the sea (Fir. 5). On thic pirr stands the keepers' durelling. in the cellar of whith ane blaced the formernal mandinery and the hoisting-engimes. In one side of the buibliner stands the stone tower. from the top of which the light is shown, at a height of 14. feet abowe tha sata. 'To revere the joier the outside of the row hind to he ent into four benolhes, and the part of the rock loft stambing lad to bue varepareal that the surrombling masomer endid he bonded into it. 'The rock gave every indjeation uf lexing, at times. complotely swopt by the waves, yet in ordm to have the area required for the pier the first hemehes hand to be ent less than is fert above fow water. There was mon wint of the row where mon or materials eomld find wom a temporiry lodgment bumand the reath of wases. As neithor men now inaterials cond le kipt on the rock. amd as the nearest lambing-mint was 1 m milns away, a vessel was used ats a living-place for the men amd as a storehonse for the tools, ete.. rergired for the work. The vessel was moored a short distamo from the roek hy two lines leading to ring-balts in the rock and by fomr lines
 fast at one end to a ring-bult in the ronk. and at the other end to a mooring-bury lat fere from the ressel. Thle fore and main thmat halyands were minde fint to the st map of a block over which the wirernge mond] work amaly. By means of the halyards the part of the mue at the virael cambl he raised or lowned. A traveler hhwh mosmd ly an mbllow rope was usad to send the men amimaterish to tha rack. and to bring the former hatk. The mon ware wandally
 the benches for the fommation eornsan were ent in therest.
 all during the seasum.

Ton prepare the rock for the buttom comaras af tha pier a

 center eone was ronghly atep!nd t" rocoive tha matanry.




 jecting half its lenerth jnto the mernse halow, "xayd in the upper eomrse, in which the dowels arm maitom. hat atl the


 patent hammers. This serees as a water-talhhe with in in hes fall from the conter to gutters ant in the fond at the outar
rim, whane the watm ic carried hy a t-ineh pipe to the cino tren in the hase of the pisel. Tis prewent latikure, all the joints in the top of the pres were arabend on a depth of 2
 tended with brilad linarial will.






 (3) where the material of the subtrathon is liable to the ate tadked he water.







 mataive oetaromal fomblation of laren granitu blaks ate in
 of the same kint. At the proprer levisht the wetamonal pinth




 caviation far the formbation Was carriod lal: ferl belan the lewel af the surfare. In this exancation was plated a cir-



 From this lelt consse starts the tower proper. which is the



A- an example of the mamblat clas oif fummation, the
 important lisht in the (fulf of Joxion. 'The suil where this light stands is the mere andimmatary depmet of the Mis.
 veretable mattore. It is tow malt to sumian ans emondorabla



 feet and wht off at ? fit din, helow law wathr. In the cen-







 sorket links from which the lexe of the skelatom tower






















 whieh surraumds the structure. Whem the conerete filling


 atome ?










 Thin paty if the eylimpor is limed with masomry and eom-










 What i hbus



 6 fort at los wator of surime tiles and li3k at hish wator.
 gennrally eromals on the shat abose and helow the sta.







Anothur surt of fommatations of thin clase is that atopted for somere of tha fownont the lelarida kers. The tower at












Ther fommentan of the lighthonse at liame limek, at the












 prition hy a lis. 1 .

















 atunt a mila farthere buchore.

 hail. athl it - comparatibly -mall cost. 'flat lighthouse at







 "xternal limater of the bottom sections of the legs is $1: 3$
 luand sumanively by ath inel, so that the top section is of - inchus dianmetar".
'lhe con of thene ditierent structures is:

|  | \$33P,000 |
| :---: | :---: |
| -1ヶctucla Ve+t. | 4616.(1)6) |
| 'Tillammek lanck | 1233.3614 |
| Nonthwest sual liok. | 7330,1010 |
| ( 'abr Hntura |  |
| lobly ${ }^{\text {coshand. }}$ | 173:2 6 |
| Maspuitar lnlet | 135,600 |
| Southerast [ases | 270.700 |
| Ohd Orehard shoma | 57.500 |
| Fondeen Funt Mank. | 124.410 |
| ]ramlywime Sheal | 160,600 |
| Fowey liorks. | 163,000 |
| latee Rosel | 285,700 |

Limhthonas Illuminaliom.-It will be well to lay down a few prindipes lufore dearribing the apharatus used for lifhthonse illamination. Any brilliant body ennts rays of light which, if not arrested, go ont in all dirertions. As an wherery gres away from the body its brightness diminishes. as lat eomes mear it indrases. This chature of latightness in an abohutely transparent atmospore takes place aceordingr ta" tha law ol the inverse squares," i. e. if the light be
 at these dintancer in $\frac{1}{4}$. $\frac{1}{4}, \frac{1}{7}$. $\frac{1}{25}$... of what it is at a distame of 1 yard. lo an wrlinary atmonpere this law holds
 partiolde af all surts, varar, llast, we, which are in the air. 'The ber of liotht then heoomes mreater than the law of in-
 nu-asary to anowntrate and make parallel with each other the rays uf light given oft by the lody. ']his mat be ac-
 iur throngh it. "lhas wiry is onllen the "dioptrie"system. It may he acomplishod by refleating the rass hate from a prowily shanal mirrar. "Ihis is callad the "catoptric" sys( 111 ).
'l'be simpleat reflentor which sende out the rays paralled In iateh otlow is that made by revolving a parabola on its axis. A parabmat (low (i)
 juint is sithatool at equal dintamex froma atron penat. catlod the furns, num from a given stratut
 the crivern straight lime.


 line: 11 . $X$ is aillal the axis. If the erarve bre made ter rovelsabront the nys it will makr a halJ.w surfitere. whioh. if rut lys any plant pasing


Fia. 6.
 A marked eharartor of thin not of mirror in this: every ray


 1-14.. $1 \%$
 ( facerl that its wonter is at the forens of the reflector.

The rass from the side $E$ of the flame are reflocotal atong the hnes $\mathrm{E}_{2}$ and $\mathrm{E}_{2}$; those from the sixk F a are reflected alung $\mathrm{F}_{1}$ and $\mathrm{F}_{2}$ : the angle Et


Fig. 7.
$\varepsilon_{2} \mathrm{~F}=\dot{E}_{1} u_{1} \mathrm{E}_{1}$ is called the dixer$F_{2}$ gener of the retle tor. It baries $F_{2}$ slimhty from point to puint of
$E_{1}$ the curve, as the distance of ead point from the name whands.

A third way of chanding the direction of the rays forto on the optical fact that rays of light striking the plane face of at transparent body unter at artain angle, which yaries with the ermjurition of the berly, are thtatly reflecten. This is called the principle of tutal retlection. The ray starting from F, Fiq. N。 strike's the side of the triansular prism, of which A BC' is a section, at 1 ; here its comerse is changed to the direction $\mathrm{L}, \mathrm{M}$; at II it is twally rellected from the face (' 1 ? and takes the dirmetion MN: at N its cmurse changes again to N11. Wegi-

- H ine a proper position to the prism the final direction F II of the ray may the made parallel to the lorizon. This system being a combination of reflection anl refraction is called the "eatadioptric."

All three of these aystems find their andication in lighthouse ilhumination.
Nothing eertain is known about how the lighthouses of ancient times were illuminated. It is probathe that it was by means of burning wool, although some writers think that in the following lines of Luranins's Thursalict

## Sel prius orta fies nocturnam lampala texit <br> Quam tutas intraret aquas

the word limpurlat points to the use of some other illuminant. It is more likely that this is only a puetic ex] ression for the tower and the liuht it carries. Pliny, in aluakiner of the lights at the tops of the towers, expresson the fuar that the steadiness of these lights may rause thom tos he taken for stars, as they look munh alike, "Periculum in continuatione ignimm ne sidus existimetur. quoniam e lomginquo similis flammarmm aspectus ent, and it has hern thonght that this fear would aplly better to the light of a lamp than to the waving and unstealy tlanes of a woml fire. Outside of these vagne prosmmotions there is nothing to show that the ancirnts useal oil-lamps in their liehthousis. Be this as it may, it is well known that whom and coal wrote the usual illuminants for lighthouses matil after the midule of the eiglateenth century.

In the early part of $16 \tilde{c}^{\prime \prime}$ the sum of 1 s bod. Was paid hy the town of Mull, in Wassatchuseths. "for making fire-baj]s of piteh and ocum" wharewith to lieht the leatem.

When the Eddystone tower (liatyerd's) was destroyed in 1755, the light was given by :2t candles weichiner $2+11$. pach. It is not known certainly whether candles were nasid
 is thought to be the casis. The cortouan light. ond uf the most celebrated on the French roast, was lighted loy mal burned in a laree open hasket, until 18x? When the amblbasket was rephaced lay samgrain rellemors. 'l'hew worm segments of spheres with an oil light riven liy row, two, or three fat wioks phaced in the horizontal asis of fach.

The Sangrain apparaths was so wak that orrat fomm-

 Was sent to examine into and report upan the deftelc. ami to present a project for romovine them. 110 showed that the samerain reflectors were dafeotive in that the rase of

 distances. He proposid at serios of ist lathys "of whinh the wiek, instearl of heing flat. forms a wylulior of :3 iardudiameter and 3 lines think, luaving atulo thromish the middle for the juasage of air"; these lamps in be plated







 ing in at onmo its atrantaro.









 for the smaller range-lights and for lightshims: bot a row 1]ector is imedticiont and wastufat of light. Littlo more than half the strength of the rays which strike the rellewtor is gixen back. the rost being atosirtual. All thar light thrown
 and mordmees hon litta effert.

On June 2l, 1819, there was apminted to the Freneh lighthousu commoismon a nam. Augnstin Freserl, whose
 winh. and to lomul tho grineiples on which the contruction of lishthome alyaratus reats. Ihe was lod, biy roamon
 Jense, beeanse ghas of ombinary thinknes dones mot absurf moje than metenth of the light which passent through. A lons mande in a sinerle fiece womld be of immense woirht.
 hte says, in his memoir of 1soe," if the Jens wre divitht inta concentric ringe and all the ubeless thicknese of the sumall center lens ame of the sumpmoning rinien were remowid. enongh being laft todulmit of fastining their elgas firmly tugether it maty been that the barallinlina of the rays comian from the light may be obsameal by giving to the surface of each riner a prow curse and inclination." Buffon hat sumgestot this way of wnotructing whinary lenats, but nothing. ardmato have been lone with the jubeit. Comboreat had sugenemal a similar methond of making large
 morance of tha latmers of the others. and to hime is date the homor of finding tha was to whish it was beat suited-the construction of lighthmise aldaratus.

Thure in a limit to the nafinl size of a lons, haternve of the light strikes thet surface of the lene at 1 (h) statill an ande


Fig 9.-Fresumpls apparatus, de simod fir the Cordmand
much of it witl tre hat hy roflationt. formond thonerht of
 to utilize this light, whith wublal have herat loat withome








 \%an the ras whioh wombl be lat below the exatral belt.


 sallitated with mil.
 bueth whith is arat when innoparel with their other ali-


























btmone trinmerne are mblind. The ontsince face of each is

 is erment tha enmlition of hating the angle In Fl one of is. llois lens
comblal be 4xtudnd thenereratally to an intwrinite *atent -H crach sible of the asi-hata-therlit:114e thertfont is intrentenl the rats from the antree if light atrike the inbur fatere of the lofn madrey a rane -tantly devera-inar athatle, what mome of tha light is reflowed froms the
 pa-vilu thromight. Henceafter ratilains a wrand limit



Fig. 12.
 dinptre rime efite the means of doing this. 'These ringe are



 at an anders tust ahome X X
 han lan: it cromont by the fare A13 in a lacizontal dirention if the eross-section he malle with this in vich: All the rase in-- Than in the trianglo A F ( act

 her flar tirat catalioptrie ring. 'Ther nevt rimer would lae so flaced as to catela the next ray almse lo (c, and to sernd it ont horizontally juntabe 13. The
 fure at the intursuetion of $\mathrm{F}^{\prime}$ ( prolonerol ame of a horizontal


Fig. 13. liar through lb. In like manmer a third rime womblatw its smmmit at $\Lambda^{\prime \prime}$, amd so on. A
 tric belt. In small apmatus the lower prisms are located in the whme way an are the upher. ln larer apparatas they
 mand he made ser that the kerper can enter the apparatus in waler for clati it. All phte of tha
 "atil lue rlownel from the ontside.

If all the diop trib amb ratadioptrix ardinns morntionma ahose br ar-vellillal thas. will romilt a firume similar to Fig. 1:. whinh is a serplon "f a formeth-nrdar aphatatho. 'lhe ray-uf ligha after

 prinm follow the dimetions of the heriznman lines. If thiv woctont he* revolved about tha line $\mathrm{F}^{\times} \mathrm{Y}^{\prime}$ it would



 ntad "mantly wor the harizan; in the lather cance there wonlal

 or, as A B C, Fig. 13, be phaced so at to cht olf and atold back the rays goiner to the rixht, the apmanam stambing still, the light would be eabled is rangor-light. If this alparatus with a roflowor and the lamat or the whe with a leame wh wath side. be matle lo pevilu: about a vortio:il axis, so that the heam or beamo of light sumbl fall successively on ractl foint of the horizon, the light is ealled a flashing light. If the light berlistribntedotiantily and comstantly wer the entire herizon the lisht is (*idled a tixed lisht. In the coine of the flashing light it may be dasirable to have the thashes sumened each other more rapilly than those given by the two brams. In sueh cases a part of the lens is taken. For example, if there are to be fonr beams of light, the part of the elevittinn Fig. 14, inclumed bertween the lines $1 B$, A B only woule het "onsidered ; if aight beans be desired, the part betwern $A_{1}$ lan $A_{1}$ ! wonlal be wand; if sixteen beams. the bart betwern $A_{2}$ lis, A. $l_{2}$.

Fitch of these parts is catled a manel. It is easily sem that with every intrease in the mumber of beems the intensity of each is reduced. Each of the four beams has one-half the intensity of either of the two beans and domble that of either of the eight hemms.

In order to turn the apparatus


Fig. 1r.-First-orider holopho tal catadioptric apparatus. arommal it is mountert 1 an a frame. callend a thariot, which rosts on rollers. (wee Fig. 1\%.) This is drivun by a clockwork; In small alparathis the charint inn? rollers are replaced by a piont. The friction 15 great in either cara, ande the motion is slow. One revolation in four minntes is ahmat thr fastest for a first-orabry light. If the interval hetwetn the flashes is to be short a mombur of primels has to be wand: for example, to hatre ar flazh onsere in 15 resonots 16 batmels are rayuiren if at revintion in \& min-

 as lateking stremeth ; hut for in"ratse the strength the maminom uf panels hats to be rellumet. hemee the suman! of matation hate to he incerasem. Šew mu:ans od support atre required for this.
 Anen fomm in the meremery float.

That frama sulpurtinu the ago
 firmb held at two finints. Nitathebel to tho shaft is at cotlar Whith ronts on atme is shatroly [astemend to al -ircular fleat, which is borne by quickilver continml it a eitenlar tromerl which surroumbs the whaft. Fig. Js shows this ammáamont. It is the apparatus mounted wn at pate, I'. which i- aplurtant
 sition by the sleeres (? and I). 'The flatit $\mathrm{l}^{\prime}$ is fistemall sto
curvely to the shaft by the andar K . It in sut mable wf the trongh ' 1 ', in which is plased sulfiefont quickshlor to sup-


Fig. 1s.-Apparatus with four lenses for lightaing light illumination.
port the whole apparatus. It is the elow kwork which canses the plate l' to revolve and carry with it eberythine attatched (1) the shaft.

Lighthmse apparatus is dividul inter sorral orderse fle-


 first-moner lens is the lareost. A liuht of thio oruler is placend
 headland. the entrance to an impontant harbor, to mark

 athalf athd low or ardera are batry wand in anat lighto.
 lights. The fincal lemerth of bath sian af leme in: aft tho





 stat a divergere of tho lab whan wobl with the whinary Jatat



























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 19. Jo this figure "t is the ail-rantwir. 'lhw wick anolpin the Mas II W. Th" lowne coll iff the wick i- itlitwhellot hras tuke. Whind sartiok a stul workinit 10 a
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lant. J. K. Wishata, Whe



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'Thor application of antricit! tor the lightage of lighthomen han

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 artangume at thithimbor light. "hicla is simply an are light Whace imathe of a hora.
The when than y of lightine at

 (hather mad- wore sury gradual. Ather the inswation of the "ata-

 s.4 the full truit of his hature.


Fig. al- Trifformgas light
apharatus. his wotk wat carried on hy his
 lights-i. ©. liehts which shone with a lixed intersity and ilhambate dqually all pats wh the latizon. As it was mani-




 molur lighte af Nauset latach, on the mastorn sinhe of the


 11 alsa ropuine ilouhle muphios of whe wioks, chimucys, and
 it wan prosithe do doway with the cumbersanne system of
 varsiner the mantror of pathels in
 iner the -10ed of revelitiont, it War frailan ta vary lla rablidity

 ty the errat waight of the tughratus prosental at rajpl motion nf rontaliont, aldel this varied ber
 hatinll. 'Thio ropuitad at larase mumber of lla-h batala if tha




 Pollow (atch nthu at inturvith oll





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 |atheratory abal in the field show that an a rule so short a
space as 0003 second is sufficiont to prodnce a diatinct im－ pression on an acnte cye amb that cone－ninth or anp－lenth of a second is sumbient for the average ex．The expuri－ ments have alay shown that the more powerml the light the shorter the time reguired to proluce the impresion．Is a lighthume must be used as al luint on which to tako hearinges it is essential that the light hall heo of sumbeh hat me that the bearings（en be taken．A Frenth nation commiswom qave great attention to this subject dnting at prital of many months．One result ul their work wat that it was perfectly practicable to take hatringe with thathes of me－tomth of is secmat，provided that the interval betwern them was mot mome than fiee secomets．

Thase cansiderations of sharp，quick flathes roming at short intervals led to the deving of the lightning liestas
 Fronch lighthane sorvice．The charateristies of thase lights are an excedingly small divergene of the bethn，at wide orening of the pable，a swift revhution remberel pro－ sible ly the merary loat，and a catefal allowing of the di－ ameter of the buner to the forcal bugth of the has．＂Jowe lights are the most redontilic and sarefnlly wronght out abl－ paratus yet introducel into the lighthome serviof．Is yot they are little known outsile of France，a comatry whicls has always been in the van of liuhthouse impuncment．

The lightning lights are made in many different forms． In some cases there is but whe large lens with in＂n＇ming of $180^{\circ}$ ．A rethector plizecol on the wide of the forths op－ posite the lons jrevms any wante of light．In this ram the apparatus is sidid to be inivalse．There may he a lens of 180 opening on each side of the focus，in which caste the apparatus is bivalve．There and fone panels are sometimes used，as in the ease of the new light at La hew． （lig．EN），where there are finm．The soure of light may to either a lamp，or an efoetric light．The flaw of the halliono appratus，which is liphted be eletricity，is of $2: 0010,000$ camde－power．This power is oltained by a current of 4. volts and 100 amperes．

The subjuet of lighting the alparatin hat ako received
 fity of light．Larre lamps were brought intio us．The number of wick was increased in sume biseses to tem and even twelve．＇Two bijections to these lamp wore fomm to exist．First，the great dianeter of the barner placed so much of the llame gutsile of the focos that much of the light was uselero．secomal，the comparative laek of trans－
 visille at io fiet linames．Furthermore，when the kan

 flanh from the incandownt lamp wa mome than half as




 hurner ；the hash it thew was the forme more compate from having bes divargume
The electric are－lisht hat the domble alsantan of ofrat brilliance and concontration in small spow．In intrintic


 so woll as the light from an al－tinng．The thery indrament is that the elpertric lisht fooson－more lhan rays than the oil lisht，am that then ray are mome radily abormal ly
 －ight of three perins：（1）Tha yollew rat entem into white light to the exumt of os prome，and is the phedomament

 deswoment if this rerery the red light aly
 blu dow mot destry the rend rays．They remam and pro－ dhe their eflew in the renural whoke．（\％）＇The very wreat initial puser of the elaytrie light will almit of muill lass and still loaw the remainge，werer far wreater that that af ＂ather an oil or a gas light．For exmphn：A fomp－hens light－ ning light of at：

 of 12.000 .001 candu－pwer．Igain，when the＇fuestion of the diminution of light by atmouheric atsongtion is consid－ arol it is fomm thit miler all witcumtanom the electric light carries farther tham any other．It is the ilhominat

 I．S．，exarn at the beame at sally llaw and for the lightel booys at the entrance to Now Iork harbir．

At preseht（1894）oil is used almone exclunively in the U＇．S．for lighthomes．The following tahbe miom lata an to apharatus，oil－＊ufply，etc：
 Whes inED is its aplopriate bexs aparatio．

| illcminating afparatis． | NAME MF LAMP． |  | 为 |  | 总 | size ur Wices is |  |  | SNHES |  | EXPEMBTIREGF （1II．JER GCARTFK |  |  |  | $\begin{gathered} \text { ranstap. } \\ \text { THA OF } 1111 . \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Grder． |  |  |  |  | E $\vdots$ $\vdots$ | $\begin{aligned} & \dot{\vdots} \\ & \dot{B} \end{aligned}$ | $\begin{aligned} & =i \\ & i \\ & i \end{aligned}$ | $\begin{aligned} & \stackrel{2}{2} \\ & \stackrel{訁}{z} \end{aligned}$ | $\begin{aligned} & \overline{C x} \\ & \hline \end{aligned}$ | $\begin{aligned} & \dot{8} \\ & = \\ & \hline \end{aligned}$ | $\begin{aligned} & \pm \\ & \Xi \end{aligned}$ | $\frac{5}{5}$ | $\stackrel{y}{幺 幺}$ |  | E | 着 |
| 1st | Funck＇s foat lamp | 51.14 | 8ima | 63.430 | ， | $1{ }^{\prime \prime}$ | $1{ }^{3 / 4}$ | 2？＂ | $33^{3}$ | $+_{10}^{\text {R }}$ | Stis | 18 | 10 | dit | 16．－143． | $\begin{aligned} & \text { and } \\ & \because, 1:+1, \end{aligned}$ |
| 2.1. |  | 163 | ¢，¢391 | 3383 | 3 | $1{ }^{\prime \prime}$ | $113^{\prime \prime}$ | ＂ |  |  | 14： | $13 \%$ | 14.3 | 14： | $4{ }^{4}$ | 6 |
| 3 d | $\because \because$ | 1633 | $2: 510$ | 14， 1194 | 3 | $1^{\prime \prime}$ | 113 | 2．＂ |  |  |  | 13， | 1 E | 145 | 4．41 | \％ |
| 3. | ＂ | ix | 1．620 | 11．200 | $\stackrel{*}{*}$ | ${ }^{\prime \prime}$ | 118 | ． |  |  | $\therefore$ | ${ }_{5} 1$ | 11 | 4 | 号 | ？ |
| 4 th． | Funck lleap lamp． | （\％） | 515 | ことは | 1 | $1 \times$ |  | ．．．． |  |  | 5ht | 411 | 4 | bill | 13 | 20 |
| 5 th． | Funck＇s Luhatar latin． | $3 \times$ | 2nc | 1，2\％（1） | 1 | $11^{3}{ }^{3}{ }^{\prime \prime}$ |  | ．．．． | $\cdots$ |  | $30^{\circ}$ | \％ | 3 | 410 | 10 | $1 \%$ |
| Leqs lantrrn．．． | ＂．$\quad .$. | 32 | 2in |  | ， | $1{ }_{10}$ |  |  |  |  | 2\％ | 发 | 21 | $2 \cdot$ | 110 | 4 |
| No．ltrange tens |  | 沙 | 3.915 |  | ， | $1{ }^{1 / 4}$ |  |  |  |  | 3 | ご | 3 | 41 |  | 134 |
| Locomotive beadight lantern | Funck－Heap lamp | 致 |  |  | 1 | J |  |  |  |  | 55. | 11 | 14 | 11 |  | 208 |
| Tubular tantern ．．．．．．．．．．．． <br> Light－uresell lantern ， |  |  | 1： | $\ldots$ | 1 | ＂＇ |  |  |  |  | （1）： |  | ！ |  | ${ }_{6} 31$ |  |
| Light－wespl lantern | Funck＇s tubular lamp． |  | 1．2\％ |  | 1 | $1{ }_{17}{ }^{3}$ |  | $\ldots$ |  |  | 33 | 3n | 31） | 41 | 10 | 13\％ |
| Old light－vessel latnp with reflector |  | 1 | Tf0 |  | 1 | $1{ }^{*}$ |  |  |  |  | $1!$ | 1.3 | 14： | 241 | 1）．n | Mis |

parency of the flame of atch witk vatand tha litht of that
 were fully testul in Fogland and sontamb，and worn tinally abomonetel in faver of the more compatet thatate of the five wick bmmer．The same obicetion of size fxisis to 1 lan gas－burner of N1r．Wigham．The diatmetor（If inehes）of its flame is far too ereat far any orflatry afparatna．An enor－
 structed for use with this hamer．Ajparation of surb di－

 researeh has shown that the illomanatior quatity of at than


 When testol in a heary fur it was fomml ital the great


Light－pessels．－There are many planew where dights arte













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 the courent altemately, and thas lighte ath fate ont that lamp。





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waterpiotern am! furwal out through the whistle. This Brahion the whata shmml.
The following tahle show the ande lo manation main-

 11 人1. 30, 1493.


Liwhtning (atmowhoric motricity) [deriv. of lighten. Anhh. derik. of light]: the dismptive disharge oceurring Hol well chude and the surfare of the earth, or between two -lomels, whenever sulficient ditiereners of electrical petential atioc. The combetion lntwed lightning and the chectrostatic sparke obtained by artificial means were suspected at a very early diy. but no ilefinite evidence of the identity of the two phenomena was ohamed until about the midde of the +ighteenth century, when l'minamin Franklin undertook experiments for the jurpose of verifying his hypothesis concerning the mature of hghtming. The first actual attempts th "ary wht ramkins suggaion were made in France in
 from the conlector of atmospurital elecIricity which had been erectod at Marly. mar lamis,*

This conthedn was an irun rond 40 fect
 hase and varefully supfrited by mems of silk cords. hi the satme year a still
 iron har !at fed hiol. Wat mety in laris moler the diremton of the maturalist buflin. Sy mam of which parks wore ohtainal. Linh of there whertiments were quickly followed hy franklins: famous "M, rimem with the anctral kite.
 maniontion in then dits. Framkin hat
 the condertion arevel in framer at the time when the matr his reverintht.
Fom the time of Frablian atmos.






 =artan of the aremme With this in--hament it wan fonal that there were at


Fio. 1. all theme indicatios of alectritication of the atmuphere. Volta monditiol de Sansures apparatus hy attivhlige to the phint a shon-hurning matel, ats shown


in Fig. 1. The indicator used with these eollomors was simply an Electrosimpe (q. r.) of the type devised by lealtior. Improvements amo de sausures methon worn made by Dellmam, Lamont, and others: bnt all malem staly of at-



Fug. 2. ricity demomes "unn the much more refined methond devised by land kelvin (Nir Willi:m Thomston), whase alparatus has been und at the Kens ohservatory sine 1 wht. Kolvin's aldaratus comsints of a water - Iropting collector (Fig. 2) and the Thomson quadrant electrometer. The former instrument consists of a metallio resorvoir. carefully insulated from the earth, with a long mose or spout. The apparatus is so placed that the end of this spont extends into the open air, the electrification of which is to be investigated. The succession of drops issuing from the water-dropper serves to charge the ruservoir. The electrometer, which is maintained in a constant condition of sensitiveness by means of a water-battery, or other convenient source of electromotive force is used to measure the differences of potential between the eollector and the earth, and affords an indieation of the potential of the atmosphere.

The Kew observations, together with those mane at the meteorologieal observatory on Mt. Vesuvius, by Quetelet in Brussels, by Lamont in Munich, and by Dellmann, in kreuz-



 of the atmondure atul 1 he wather to thathe the indiations of





 interestine farts, for the mont gart montimathry of those

 failure to discowar an obsions and simple relation botwen the thactuations in the eleet riad enmention of the at moselhere and the weather, the (iowerment abomanen] the work. Of
 the following are lurhath the iment important: (1) A cril-
 trification at all times- (2) The eletritication is somertmes
 cal comdition aceonmanios statility of weathor. (4) Parions of storm are almot always acermpmied ber very marked fluctuations in the elertrisal putential in tho atmoswore. (5) Nothing correapmline to the miformity whersed over Wide ranges of territory in the romede of the thations of the magnetic comlition of the earth is met with in tha manfarison of the observatime at the barious stations for the study of atmespheric medtricits.

That there is connection between weather hinturbanees and the electrical condition of the atmonhern sems to lre well potahlished, tont it is mulikely that infinite result will be attained until we have long-continued revorls from a


Fig. 3.- Form of alectrometer useil in the U.S. experiments on atmospherme elec. tricity, 1884-88.
naeh, afford data coneerning the electrieal state of the atmosphere in various parts of Europe for a period of many years. In the U.S. Ir. Wislizenus began observations at st. Louis in 1861. and maintained a eontinuous record for eleven years. The work of these ub)servers seemed to show a distinct eonneetion betweer the electrical state of the atmosphere and the weather: but it was erident from the eonltieting character of the data that the problem must be attaeked in a more systematie manmer. In 1 sel the U.S. weather bureau, under the direction of 1'ruf. 'l'. (. Memfershall, and with the co-operation of Johus Ilophins, llarvard,


FlG 4

 tending those fluctuatims in the veretriticution of the atmos-














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 kin．alms．the＂arth，tho＂ffects produced where lightaing atrikus are maty expliather
＇Thu mast imjertatht atsammes in the study of lightning which have hemande in romat times are dhe to the stmaty


 wif the dian hatere，and in many ways the very close relation－ Whip lulwarn lightamer hashos and the sparks artitionally



 ning．（ilnombar ow ball lightuine．imbed，is something the


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 abman motinely duled all promee olservation，so math so
that its very existence has frequently been questioned. The writer has never seen a photurbaph which cumtamsanythine which contel be tairly classed as ball-linhtning, alhough such photorpaphs are sail] to have been taken.

Photorraphs of hirhtning fropuently show phomomena
 frontispiece of loolgees book, shows a phenemanom known as the black flash. It will be seen that of the several linchateres recorled upon this phate, one, instead of beiner white, is densely hack. 'This result is, however, undonhtedly bhe ter an idtusymerasy of the silver salts, well known to photugraphers. It is a famibial fact that when the photographic tilm is over-exposed there occurs a reversal. I'mber sueth tircume stance one obtains, uph derelnping the tilm, or pative instearl of a negative pieture of the inage in the combera. The simplest explanation, and the one which seems must furobable, of the hature of the black llath in jhetogrables of lightning is that certain flashenare of such extrome atinic intensity that ernion the very short interval during which the exposure lasts they produce this reversal. The writer exposet it sensitise phate to the chectric are-light for the purpose of illustrating this effect, to which end the expunure for the mightest part of the image was iner-timed. The result is shown in Fig. s. in which it will he seen that the central part of the are itself, and the crater of the positive carbon, and the if of the negative carbon, aprear black instemof whitr, while the less brilliantly incandescent regions surrombing these central portions are shown in the proper manner. The inspection of any photograph of lightning flashes will convince one that there is very great range of intensitios. diven this range, reversal by orer-exposure is a pecoliarity of the photugraphie process which must be expected.
Fig. 9 shows another interesting phenomenon, the existence of which has been established by means of photorraphy. It is what is known as the multiple flash. Owing topersistence of vision, the evidence of the rye is scarely to le taken


Fig. 9. - The multiple flash (from a photograph by Ir. If. S Piffard)
concerning such a phenomenon, but the photographice plate
 that the mintiple fach is simply an methatory limeharen hetween cloud and earth. The question whethre lishtming is ever oseillatory is a mooted no ; but the camora has furnished rabuable evidence in the atlirmative. ! 'hotomaphs of scenery taken from the window of a rablly mowing train daringe a thundmestorm at night, fur instaneep, have shown a suicession of imazes slightly displatent throumh equal distance with reference to one another upent the plate. Such an effect conld be produced only ly an urillatory dis-
charge. It has buent luh! hy the "proments of thin theory


 have shown, hawerer. that the varions elamorntary distlalyerg which conien after the pilat arark do mot all follow the same bithe Fig. 10 is fromen such a photographo mande maler the dirertion of the writer in 15:t3. The photugraph slows ane path of rery great intornsity and sereral uthers mit so wellmarkell. Prof. Trowbridat, of llarvar! College, also has shown in the conrse of an extended investigation that in the case of the oncillattory suark the first two wo three discharges necemr

 lifinal owellatiry discharge in
whind several histinct phiths are Whith several histinct phills are
shown. along the same path as the gilot, but that the sulsequent ones frapmently take other pathis. It is probable that int the casw of the multiphe thash wo have to do with an uscillatory discharge in which the bath followed is contimally chanming.
There have hen many thenrios promulgatma with reference to the nature of lightaing to toneth unan which would exceorl the limits of this article. Four dinalnsion of these. and of mumerous other mathers rebating to this sulaject, the reader is referred to the works of l'hanté am! Luman. already cited.
E. L. Nifhuls.

Lightuing-arrester (in appled ebocturity) : a device for protecting dynamo-etectric machinory, temedhemes, and other apparatus connerted with systems of outhoor wires, from the ravages of lightning.

At times of electrical disturhane of the atmoxplere, such apparatus as the above is partiondarly likely to suffer hecause its metal parts afford an easy bith to the eartla from a network of exposed wires. The quantity of electricity passing to eartli through such channels at the timse ut thmo derstorms is often very much the large for the tarbying capacity of the wires and other garts of the aplatatu-whinh haprens to form a fortion of its path. and a mollownt amount of heat will therefore be wemerntal to deatray the latter. The possibility of protetting suth instrmment- from the effects of lightninge depumds largely "rann the fact that they buscess self-imbetion. An altmontive path maty there-
 inclundes an air-space. Tusteaty currente this fath will be of infinite reximance: bat to currents of a raphlly thetuatine elaracter. the path afforted he the tortuon- wimdinas of dynamo coils, ete.. offers a preather imperamber than blows
 pith. haping across the ar-qup in the form of a blarh, innd in this way the ma"hine or instrument is relieval from carrying an excossive smonnt of current to the earth.
Sometimes jorallell platise are used in lightnimerarresters for the brotection of a telephemo cirenit, as shown in Fig. 1. In the diagram, 1 is the line wire.

Fig. 1.


 the circuit to a minimam.

 Abotion. For steady currenta, or asen for the unhalatory




 such air-gads in multiple circuit, at in lit. ?and hy using






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 metalsate theme which are remily uxidizet，formine haty



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 of a liunt on alternative fath thathe of the platare of











E．L．Ntanns．

## 

































 Gomhare is struck ly firhtuing．When a molding is so situated as to form a farion of the path of the main dis－

 ning－rats have to dral with the main dimenge are，how－
 stanees in whith finithings lie in the meghanthoud of the path of diecharge wishont forming a portan of it are much more mumernes than these in which the thath passes directly through the stumber itself．For the protection of haidings from thes semmary edfects the eflieacy of lightningrods is unquestiomalle，and sa far as this sort of protection is con－ armed．ertain getheral statements as their constration mav he lail doma：

First．The disxiputing actoon of points is rery small．It
 the use of points constructed of such metals as phatimum and whll is a usedess rapense．
Sifombl．The lower ent of the systems of rods should be well grometre．In haidings containing water－pipes a satis－ fatory commed wion whe earth can be obnined by athed－ ing the system of lightning－enductors to these pipes．

Third．fius－pips．should not be used as a means of estab－ lishery＂tomection with the eroth．Gas－pipes，when con－ meted with lightning－ruls in such a way as to form a part of the path to the earth，are likely to cuse fires by the igni－ tion of the ir contents at any point where there is a leak．
fourth．． $1 / 1$ purtions of the structure conlaining consid－ ruhbe messes of methl，such as the sheathing of roofs，and
 should tar ser conmected by allaching them to the lightaing－ rols．Whe of the chat sharces of danger from the secondary Iftets of lightimes consits in the induring of heavy clec－ trowatic＂harges unon the surface of all such conducting bendios ac may insmated．In the production of these in－
 forerel tor ark a path to the ground；and if an unbroken path of gonl conductivity is alforden，it will he carried insty without the probuction of sparks and without the dan－ gor of tire． $1 f$ ，however，the path is interrupted here and there tig air－paces or hy other had conducting material，a arion of oparks will hat across these spaces．Such sparks are fromanty the camse of sorions damare．
fifth．ts regurels the matrial of which lightning－rods stmuill be mudl．The metel of which they are constructed is of lisse impurtoucp than the form．Of course，metals readily finither，rulh as lat，are not to be sthected）and since light－ ning－rembare rexped to the weather，it is desirable to have them constractod of metals which will he fromanent．Or－ dinarily the chace limits itself to coppre and iron：and iron is，on the whole probably the best arailable material．It is true that curp＂r pusesses a much higher combuctivity than irnti，hin，as has hern puintel ont by Latge in his volume on lishtuins－xhductur．hish comductivity is mot altogether a devirable gatity in the lightningrond．Formany years there Was a controwary betwen those who hed that the essen－ tial rharactri－tie of hightning－rods was a sulficient cross－ sectimblaren．and that the shape of the cross－section was a matter of indifternere ：and those，on the other hand，who Held that the rin！should the comstrueted so as to offer a large surfice：．It is mow purfectly wede established that sud－ hon surge of current．such as pase ower lightning－rods at the time of diandrge are not capable of being conducted save by the outamot havers of the metal．This fact is ac－ manted for ly the siffimbution of the material．Owing to this indurfiwe action，which contimes the current to the mathile，tuthes with thin walls are as good arriers of light－ nime a wodid rose of the same damolor，while a hroad strip or hap＂wighting th＂sama per linar foot as a rod or tube， is murda lather than cither．
 situoture which they ere tutombed to protect is distinctly
 mund to conver a dim hare from the shy to the earth with－

 ing italf whinh are comduchers of encericity with the carth， of an to alhw the tranfar of edeetricity mater the tre－
 wht the prodnalinn if dangeroms sparks．As has already
been imsiatme the attempt to protert in the wase of the direct dischatres is probably futile in the ofetat majonity of instances: and at any rate the interemition of an mof or
 of surh it diseharge as that which oremers when exehabre takesplaw hot worn varth amrloky.
berenth. Dightming-rods should be us mody struight us

 to hap anrose betweer the interveninis portions of the cont ductur inalead of gring aromat throuert the motal. . Ilthoush a metallie lone will affore a pathof intinitely better
 ever rapid thathations of electromotive form take placo.

The desirability or undeniratility of attanhine lightningrods to builhings is a guestion connerning whirh it would be clilicult to lay down ang general male. lat tra cise of ships at sea carrying womben matso or spats there can bue no
 ning. In the case, on the other hand. of at billinige sitnatell ujon some stratum which in itself affords insalation from the surroumbing requas of the earth's surfore-and it may be noted that localities are limpunty fonmd where it is difficult to obtain a rround commetion sulliciently goma to serve for telephonic pmrpowes-it is a serions piasizun whether a system of metallic conmactors comberting the honse with the earth would be a sumee of protection or of added danger.
The development of extensire ststems of overhand wires for telejhone and wectric-lighting surviue has greatly mundified the problem of protection from lightniner, and has compelled the introduetion of apparatus quite ats inpurtant as the lightniner-mol. This apmatus is the lightninir-arrester, the object of which is to afford a path to earth for tho elaretrie charges which gather by induction upon such srotems of wires. The function of the lightning-arrester is primarily to protect the instruments (telephones, lynamon, molors, etc.) which are commected with the outloor wires, but it also protects against fire the huldings which the wires anter. "The system of wires pertaining to a telebhone exehange, for exmmple, fathers eharges of electricity over a wibe aroaz. and the discharge to earth is likely to occur through the gromad wire of come building remote from the distumane. A propery arranged hightning-arrester will brevent this hy keeping the potential of the entire system undur control. dimhtning-rols are ordinarily brought into service only at rare intervals: the lightning-arrester. on acenunt of the extended network expesed to the inductive elfects of thamerclouds. will be in action with nearly every gassing sturn. see Anderson, Lightning-ronductors; Lodge, Lafhhmingconductors and Lightuing-guedrds.
E. I. NíHOL.

Ligne, Jeqũ, Charles Joseph, Prince of: soldier: b. in Brassels, May 12, 173.5; was descended from one of the wealhiest ant most powerful lielgian families: enterial the Austrian army in 1 Fi.s. dintinguished himself in the sewn Years' war, and commanded the ramguard in thr bavarian war of suecession. Inring the reish of Joseph Il. he hadel the highest military and diplomatic positions, and the eles gance of his mamers and the brilliancy of bis contrersation
 pold he frell into disfaror. jartly on account of his son's participation in the belaian inamrection ( 1790 ), and though Francis I. made him field-marshal in has he never pogained his influence in the statt. In the lattor your- of lis life he was occupied in literary parsuits. 1). in Vionnat Dec. 13, 1814. Of his Melanipes militaires, lithrairs th senlimentares (3t vols., 17!.j-1811), Malte-larma ham given a selection. (Eurres chorisies, in ? vols. lliv letters am] memoirs have considerable historital interest.

Lignine [from lat, lig'mum, wood]: a synongm of ("ELLulose (q. 2.).

Lig'nite [from Lat. ligmm, whot. ('f. Fr. lignite]: the name orifinally given tobitumenized wowd. but now apjlied to most coals whioh oecur in the mona remat senhurimal formations; the term is therefore synonymome with hrown
 nite formmar of compmation, but hitierent sperimoms varg
 changed regetable fiber above and trme eabl below. lignites or brown emals are foumd ehiedy in the (rataromsaml 'lartiary formations, durethey wecerr in depuaits whirh rival in area and thickness the cond-hals of the Carkmifurms system. In general terms, it may be said that the liznites be-



 harial. This fromes ramblas in the fromation of-1, peat~:







 tation that which hat bern durivel from the doenmanation
 atamen-is callen jorat.
The monde of formation of the wpoat hole of worallod lier


 ous ace. In some instances they are Mndmalan lis strata of

 that they have ocommon origin and history. exsept that in the lioniter that history has mot randonl as tat as in the
 bave hos bocal canses buen whanemd for the mandition cor-


 of hituminous coal, and hy the anthraniton of Crested
 last two cases heds af (rotareoms lienitu haw laten, by local voloanic action, convortiol into anthracite, as bright.
 of earmonized vegetation formml in tha 'l'optiary and (reta-
 of thr irvat areas underlain hy thene formations comme into this category.
It haphors that the most important degosits of minaral fuel in Dusupe and Ea*lern North Amoricanare foumd in the ("artmoniferous systems, hut it is mot known that any inpurfant hevesita of true eoal wist in other parts of the world. Bo far as we know, all the great cobl-fielde of ('hina, India. Bornes, and Western Nurth Smericat, are of Nowzoice or Tertiary atre. I fepssits of lignite ary alon known to exist in Gireonlam, Arctic Amorioa, and in ('ontrald and south
 rule considerably lose than that of true anals. "hins is

 and] 10 tu 16 per cent. of watcr. 'Their hoatime power is therefore wsually from one-hall ta twothinds that of hithminome coal. 'The different inerodiont-montimed some-
 which probably contributes nothing to the heatian fuwar, the watureven abowhing sume portion of tha. entrory ot the ("mmbutible material in its valonization. The caluriffe
 that of the best coals, in whicla the hadrogen is mainly neth-

 Ghond he sad. however, that this is only a menetal male. The calarific jower of some of the ('urlomifermis coals of
 lisnite reateh and evan prase this junht. Tha physical charantor of lisnitos also frequently impairs thair conmomice vatue. They are u-ually sump what temalir, atm the wand in mininer and tranoputing thom is grastar than in the bitn-
 quontly cn exposure fall into a moltitule uf ancolar fraco ments. It marcly halduens that they aro coupable of problac-
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 chiefly in the former; aml althanifl their extont and value

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 layere of at beper quality．inturetrathond with thoe that are －haty amb impure．＇The lignite teak of Colomato and IV yo

 far mon fandian buthery It is not know hew hare an





 phate and ate extedively minel．The mont important mines now worked are lanated at Trinitad．Camm＇ity．

 If conamand for hannotive on the ralway．The lisuiten
































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 bunferous conds of the Raturn Staters．

The table of analyw here printed will anow the eomposi－ tim of typhal examples of the lignition of the western por－ tion of dimerten．
The material callent int so haredy und for ornaments，is
 at Whithe，England．Lignite of similar haracteroceurs in
 to the lingrish jot．
levised ley C＇uarles Kircmiofr．
Lig＇num LRh＇dimu［Mond，Lat．Litcr．．rosewood；Lat．lig－
 ishand rownom（an forewomb，which yidds the so－called oil of rhatimm：ako for the wood of Amyris balsamitera，a tree of the Wiet lowhes．whidh yidhs an oil usel as a substi－ thate for that jua mentioned．＂The mame is also given to other frauramt wents．

## hismum Vide：See（icamerm

Lisoniar：fown：Noble eo．Ind．（for location of county， su wap of lintiana．ref．？－F）：in the lilkhart river，and the
 hart， 10 miles W．of Toledo．！．It is in an agricultural re－ erim，has wermal manufactories，ship large quantities of Erain and fremere an！has $?$ private hanks and 2 weekly m．wspaters．l＇op．（1850）2．010：（1840）2．195．

Liror＇：a state town and isthmus of the Malay Penin－ sula．The tate is fembatory to siam．lies between $\boldsymbol{i}^{\circ}$ and $9^{\circ}$ N ．lat．，and extembs across the peninsula：area， 1 z， 000 sq ． miles：pry abme 150，000，three－quarters Siamese，the rest Malays，（hinese，and the ahorimines of the forests．The conniry is wemerally mashy，and the forest growths gigan－ tic．The pincipal productins are rice，pepper，ratans dye－ wools，irory，tin，and goh．The town and capital is in lat， s ost N．，anar the east const，on a woded phan，near the month of a small stream，forming a gooll harbor．Pop． ahmat 10.0 orf．The inthmus forms the nothern part of the －ate：it has hore heen a favorite phace for crosing the pen－ insula．bistance 80 milos．

Mark 11. llagringtos．
Lieno＇ri，cimithaforo Maria．de：priest ；b，in Naples，
 when sixtem gars uld：entered a mituous congregation in
 the rolitions intruet ion of the por：founded in 1783，at Villa scala，the urder of Renmptonists（q．©．），which re－ forma jablat apobation in 154！when diguri was con－ firmed an itosurrion－wneral；deelined the arehbishopric of Pahomo：wa lishof of sant Agatha $1762-85$ ，when he re－ sitmond and dowiol himedf to thenlogical stulies and writ－ ine civing uy well his gemeralip of the Remmporists．

 a forpor of the（hareh in 15：S．Amone his many works aro

 prohabilist，temehing that in a halane of ombins that whiels in the lens safo may br．followod powided it he as probable， or marly an promble，a its onfusite．Ite was acosed by the riveriate of hanitur too murla the she favorable to lib－
 him．moral thongy may bir bithr positive，speculative，

 funition of the primejher of matal theolow，lat insists

 mimipho to case ral or masinary：Hix comphew works

 （anmper in latian，Fremhand arman by the liedrmptor


Liguorians: See ledemptorists.
Ligurria: in ancient gengraphy, a district of Sorthern Italy; the land of the Ligures, the bommaries of which were not accmately defined until the time of Anmotns. Aremed iner to his division of laty, it comprised the territory from the Ligarian Sea across the Maritinae Alps the Padme (Po) in the N., and from the Varns in the Wr. to the Macta in the E . When first mentionel in history, the ligures ofcupied a much larger tersitory, extending far into (iand, on the western side of the Rhone. They were a warlike, 中uickwitted, and enterpising people, whese origin and relations are catirely unknown. In the perion betwen the first and secom I'unic wars the first encomater tom phace between them and the Romans, and about 12\% B.e. they were wholly subjugated. liguria formed the nuelens of the Roman province of Gaul. The name was renewed hy Napoleon, Jume 6, 120\%, when the repablic of (ienoa was transtormed into the higurian republic. but the absuman of the little state in the French empire, June 4, Isho, destroyn! its antonomy, and its territory became for a time the thee fremed departments of Apemin, Genoa, and Montenothe.

Li llung-Chang, lee-hoong-chang: Chinnse statesman 1. about 1823 (accorting to some anthorities 1819 ) in the Hofei district, in the province of Ngan-hwiy: showed mousual talent as a stment, and attained the ilegree of (hin Son (the third) in 18t7. He was alterward appointed a compiter of the second class in the Hanlin Collegr, and in 18.90 attel as compler in the imperial printing-office. During the Taping rebellion lue servel with honor, rose rambly in rank, and conducted the final campagn that crushed the revolt. He was equally successful against the Nientei rebeds, whom be completely overthrew in the summer of hetis. In $18: 0$ he was appointed Viceroy of Chihli and made sontor Grand secretary of state. His policy has been liherat and progressive. In the face of opposition he has brought about the introduction of the telegraph, the reorganizing of the army on European models, the establishment of duekyards and arsenats, and prevaided upon the Gowemment to permit the construction of railways. In his forejun relations le has worked steadily for peace, and by skillful diplomacy has generally contrived to secure it without sacrificing the interests or honor of his country. In $189 \%$ he represented the Emperor of China at the coronation of the czar, and on his way back to China visited the principal countries of Europe and the U.S... and was well receivel everywhere. Note that $L i$ is the surmame, and is in Chinese custom invariably placed before the given name Hing-('hong. See Name.

Lilac [from Arab. lilah, from P'ers. lilet, nelhej, indigoplant; ef. liluk, miluh, bluish]: the fopular mame of shrubs of the genus Syringu, family Oleacer. The best known is the common lilae, S. melyaris, a native of Central Asia, half naturalized in Einrope and the [.S. lis early-hbommer flowers are commonly of the tint called lilue, but often are white or dark purpe. S. persicu, S. chmensis. with other species and their lybrids, are common in cultivation. Thoir bark has decided febrifugal powers.

Lillourne, Joms: political agitator; b. at Thickney Puncharden, Durdam, Congland, in 161s: imbibet in youth opinions extremely hostile to the Church of England, and having circulated pamphlets against the bishops, was "ondemned in 16iss to pay 4500 , to receive 500 la hes, to stamd in the pillory, and be remanded to prison. In 1641 he meniven from the Long Parliment a handsme compmation ( 5 , 0, 0n) for his suffermgs. Ile tought in the Parlimmentary army at Edgehill, Brenitord, and Marston Morar, and was thrown into Newgate for libeling the l'resbyterians. He afterwarl aided in organizing the Levelers ( $\dot{q} \cdot 0$ ) : accused (romwell and 1 reton of designs upon the soveroignty: was in 16.49 tried for sedition and acquitted; took refug in Holland; returned in 16.53 ; joined the Quakers; died in 16.5 .

Lilia'reae: the laly Famby (q. $\quad$.) 。
Liliencron, Ronncs, Freiherr ron: b. at IMin, Itolstem, Dee. 8,1830 ; studied theology, jurisprulent, and German philology at Berlin and Kide : becane profincor at Tema in 18.20; went to Meiningen in 1s5.5, and bename aditor-inchief of the Allgentine Deltsche Bigyraphif in 186:. Il is researches are devoted chictly to the hivtory of the pophar song and its musie, the results of which are enthutient in the large critical edition of Die hist. Wolkslieder der Heutschen rom 13-16 Jahrhundert (1865-69), and in the expuisite little volume Deutsches Leben im Volkslied (18st).

Julius Goebel.



 when hine kalakata left Hawaii for tho (', S., and onn after his reall in san francine she was powtamed ynem,

 of the crown. 'Though foreal by the apmontion to deant from these attemets, frar of their renewal and lianationtion
 by a smalf portion of the phblation, combtane haifly of the [". S. element. A provisional pownmant was therise
 the other hand, alleging interferenee on the part of tho $\left[^{2}\right.$. A mimistre on behalf of the rexolntionists, ragnested the and of that (wosermant in restoring her to the thente. Simafler his inaguration, Prosident Cleveland whalrow from the scmate the ammesation treaty which hat beral mentiatemb
 mediate hetween the provisional gowrmmont and the quiven, with a view to her restomation to the thrones, ami a mablie
 of her supporters in tann., 1 s95, she was arromed as an aecomplice. Some lays later he remoment her right to the throne, but was triet and sentenced to five years imprionto-
 tember of the same bear, and in lece, Nem, visited the [..s.

 prising some of the commone-t and mont ralned if barly urnamental bulbiferons blants. natives of the northern teniperate zane. several are indigenoms the the Co., the more showy and conmon ones boing Sillum fhiludelphirum, with an mpight flower, aml $L$. comodrtiss and $L$. sumerbunt. with noditige ones: these orange and orange-ret. lidated species of California are now coming into coltivation, a well as one or two with white or rosenolomed hlasoms. $L$ conditum. the common white lily of the gathens. cane from the Levant and Cancasus. The large and chuice fapanese lilies, white or fartly so, came from $L$. longitlormon, with long and narrow flowers, and $L$. j"pmienm, L. speciosnm. and $h$. atretum, with very hroal tud upen ones. In the scarlet-flowered $L$. chalcedonionm, abmandins in Palestine. we "behola the lilies of the tiell " of semplate. The ficer and bulblet-hearing lilies of enltivation, all natives of the Ohl Work, and producing bablets in the axils of the leaves belong to $L$. tigrinum, I. cropetum, and L. bulbeferum. the last two known ly their erect flowers.
('. E. I\%.
Lille or Liste (Flem. Reyssel): the capital of the department of Le Sord, France: is simated in a fertile mat wellcultivated plain on the Sende and momunicates by canals and ralways with the sa and all the latre commerem phaces of Nurthern France and holsiam (sce map of Frames. ref. 1-F). It is the headeartemo of the thim malitary dirian, and is one of the stronges fortremon of lumpe, Its fortifiations were erected in the elewnh sentury: thay Were thonghly reconstracted by Vimban. Sime ixmamparts on the south side have been lemolinhed, ami the town now includes the old commanes of Eipharmes, Wazemmes, and Howlins-Lille. 'Phe city is well huilt, with lional and regular strects and mumerous siquites. It has animersity, a lyenm, an academy of tirsjon with a mathatend antertion of drawing-anong which art -aby hadmel ambanat ? 0 ,
 chetions and many scientitie and ednationad institutions. Its principal imporane however. it derive from ita manfactures. Bucle thax is grown in the wionty, athe the lame manfactures of hille are very extensive: the whale meth-

 entablinhments are in opreation. The twanco-manfantary
 Beetrout sugar. raperad oil, ghoses and gunpmender are alow manufactured in large quathtites. and an extmane trade is carried ons. hille was fonded in the ninth womery helunged atternately to France or to the (ounto of Flander, anme mot the foscesion of the houne of laremaly at the ethe of the fourteenth contury, lased from burgumy lin Du-tria and
 time it has been a French city. In 15se the Antrimalwmbarded the city for nime days amblingte, hat had tinally to raise the stege. P'up. (1891) 160,966; (1-16) 216, 2.6.
I.illy. Jun - lan



 $1_{1} \operatorname{lo}$
 Wrete ath 「.



 of varimi- other lay-like How.e bronging on the athe "t




 mataly horbactats, am! with the six divisims of the perianth indored alike and the lasso- parallel-wined: hat th all how charaders there are exeptims. Many ham hathe.









 natumat phat of the oflers an ator the hyatinth and the








 imprrial. Thane if suills are likewi-e wory ation, white



 fibur is lew Zoaland llax. froen the leave of Pherminn





 task en Ifrim. It the Ball of the Fhaman wime it was


Lily-uf the-Valley : a phan of Firme and A-a, aben








 The woturn furthon in the doparment has in the tivitil-




 Int thene a laren jurthat of the imbationto are gathered.













 ably : 24i114

11дкиек 11. smitu.
Lima [-pan, cormption of Quichan rimec. an aracle: in
 tad of Perin and of the department of Lima; at the head of a phan forming a fatema where the riwer limace encrges from the -purn of the Combleran: ind fert abwe the sea: 6 mile from ite pre of ('man on the lacitic; in lat. $12^{\circ} \mathbf{2}^{2}$
 i-Io. Ilisurteally it is the most mantant city in south Amoriea, It wat fomultal in dan., 1535, by Franciseo Pramot, whe called it C'matal the has heyes (City of the Kine-t. perablay in allasion to the femat of the Magi Jan. 6: him anm wan the allicial one during two centuries. It was the erat of the Viceross of Perm. Wha, daring most of the connial proml. ruled nearly all of Spanish South America: hamenent was the mot inagnifieent in America, and attractud all the leaming and riche of the continent; the Ardhatho of hima was the mot powerful prelate in Americat and here the religinns ordors and athe Inquisition had their monders Taken leysan Martin duly 9,1821 , it remained in the hambe of the patricts with shaght interruptimb during the war for independero. It has always been an impertan fuint during the Pernvinn civil wars, its posarsimemembly indicatime the party when is in power. That cal ital of the leru-binivian eqnfulemation $1836-38$, it wat taken in the latter year ly the Chilans, minted with Camana and wher rewhitimists. It was again ocenpied hy the 'hiliams after several severe hathe Jan, 17. 1881, and wain holl ly than matil Oet ge. INS: during this period arat daman was dobe to the eity, am expecially to public instintions. lima has suffered greatly at intervals from (arthoman... it was marly destroyed by the great shock of

 hat- always hem an whathent phase and unter the viceras there were frequent severe findelace. due to bat samitary arransoments. The city now has an excellent system
 hat intemithent fevers and dyentery are still prevalent. (Wing tw the proximity of the mombins the temperature is low, the mean from olume to Nowember being only $564^{\circ}$ F': the remamine monthe are warmer (maximmo ste and are charactorizal lay har spells of thick mist, pecularly traing tol wath lanis: bat rains are rare. Formerly the aty indudad about 8 ar. miles on the southwest side of the Riman", with a suburh, sin hazaro acoos ther river: it was surpmoded by aldue walls, which were beved in 18.0 and rephacel by time buharas: hut thene were destroyed durine tho (linilan invarion. The limate is crused by three bridens. "flue city is regularly lail] out, but has marrow streational videwalks: there are thirty-thre public sonares, many of them handmely mhond with atatues and fountamis. Among the momont ame a fine equestran statue of Bedicar (homare): the marble gromp of coblumbus discover-

 Aral, on the llaza llayor, i- cone of the harest and timest in
 quabe of $1: 16$ and whilt int the whombitions. Felevated of a marha. Herrace, it has the hanal two thwers of excepthanal hoidhand a !urtal in Marishaty. The oher parts. madnding fillare of red marhe and statues in miches, are finaly wromgh: lat stme if the molion additions are in



 "nty uther -hareher, many of them of ermat interent but
 of the Chur h tratime was given to the (avemment daring



monthly. The University of Nan Marens is the mhas in America, having been frumbed in 1551; it now inclules the College of sian Carlos (fumbed 17ro), where mont of the better class of Permbian yonthare educated. Thare are, berides, several national colleges (answering to high sommols in the U. S.), medical schow, a mining and engineoping sehow, naval and military institute, ete. dirls are wery entrally educated in moneries, of which thare are eight of tom. 'This national library was noxt to that of Rionde dane im, the finest in south America, am particularly rich in liantorioal bums and mannseripts relating to Pern; it was sarked hy the Chilians in 1881, and, though it was reprened in 1884. only a small part of its priceless treasures has been reemarent
 000 , has 700 beds, and is perhaps the finest rditioe in the city. The exposition lailding, a kind of national mandm. ereeted in $187^{2}$, is a wery hamtsome edifice, and is surwombed hy a beantifnl pleasure-gromm, now the fiverite promenade. Another fine promenate is the Alameda, in the sam fazaro suburb; and there is a good botanical garden and a zonhenieal garden in the outkirts. The Pratheon or prinequal cemetery is noted for its numerous fine marble monments. The houses of Lima are generally made of sum-dried hrides, a suffieiently durable material in this dry climate; and the older ones have the second story projecting over the sidpwalk: the hetter class are firnished with richness and taste. Clubs are numerons and popular. The suedety of Lima is noted thromerla Spanish America for intelligence and culture Many of the well-todo families have re-idences at Miraflores by the seashore, a beautiful phace which was destruyd during the Chilian invacion, but has been rebuilt; this ind Chorillos, a farorite hathing-place, are connected with the capital by railway. The ralway from (allao is contimed in the Oroyo ronte, destined to oum up, Western Pern; ind a line runs northward along the coast. Lima is the com-
 poses, a portion of it : the mest impurtant exports are silver, groh, vieuina wool, hides, sugar, cotton, and cinchona. Popmlation (1801) estimated at 103,550, which is probably lelow the truth. Paz Suhan (18s⿱艹) , rejecting the immerteet echsus of 1876, chamed a poputation of over 200,000. Sere Narkhan, Cuzco and Limu; Fuentes, Estuthsticu de Lime ; Vincent, Aromed amb About Soulh America: Childs. Spanish Americrn Republics.

Meriert Il. Smith.
Lima: village; hivingston co., N. Y. (fur foration of county, see map, of New Yotk. ref. 5 -D) ; on the Limat and Honenye Falls Railroad: 4 miles s. of llmenye Falls, 18 miles S. of Rohester. It is in an agricultural region; contains 4 churehes, Genese Wesleyan seminary, $\sim$ district selools, and a weekly newspaper : and hat coal and hmber gards, waron amt blacksmiths" slops, aml a machine--hop. Pop. ( 1880 ) 1.8is; ( 1890 ) 1,003; (1s93) est imatert. 1.010.

Ebitor af " liechiner."
Lima: city : eapital of Ahen co.. O. (fir locatiom of
 the C'in., Dam, ant Iayton, the Erie, the Lake E. and W. and the Pemn. ralway; 130 miles N. by E. wl Cimomati. It is the center of the grat ohio petrolem and matural-quas fiedds, and since 18s., when pertromon was first diswsemed in the eity, it has beeme one of the largen fatrohnm ship-ping-points in the commry. It hats one of the largest witrefineries in the world, the shops of the lake We and W . and the Cin., Ham. and lobyton railways and mandfactums of straw-board, erectase fillers, amd of tonds and machinery used in the petrolem and wood-working intuatrios. There
 state bank with capitat of S.0000, a private bank, ant ?
 15. 181.



 fromb: a family of gasteropulnus mallu-k of the curder Pulmonte, disitneriehed by the dongated semi-eylindri-

 the shell, whin is conceraled ly the manthe: the raphatory orifiee near the right posterion margin of that manta' : the
 ribless: the teath of the pinlalit in mumenus rows. 'The family thus defined embraes the well-known dure uf the
 from Europe-riz, Limex ayrestis and J., thans. 'These


 imbigeman form which in whely distributel in the ['. S. Limus campastris. linney.
 Baron, (comot, Marquis, and from Mar. ed, 1atio, Dukp if


 gent in 1831. The low entored the army as andet when only five years ohl, staidecl in the military andems, and in 1 tos made his tirst empaign in bohia. In, fomght in Cruguay 1805-24 : wan promoted th hrigadirr ; was pesident of Maranha Febs, 1sto, to May, 12.t1, mbluing it formidalale rehellion ; in May. $1 \times 42$, was madr vice-president and military enmmandat of sian l'anto. Which was also in rehellom, and thally defeated the insuruents at canta dazia Hece 24,184 ? 'low submue the forminable revolt in Rio Grande to sul he was mate powidnt of that provinee bec.,
 restored. In $1 \times 51-5{ }^{2}$ he wasemmander-in- hive of the Brazilian army which, in alline with [rymiza, thote the dictatur Rasas from lomens Ayres. In dunc. 1-na, lue accelted the fortholio of war in the comservative minitery of the MarGuis of lataná, amd by the death of that stateman helt. B,
 1505 he had been chowen to the armate and he was now acknowleded leader of the emomeatives. prom Mar. B,
 he hecame marahal. When the war with Paracuay lroke out he was at firs exeluled from antiwemmand owing to his political aftiliatioms: hut after the disister of curnpaity he was mate emmander-in-chief of the brazilian
 twice left in emmmand of the whole allien forces and these interyak were marked ley the ureat mecesses of the war, in-

 city Jan. 5, 1wis. In Fols, 1stit, he was reliebed, owing to ill-health. The duke was agn prime minister June 05 ,
 of the empren in the U. S, and Eurone D. at lis mate of Santa Monica, prowince of lionde Jameiro, May taso. He was the mont distimgnished sohlier wer fouduced ley lerazil. and the only luke ereated mber the rmire. See d. Pinto
 silm (Lishm, 1sis).
llekbirt ll. shita.
 10 milexs. W, of Nikosial : and chicf plate of the thetriet of limasal. Here the ottomans lamed in 1.5 a amd tome the ishan trom the Venetians. (iysum, baw umber, raisins.
 rase. The miles moth are the runs of Amathus, andent capital of "ypus, edelnaterl for its colder mimes and its ternjle of Tems.
Limber or Limbus [from latr, lembus. entre. lurder, in Timbon an the boder-i. e. of hell]: the woll limbus was tirst used hy the selublatie thenderians of the Midald Ares to dowenate, as being on the mothirto of hath. Hat phase in
 rection were dutamed. In this mane it was and still is,

 Chriat delivered them, and led them into hamen an the time of his ascernim. It alow methe at pare where the somls of











 (Amsterdam, 1finti) grives a (omprohemand amblestematio exposition of the donetrine of Amintins. it was tramatad






 part of the－stomath embary，athonoth in extan wasical





 forto were mate © promit manal masments of the lat


 torially altural．Whrint the hator gart of the righteenth

 swame from the onher hand．It wat mate of thert－tim，amb






The ehief materials in the enntraction of artitional limbs
 inm．rawhat，lather．and feh．＇The thrm lather matmi－
 of metal．The fort are of oume firm maturial，whoh as womb or wit ratur．Ther lant form of artifictal limb is of buglioh willow coteled with rawhile with a forit of the same matriat or of mhar．The ematrutton of mot
 is first arved of the durmi hatn and siat．This is facel
 and the rablur cowring iohaniand wher or armand the






Fio． 1 Showint ：1月 turl।
 1atana abovio the horat．









l＂or andmations 1 hrmenth tho instep or arde of the foot an






Fux．4．－Khowing all artu cat limis for inste⿻ atn furaturas．

Fone so suli－fandy as Fire or or it will the the beat that， from the nathere of the wate can be proviled．

The woisht of the pationt is mot．as many suppose．thone upan the pal of the stump lout is distributed over at herge


 comical－if it in of oufliment longth to provide leverage with which the swing the limh．and has the firmnes to luar the rontact with the sonken－the luest of results masy be expected． Jo walkinge the action of the mathan herg is largely a ato－
 upan tha was．havine that insertion in the upper portion of the fomur．The knee is antomationly self－lowing，be－ （ance tha hating of the chls of the bunc forming this joint is pumation to a lime drawn promadienlarly through the －hafto of the tilia and femur．Witlo the exieption of the anteropererine mution of the ankle，the latter is largely
 trampt an the gart of the pationt the font maturally acom－



1to ：t．－Shwink the bhtek of woml over which a ruhber foot is moldend．
In the constrution of artilicial limis，these automatic

 combtames 10 weh ：lll extant that their disability is un－












ment-maker must make nse of sume form of a lateral-joint iron similar to Fig. \%, This pattern can not he made with


Fig. i.-Showing how a rubber foot will bend in walking.
a bushings it will not withataml much lateral strain, its bearing-surface is limited, and it will occasionally get out of order.

If an amputation has been made throurh the tibia nearer than 3 inches to the knee-joint, the short stump will contract, and the patient will be obliged to wear a knee-bear-


Fio. 8,-Showing a cylindrical or best form of knee-joint.


Fig. 0 - Showing a lateral knee-bearing juint iron.
ing or peg leg-one in which the weight is taken on the anterior aspect of the flesed limb. These are inefficient and usually unsightly appliances, and a patient supplied with an


Fic. 10.-Showing the best forms of ankle-joint irons.
apparatus of this character will always walk with an awkwarl or clunsy gait.

The same rules that apply to amputations of the knee have equal force when eonsidered in comu*otion with andrutations at the ankle; and in amputations at this puint, moless there be sufficient spaco indernmath the rond of tho stump for the insertion of a erlindrical form of juint similar to Fig. 10, the best of results an not be exper- end.

Natural walking is aceomplished hy exuraniner the levor principle ilhastrated in the extension ot the font. Thi principle is well exhibited in the dexion and extemanon of the foot while walking. the foot itselt being the lower, the
tendo Achillis or "hamstring" furninhing the power, the" ground or flow the fulcrime, and the buly the weitht to he
 raising of the woight, betance the trunk, at the time when the forward foot is plautel on the eromed (being then mini-


Figs. 11-13. - Showing forms of artiticial arms and hands.
way between its two obligue supports), has droppet until the pelvis is on a lower plane than before the step was burun: the completion of the stey requires the raining of the trma to its origimal level. This elesation of the hony is aceomplished by the excreise of the lever poser to which we have referred, beeanse the extension of the foot then in the rear fores the boyly forward and rases it until the trank is in a position perpendicnlarly orer its adranced limb, and the step completed.

In walkiner, the heed and ankle rise on the ball of the foot, and hy the lengthening of the limb cansel by the extension of the font the body is furced forward, and is raised by the changing of its supurting limb from an inchined to an urright position. This fatling and raising of the frunk produce the undulatins motion so noticeable in walking.

If one or both of these levars are ampmiated at fuints where they can not be artificially replaced, an awhwart, dimping gait will result. If one lever be removed it becomes neceszary for the batient to take a shorter tep with the sound limb, otherwise he would be unable. for the want of the extension previousty referred to, to comblete the movement-at least without undne exartion. It is evilent that the longer the stride, the lower the larel reached he the pelvis. The takiner of a short step with the womd limb, however, does not entirely compensiate for the lose of a foot, but usmally enmpels the batient to alopt a lumehing movemont of the hoty: This Iurebing, dae te rotation of the petris upon the hip of the summ limb. is frepurntly ans sisted by a wreater flosion amd extomsion of both kuees. These movement - whether made nee of singly or tonjointlv, are directed teward the aceomplishment of the same re-
 quent elevation of the trmenk whtil it hav reachend the le wel wecurivel by it hofure the stey is bumbe. Patimets whe have sutfered amputations of this chas. after bobner fro
 to walk at all respiren the ohtay of bome latoor) de flome whon whom the amputation has luen furtorment through the tibia.

Owner to tho manifula nse renuirol of an armo it has











 14. prof rend.












 hination with cartanar and formine the cartmate of lime.
 atid the lime k left in the comblion of " atantio" or "quick"

 Cheminally, whth the "amation of mull heat. This process is called lakine or Nathing. l'ure or "lat" limes when - lakel swell sery moth and ultmately fall into a showwhite ? wator. if mon wator is adhect, what is called the
 tion of at hydrate and it expused to the action of the air it
 thman of lime. la the preparation of wortar, sand is added
 arending to the fineness and unifurmity of the powder into which 11 fallo whon shakel. Where the powater is very the it makes with watro a duid puste which will penetrate the imention tre wem the ratis of sum, hower dowly they
 arains of sum! her atomar their atheson will be. Hence the valme of at lime is ronshly meanered hy the ghantity of samb it will more for mite. Lime js largly used in arri-
 ber, in the mantachere of bleachin-power (choride of limen, in tanning. as a dha in smeltine irma, cte. Lime is extronely infuible and eylinders of this substance are commonly wind in the whytrenen or calcium light a jet of the iguitide mas beime thown mun a phece of hime. which Whan intansly healed emits a light so hright as to be almost manarathe tathe we.
'lon wrat consmptinn of lime. however, is in the prodution of mertire and for thic purpme it has been used in contrution be all monlorn amb mot ancont civilizel nathong. In the earlist manomy of whel any remains have bern fomme as the litruse:n, ihat of the siand of Cypus, and ambind Trey, wall wore lail up with harge stones withwht mortar ("cieloman" masmry) or with smather ones
 Finman the ine of lime for inomar was miversal. In the mandacture of mertire from lime as has been stated, the bisumte of lime is furmed hy the aldition of water to quicklime. 'lhi-is. in part, cheribally combued with the lime, and prahem the tira "weting" af mortar. Subsequenty,
 hiveramb cartmotit. In !preses of time a combination is alsu, fonmed tetwon the lime and sume of the silica of the simb with whith it is acourdiated, and sitionte of lime is pro-

 rablal amalyo of maty sample of wher and newer mor-tar- Than haw shewn that in the ohar mortars-whieh



 manmothat the bat lime io pradued fromi the furest car-




 magn- Ma. Math-









 bantol in hatne of varinh hind. Finmerly. lime-huming



of three or four days, the fuel having been consumel and the limestone calcined, the charge was allowed tormblartially, and was then drawn ont at the hotome. Kow. limuburning is nearly all done in what are called porpolual kilns. These are stuare or romm towers. Sos to ato feet in height, having a cylimalalal cavity within, is us fort in diameter. These filns have nsmally two fumabo. une on either side, situated at about one-thirl of the boriath from the bottom. In these the fires are kept perpenatly burning, and are fed with wom or soft enal, the thame and heat from which, paming up through the limestom, calcine it so that when it has lesecmed to the lewer of the furnaces it is deprived of all its carbonie acid. From time to time the limestone is chargen at the top and the ealaned lime drawn out below. sie kilus.

When mortar freshly mate from quicklime is phated in water, it softens and loses its form : hut, on the contrury, the lime inate from eertain limestones whith "ontain a large pereentage of silica and alumina hardens under water. and forms what is known as hydralie cement. When cakeined, these hylraulic limestones yifh a yellow or brown lime which does not slake or heat much on the apdication of water. From its hardness it must he ground in a mill tho fore it ean be used for mortar. Further particnlars in rogard to this class of lime will he found in the article Cement. See also Vicat on Morturs and Vicoit's Treatise on Mortars and Coments: Pasley"s Limes, Mortars, and Cements : Burnell's Mortars, Limes, Tements, ond 1 'oncretes: and Gillmore's Limes, Hortars, and rements.

Revisel by (harles Kirchioff.
Lime [from Fr. lime, from Pers. Iman, lime. (fi. Lemax]; the fruit of Citrus acilla and $C$. limetter fthe lant called sweet lime), both probably mere varieties of c'itrus medien, the citron-tree. The lime grows upon a dwarfi-h tree or shrub, and is a native of Asia, but is cultivated in numly all warm regions. Limes are in nowise interin to lemons, fur which they are neel as a substitute. The limes of the West Indies and those mostly known in the markets of the $[$. s. are the sour limes-the Citrus acila of many butanists. Pickled limes are prized as a condiment. Lime-juior is extensively emphosed in ships" stores as an antisembutic. ("itric acil is largely manufactured from it. Lime is the usual English name of the linden-tree (remus Titia).

Revived by L. II. Banley.
Lime, Chloride of: See Mrpochlorges Anhybrine and Hypochlorites.
Lime-lipht. frequently called from its inventor, Thomss Drumand ( $q$. $e^{\circ}$ ), the Drmmond Light : a somere of illumination consisting of a cylimber of lime ( Ca (1) arain-t which the tlame of an oxyhydrosen burner plays. The refractory oxide becomes briliantly ineandescent, and atforls a source of lisht inferior in whiteness, amons artiticial if minants, only to the arc-light and to that of burniner nesium. When first ignited, indeed, the incandest exceeds in brilliancy the arc, and nearly or quite magnesim light. It very soon depreciates in whp natuever, and when it reaches its nermanent en mote periuls light of a lower degree of ineandescence th its of evidence

Comparisons of the lime-light with lecone unreathfollowing result, the data heing rerl, he hereswary tositso as to represent lights equally brige, not those who slew $0.589):$
mote the diligrmen of
Relative intensitios of limelight and while an aldoplate delengths, hoth taken as unity in the rer nably practicable. The hame faf arhitrary, though it was nisiterence to two impertant Lime ditor shomild not he firceed ${ }_{\text {Lise }}{ }^{\text {L }}$ before time was given to ras to employ other means of sait until an impowerialted if satisfying the claim: and, of nut he mawarramably prethe crediture exemone delay: is commonly tormed in law a its purpase and edeet ary to extinguisls camso fitigation, - opprese suit- Thera has nficting adgulteation in the be deement it stathe of rapme decisions sumatimine the lattor oum that al cratitur's claim is The results given in th made ty Nichols and Frat of Srience, vol xxviii., 1 ally in curves of Fig. 1. 244

Owing to the ent of oxerpagas, the lime-light in usel
 fects ulan the stivis. fur the projection of transpitencies by means of the macric lantern, ete. Fior these purpuses, tow, it has been in stme theasume ad 1rerneted ty the mane peserful plectrie are - linht. Ohar refractoryosideare sometimes sabntituted for the lime in the brummond light. generally marnesium oxite and the oxidn of zirconinm. Of these the lister, zireon, is jumbably the best substance for the purpose, but its rarity has preventel it from coming into general ase.
The esential features of


Fig. 1.- Curum of relatise intensitios in the speretruar of the hate-light as enmpared with fus-light
 ments uint the freshly ignited
lime. Chrve If upon lime in pers. lime. ('hrve If upon lime in per
manent state of incandescence.
the simplent form of burner for the lime-light are shown in Fig. ㄹ..


Fig. :-Lime-light.
See, further, artime Fiemtric Imimpina and Magic lanTers; also Dolbear's The Aet of Projection. and Wright on Light.
b. 1. Nithos.

Lim'erick : cmints; in the province of Munster, lreland bounded on the N. by the ethary of the Shamon and the counties of Clare and Tiplerary, on (12e E. Wy Tipperary, on
 miles. The surface is motly an mudulatiner plain on an all



 navior statute was qemerally lelld to he ry slight anil trivial athminoms e existente of a doln could lat loy the corurto ac -ulliogent eviase they served then the was evell wentrally helit that th his almionum wete accompanied by a refusal to pay: hat when the atatute comme to be reqardeal as a tatute of repmis the natural indumion was that the dehtor might take adramtare of the sithte. unless he whatarily waived it hey and exter promise of by an acknowedgment so full and mequiveral as to the equivalent to a new promise : and this is mow the emtablichemprole. It is proviled in Grat Britain ly dand fontordans ant that no promise of acknowledament shatl he sultionent th take ia leht out of the opreration of the statur mateo it be enntaind in some writing to he signen by the parly charge-
 alter the effect of any pament of princial or interent.

The statute of Jame provides that if the plantiof be under certain disalititios at the time when the canse of :cction acernes, he may bring his action whin six war after
 merated are minority, conetme or mariase, imprimment.

 rombliner Coreat Britain, and therefote is matatent to










































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 2．






limitation al detions：in law，the limatiann of the





































 granl fathe＂a prine ifle which at limana law dial not apply

 the limitation of adions andy in case the ation was for re－
 evori in thin reatriom interpretation the rule has been re－


Pullowing the initiatibe of the coule Nitpolion，molern
 of hmination for all atotions that arior in the ordinary course of trade and in the deadiars of daily life，adopting terms ranging from six month for five vears；but for other actions they graberally jotain the subsilary torm of thirty years．

Lioman uml Mentirn Eurnmen libles．－It bition it is the bendernfore＇ment of the rioht，of which the action is only an experesinn，which entails the loss of the action．For this Joman manturn（iorman jurists suenk of limitation of clams rather than of artions．limitation in fact begins to run not merely from the time when suit can be brought（actio mof！in the（ondrete sense），but from the time when satis－ fand inn of the chain can be demanded．Conversely．limita－ time is inheruphed by any exercise of the right such us the forntinn of a phatie by way of senurity or the receipt of interest of of a pinmont on account），and in some motern legishons by my expess recognition of the elaim by the ablurary．Limitation is alos interrupted by brimging action．

At homan law tha lass of the action by lapee of time was riewod a－a jut ponishment of the negligence of the party erititled to sue．Ilenee limitation did nost rum arainst those who wonlal mot she－aganst lumaties，for example，or bogs
 limitations ran atains minurs（youths between fourteen and twonty－five．Sume of the morlem cotes theclare that no limilation will hemin torn aganst lunaties or minors． lont that limitations alreary rumning may tre completed． Tha moneral dembery of modern Euromma leqishation is to f＂rmit limitation to run goainst minors and lunatios，at besct when they are umbre guardanship．

What refori the Jum of an action has upon the sulnstantive riantit of whid it is an expression is a paestion differently
 in premome．＇The loso win antion in rem，ceren against an

 whintos．）In the（ane of the right in fersonam，on the
 is an lonerer wforenthe there is mothine left．In other wornk，they hall that ratute of limitation，as far as actions in $f^{\prime \prime}$ ramuine art comet？ned．destroy the right as well as the relledy
 froterl ta limilation．detmons that don not am at the en－
 formaniur sfatus（ibu existance or validity of a marriage， the hritimaty of a wihl，we．），ant in gemeral all aetions



 jmilisal．
finumbs of himitudion，－Apart from the theory already









 Whaty the viow ef the fromeh whlitions at hat as regards







The fundamental principle on which statutes of limitation and laws of prescriftive acyuisition alike rost is the social necessity of donir away with uncertainties of tithend disputed ciaims. If such matters are not sethed by anduliention, they must be settled by time. ("iepro "xprovel thit thought in saying that there mast at some time lue "an emo of litigation and the peril of suits." and the lomplish courts have insisted upon the same idea in declaring that statufes of limitation are "statutes of rest.

 tive zum Deutschen bürgerl. (iesetzbuch, i.. Sx-x-3i.

Mrexoe smitit.
Limitation in Exglish and L', S. Law.-. It comamom law a presmmption of payment ur satinfaction arose ather the lapse of twenty years. This presumption threw unn the complaining party the hurden of powimg that the delt had not been paid or the claim satisfied : but the fant that this presumption could be rebutted and the cham aserted. even after the twenty years had elapend, renderel it a wers inadequate rule of limitation. It has accordingly been supplemented by a considprable lanly of direct legiolation. which has taken its place in our law alongside of the legat presumption referred to. Varions statutes of this kiml have been enacted in Enaland at ditferent perbols, but those which were first atoptel were narrow in seope, aflying only to actions relating to real property. The first stathte to be enacted of a comprehensive character. alplying to civil actions in contract and in tort, as well as to actions concerning real estate was mosed in the reign of timos 1 . (2l James I., ch. 16). Lfon this statute the varims statutes of limitation enacted br the different states of the LT. 心. have been chiefly based, its principal provisions having heen frequently allopted with but slight if ant molification.

The rules relating to actions of tort and to actions comeerning real property. as well as the statutes of limitation which bave heen enacted with reference to suits in courts of equity and to criminal prosecutions, may with most comvenience he considered sparately from thase relating to contract.

1. Actions upon Contract.-It is prowided hey the statute of James that " all actions of accomat and mon the care. other than such accounts as concern the trate of merchandise between merchant and merchant. their factors or servants, all actions of debt grounded upon any lending or contract withont specialty. all actions of fleht for arrearages of rent, shall be bronght within six gears next after the cause of such actims, and not after.; Before the enartment of this statute there was no limit to the period within which an action mon contract misht he instituted. It was a maxim of the emmon law that a "risht neser dies," am? it could therefore not be harred or extuguished by any lapse of time. The object sonsht to be attanes hy the enactment of these provisions limiting the right of action to a specific and comparatively brief period was to relieve debtors from the unduc embarrasiment and hardship nathrally attendant upon harassing litigation at remote perivels of time. when rouchers and other instruments of evidence are likely to be lost or lestroyed, or it has become unmasmably difficult or imposible to procure the nereswary testimony. The statute is in furtherance of the pranciple that "the law favors those who are virilant, not those whor slew upon their rights." and aims to promente the diligune "f creditors in enforcines their clams while an aldequate dofense, if any can be mate, is reasombly paticables. The limit of time asigned is necessarily arhitrary, though it was undoubtedly fixed upon with reference to iwn important considerations: first, that the creditur shonld mut he formed to undue haste in hringing action before tima was wiven tu collect all necessary testimony, to employ other means of effecting a settlement. or tu wait mutil an impnomishod debtor might become caphle of atistying the cham: and.
 judiced in his intereste hy the erentiturs exacoive itelay For these reasons the statute is commmaly turned in law a "statute of repose." hecanse its purpme amd edent are to quiet ohd and stale clams. Wextinguish canco on litiration. and to relice debtors from apmessive suita. There hat been, howeter, no little emflieting adjudiaition in the
 or one presumption. The decision- shtatine the hatter doctrine proceed apon the gromel that atraliter's hama in not to be enforeal at the eximation of the prearibuld farionl. because it is then presumed in law that it has bew satimed.




 (contrats wot mader enah to be honght whin six years
 of action acerucs and from whith the six bats are to la reckned is the time when the "raditur wuld haw burnon his action. Thus if oethlt he gion, the statute bugins to ran when the term of crealit exphe if a bill of exchange in. payathe at sight the six yars amempand from the date of frementment ; but a nite fayabl. oh homathe is tue at any time and the - athate rime from the making of the now If, however, the mot be drawn payathe a certain time after demand, a demand mont the mand to fix the begiming of the period of limitation. If a bull on that hate hay of aram. the statute rme from the time of their expration, If a What he pavalde hy instalments, the stature bugine as to eath installment from the time when it hecomm hans
It is a gemeral primiple andicahb to statutme of limitation that ther do not apply towns bromht be the crown or state. unlese there he an expres powision in the chatate tra that effect. It was a maxim of common law that "time does not rua arainst the king." Special powinins are generally aboped at the present day harring the right of the state to recower real property aftir a fertain specifion interval ; bat the rule as ajplicithle to attions upon contract is not so freguently chameal.

The statute alsa provided that attions umon enotrads under seal. or specielties. shonlat mot lue inelmled within the prescrileal perime of limitation. Acemedingly, the defendant in such an action land waly the imparfect protectinn afforded hy the dismatable preamation of pament after twenty vears, which has hern ohbse docrithed. It is mow
 that actions unem sealdel instruments shall ha hergin within twenty years after the canse of action accued. The har of the statute may be remued in any case by a new promise to pay the detit, or hy a part paynent of it a anomit ur of interest therem. made within six buas thotore attin is brought for its recowery. The statate beqins tir run anew from the time of the jemise or payment. This is true whether the six yars haye wholly or partally expred. The new promise maly be either expenarimplid. It will generally be implicd from an umonditimal and ungualified acknowledment of the existrnce of the deht, if unaccombanied hy any refucal th pay or bay dedarations showing an intention to rely mon tho statute as a defenae. In former times, when the statute, was generally heln to luo a statute of presumption. wery slight amd trivial admionons of the dohtor trem which the existence of a delit combld be infered were fistencel upon ly the courts as andioment exidence of a mew promice, breane they servel tor rond the fresumption of baymont. It was ewen armerally heht that
 companiof by a refual to pay; hut whon the satute vame to he recirided as a statute of repese the matural deblution Wia that the debtor minht take allountan of the statate. undes he whatarily waived it by an exprese pomisw or ty an arknowledgent so full and merpuivatal as th lue equiva-

 that mo promise or acknowlelgmont wall be sathement to take a dadt onat of the operation if tho tature mane it the containal in sume writing to lue signed by the parts charquable therme. This act. Goweres. it is deplatel. - hall mot. alter the effect of any parmont of principal or intereat.


The statute of Janme proside that it the phantitf be moder certain disabititis at the time whon the canme uf ato






 intorpreted tor moan "nut it the - :anc." the 日ath in onne Statue it has bewh hof sw man onnt of the ! . .". It


abamathm withan what after hiv return．It haw hary















 atolition are nemaly ind hated in the statute of limatation in


 the fratul，and prevert him from anerting his risht，the bar of the satute baty be aroided and the six sease conturad from the diamerery if the frambl
 remedy．but out his richt．Hone thenth the semedy the low to the expiratinn of the procrerised time any lien which the crediter may haw will not 1 ne extimuthed． promiseny mite may hatred，while at met mage qiven at


 barring a right of antimafter the lape of a mation inter－ val．and＂prathe propetiong，is ant in whation of that


 though the ereditur in deprived of the remular legal means of enforemer it ．

11．Actions at Tirf．－The common－law thenry of the at－

 A－finite，limitation ung actions of this nature．Wherets



 diand with the doath of aither party the tapt．Obvimaty，

 of lames．The furionlo of limitation prexprifuel by this

































agrnand for claminge exemption from the goneral rule of limatation．it thend the mbledthat in cireat britain as wed an in the（＂，S．the only diatibites whinh are permitted to doplay the rumbing of the stathte are suth as exist at the tume the right of action tiret ancrumb．Sosubequont or in－ terwhag dixadity will ho regaded，and moriginal dis－
 inturnd．Thas a whan who in dameivel during minority ＂an met prohne her puriol of dianbility hy marying before

 dealt with：but whateror may the the ditferemes between the－moral tatute of limitation，the prationd oneration is cubtantially the same，A prato who is deprived of the fusmenion of his lam by an adverse octupant for the statu－ fory［urian］is forever perantel from recovering it，and is thin．．＂．all blantwand purpere divested of his ownership． ＇The apparent etted of the stathese，then，is to rest an inde－ fensible title in the adrerac jusueser，or，as it is sometimes experact．th trinforer the bithe from the original owner to the ow whe has mantained the adverse prissession against him．It wohl．howerer，be a more aceurate description of the prows to spalk of it as comfirming to the molverse pos－ sewir the undinturned wideyment of a title aequired by him the hie orgimal act of diepussessing the former owner．So impertant win the acturt visible posessinn of hands decmed to ha at rommon haw that the mere disseitin of one man by
 th the latter．The ferwn who had thas been deprived of hiv property hat artain rights of entry and of aetion，hy the exereien＂uf whith he might shew that he was entitled to have the lands redored to him；bat．in the meantime，not all of thes rights twother amonnted to a tithe，nor even to an imbest in the property，and they were so precarions in their atare that ther might he lost or larred hy a variety of wiremmanmes．＇lan true effect of limitation，therefore，on The intarots of the parties is not to ereate any new property rights，but only to rut off certain rights of action which had surviwed the lows of property rights ly disseisin．In either view，the prometr has，upor the expration of the period of limitation，betome st aflectually vested in the disseisor，or adreret presessor，that he can divest himself of it only by the orlinary mans of comervace．Even an abondonment of the froperty to the oriminal owner，after twenty years alvar fusemin，will not have the effeet of restoring the tithe whe latter．

This exphantion will hetp to make char the distinction Intwern limitation and the related doctrine of prescription． The hater hrm hesighates the preves of acepuiting by lapse of time rishts of buc or enjoyment in the hand of another． ＇Them rights，known varionly ats easements and protits，are propely anferrel hy erant，if ded ：lont the eourts will，after the riatht ha teen excrivel for a certain length of time， condunively presume that it was origimaly conferred by grant．＂f erome this so－salled conclasive jresumption is maly at chmey fiction for the rule on haw that rights in the nature of amements aml profits may be aequired by their anjos matht during the prian of preseription．The doctrine of preatiptem has hem develnped almost exelusively by julipial durision，ant is mot，in the［T．S．at lemst，usially regulathel he statute（Sie loresoripmos．）The doctrine of limitation is．in it．furemt form，purely the ereature of
 propery．
The in uf disarisin which．under the deseription of adverse
 in the taking grsamion of the jurerery with the intention of chaming The same as owner，or the languare of the
 tention in of the carrace of the ant：conserphently no symat－ ter or uther trepsacer，whe enters upan the latide of an－ Wher withont this intention，is a dissomer，and no statute of limitation rum in his faver．The prestim of the motive or inlomion with whid an whty is mate is always one of fact


 at han be＂fon to the conatradion of being a hostile or at－


 timaine of hiv torm，confer unoll himedt the rights of a
 then in［＂mescom．he dues mot lase the character of a ten－
ant and his possession is always in subordination to his landlorl's title. In Xew York imd some wher siates it is now provided by statute that a tenant mav be domend an adyerse posessor after twonty years from the aspation of his term or the last payment af rent. lat sudh tams the statute of limitations hegins to run at the expiration of and twenty years. So, alon, the disceisin, in onder to mofor
 frechohl interest in the extate in question. In other werpic, the disseisin of at tenant does nut in general sidt the stathe rumine arainst his limllord until the tenamtes femm hats come to an end. Lntil such time the landum, who is deemed to have only it future estate in the lamso (erp haxplorb and Tevast. can mot bringejectment for the momises. and consequently his right of action has not, in the lansuare of the statute, "acernel." He will usually, therefore have twenty years after the tenant's term has expired in which to bring his action for the rewory of the proprety.

It has been observed that alserse pusemion in order to "ripen into title," as it is often expresed. must he aceminpanied with an intention to claim title to the land uecupped as against any amd all other persons clamine the same: but so long as this intention exiets it is immaterisal whethere the adverse possessor acted with knowledre of any claim hontile to that asserten by him or not. Thus if a persm immently incloses a part of his neishbor* land with his own and weenpies it as his own for the requiste time he has as effectually displaced his neighbor's clam and title as thoush he hail knowingly and wrongfuly seized and oceuped the lamd in question. This has been denied in a few states (riperially Iowa and hansas. but is the genemaly aceepted and more reasonable doctrine.
There has been no little eontroversy as to what acts of ancupaney shall be sufficient to raise a presumption of alverse possession. It is difficult to kay down any temeral rules an the subject, as the same acts may require a hifferent comstruction aceorling to the mature of the lam upon which they are committed. Condnct which would amont tu an assertion of ownership in the cate of woulhand or pasture land might amont to nothing more than weca-mal acts of trespass on a cultivated farm on a city hot. In weneral it man be sain that in order to give possession the charater of a disseisin it must he acempanied with the habitual coltivation of the land or by a subantial inclosure or other permanent improvement of the premises. In other words it can mit he a seeret possession, but must be "aetmal. visible, and motorious." It is not neeessary that the rightinl owner shall know of the adverse possession, hint it must be of such a character that he may with due vigilance become awam of it.
As would naturally be expected, a person will usually gain title by disseisin only to so much lime as is athally hem by him in the adrerse possession above heseriberl. It most appear that he has actually cultivated. or inchomen ompored all of the land so clained by him; but there is one clase of cases in which an alverse ponensor may actuire title forme land than he has actnally inclosed or rehused tor pussemion, and that is where he claims under a deed or will whicla describes the tract or pareel of land ilamed. In such cave the alverse possessor is salid to cecenpy ander "color if litle." and has "constrmetive pasession " if the whole trat describen in the instrmment under which hur chams. There must, however, in esery case in which this dnetrine is invoked be acthal pasession of a part of ha lat or pared described, and the courts have refused to estemd theprinciple so as to give constructire prisession to rery pxtmate trats of land. especially where hut a small portion of the tract clamed has been actually ocempeat. This dentrine of comstructive possession dups not prevail in Enchand. De marme no "color of title" ar chaim of risht, in the frever mane uf that term, is requisite to confer title hy dissemint where the possession relied apon in af the prane eharamer. The anty title which need he elamod in such casm is the title :andureil by the disseisin.
It is obrionsly necessary that the adveree pmaminn, in order to bar the rightend owner, shatl the contimume durine the whole perion of limitation. Any ahamomment of the pros session by the disseisur befure the period has run its conree at once restures the title to the wriginal, ur "richtul." owner.
 stranger, constitutes a mow disseinin and the bugiming of at new periond of limitation. It is a peneral rult that suremise dissesins, even though there be no intervals of time the wern them, can not be "tacken" so as to make up the time of limitation. but subsefuent oncupats who are in "privity"
with the wriginal dimanir mat tank their terms of pomession tohis. beprivity i- hro ine ant "privity of atathe" or the transere of the lamo from one to the other be will, or




 pansesions in all cans where the newermer hats enterend

 This is the rule in fombecticut, thio, and a fow Wirturn states. It semms that in Eingland it in mot momary for have



IV. Suits in Equity. The sereral statutos of limitation
 cedinge in the equity tribunds, and are of no hinding fure
 diacretion reacel in the comets of equity to grant or refuse thoir aid, as justice misht romire, rembered unmeessary sam arbitrary limitations an suit- Infore tham. It has hemeser, become the practice ith enfuty th aply the stathtory rules of limitation to all callere of at tin whith come ane ifically within their provians, and exal to extend then to ather analugan cans. Manifetly, hawever, the emarts of andy are, an compared with the cinuts of law, capable of employing thes rales with reat flexibility and they ho in fact.

 to da so womb anable fratal to be commitale or remalt in manifut injutio.
V. C'riminel Irosemtions.-There have hepm averal stat-
 appling to puse ate - Will. 111., ch, :3, it war proviled that no pramentimen hall lee had in canp of hieh trantm wherehe computing of hand may ensue. exept far an attempt to asaminate the king. malles the bill of indict mest her fomm within three Fatre after the sflene was emmitted. Sin ha the statute 31 Eliz. ch. is. prosecution be infomation unw it proal satute was limited to a preacibal gremme. In New Sork it is provided that indictments fin mumber mat he fomed at any
 indietments ane to ha fomd within fise yane atter the come mis-ing of the wfores. hat the time dariag which the defondant shall not hawe bern an inhabitant of the state, or anally residmat threin. shall not constitute any part of this primat. Smilar satutas exit in all the onthre states.
VI. Letions nguinst buble afficers. +to. -In many uf the ['. S., as well as in Englamb, nathos of limitation have hern enacted detinime and rostricting the time within which afe



 rule of limitation reendating then are tow varime to make
 in this phan. The stathes of the sereral ntates should he comaltad for further intomation ratardine them.

 Wilkinan om Limitations. (ilusas W. Kinenwey.




 pewided for that emil. St the common law an individual









 the management is nemparilo intriatod to a fow individuals ont whon to chase promail sumptan can he hat. A failne may involse the low of the chtire forerty of many



















 nat in mal hathe of the（I．S．are liable for twie the anmont





limit．Mothon of：in mathemation a methat of arriv－

























































 What at ind bear the surface，of beyls of the carbomate of





 from whinh the－－utply of iron has handerival．In the $\mathrm{L}^{\prime}$ ．S．






 －a，ho that thay have ley seme writers hete represented as

 fivial in pavition，and form no pat of the stratifeation of this of any mher formation．It is arohathe as sugested by Drof．fratarial Prime that amm of the brown hamates
 rites none the outcons of pritures shates：hat some of the mut importinh dipusits of this telt ares sur removed from the matmorphond Palanzoic rocks of the Alleghanies that they wan have hat tor connertion with them－sum as the limonites of sationary regino of Masachusetts and Con－ nentiont，and staten i－land．N．Y．In Alabama and Ten－ nowne demain of limonite of great＂xtmat and purity are
 stofn：la Mnomuri a lett of sujurfial limonite encireles the dindrit which enataine the great deposits of specular irm in tha ewntral part of the state，and may be sugposed to have land furmed from the ferrughous dranage of this distriv．The limmites which are formed he the oxidation of the stratiful cartumates are lest seen in Gouthern Ohio and batern kindmey．where some of the calcareous ore－
 and are more or low deply eompred into the hydrated
 limmite beds of Eistem New York and Comecticut，which fan－into siderite in dopth．

 rombline lous of samd，eravel，ete．contaming irom．Lake ore of tha namu sisela to limonite which gathers at the loot－ tom of lake aml bonds that reetue the dramage of ferm－ ginm－atrata or erite．In sume of the swedishlakes and at
 the dequit buing ripendow at intervals of one year or of ，veral gears．Revised ly chandos hacinamp，
 Frame，wominer the fromit deparments of corres，

 math of sumborn frater，and had a chandmable foetic and romantio literatur．

Limpel｜，War．Irmpelu，from Lat．lem＇petru，lam－
 pan（ig．M，in which the shal is low mat the spiral ohserare，





 Which ramaim the mom Po






The（irnek fissuretla．









，J．心．Kinhaley．

Limporporiyer：the second largest river in somth $\backslash \mathrm{f}$－ rica：so called by natives along its mildla comrse．It has several other mames siven by rarious tribes：is ahe called by the loors the＇rocentile Biver．It rises on the＇Tramsaal

 Bay．It forms a large part of the nothern bumbary of the South Arican republic．It has many tributarios，hut has much of its water in swamps．Its month is ubstructell by a sandbar，and it is not important for navigation．Jimen－ ered in the third decade of the ninetenthe century it was not known for thirty years where the Limper＂）reachal the sea．

C．C．Amans．
Limulns：See horseshoe Crab．
Lin＇acre，or Lynaker，Thomas：physician am seholar： b．at Canterhury，England，ahout 1460 ；stuhion at＂xford and on the Contiment：became fellow of All siouls．，oxtoril， in 1484，and afterward J’rofessor of Physic；was in ansuet 1 － ate of Colet，Erasmes，and Lity in introlucing into Ehy－ land a knowledge of Greek，which he leamed from the celefrated Chateondylas，amd studied umler Polizian，from which lansuare he male elprant transhations of dalon into Latin；stmbid theulory，and in 1.018 hecame a fremblary of
 was its pesident for life，amI was physician tu Henry Vll． ami VII．I）in Lundon，Get．：0，1524．Ilis translation of Galen＇s De somitate Tuendo appearen in 1517．the Me tho－ dus Medendi in 1519，and the De Trmpertementis in 1－92． He published in 152t a treatise on the rules of Latin prose composition，De Emendate structuru Latini S＇rmomis， lib．vi．See the Life liy Jpr．Nohle Johmson（183ig）．

Linares，lemaares：a town of Chili：in the central basin or＂valley＂on a plain near a small southern atllu＋nt of the river hanle： 16 miles S．S． 11 ：of Sintiago，amd about 500 fret above the sea see map of sonth Amorira，ref． 8－D）．Jopulation ahout 9,000 ．It is an important railway station on the line which runs southward from santiaso， and is the capital and commercial center of a province of the smme name，having 3,488 sq．miles of area and a 10 m－ lation of 115.646 （189）$)$ ．

11．11．
Linares Josk Marla：statesman；b．at Potosi，Bolivia， July 10，1810．He was a flistinguished jurist，was Minister of the Internor under santa＇ruz，subsequently minister to Spain，president of the senate in 1845 ，and fur as short time acting president by virtue of that odlice．In 1506 hee was elected presiblent．and his term was one of the beat and mont progressive that Bolivia has ever known．1）r．Linares was depused by a revolution in Jan．，1s61，tom defuge in Chili， ant died at Valuarato the same year．

II．II．s．
Liucoln，or Lincolushire：contry of England，extemb－ ing along the North sa from the Wash to the 11 umber． Area， 2 ities miles．The grom is very low along the enast；in some places it in protected by dikes aramst inum－ dations of the sea；but from the coast it radually rios until it swells into high chalk hills in the northwetern part of the comuty，the so－called Wohds．The suil is generally very tertile and cultivated with great care．Large emps if wheat and wats are raised，and fine breeds of hores，short－ horned cattle，and lene－wnom sheep are reared．Immense flocks of geese are fed on the fens along the shore．l＇op． （1891）40， $7 \pi 8$.

Lincoln：the eapital of Lincolnshire，England：on the Withim； 130 miles N．of London（see map of Englamb，ref． 8－1）．It is a parliamentary，county，ampmiaipal monuth， one member being sent to the llonse of commons．It is an old eity，the seat of a hishopric，with one of the tinest cat lat－ drals in Lingland，built in the thirternth entury．50，fect long， 250 feet wide，a theological colluge，and it alow of
 implements．amd an extensiw trald in flom and wobl．Iflne fanous bell Great Tom of Lincoln is hume ith the ementral tower of the cathedral．Lincoln has a notmanam horni－ fair and a celebrated race－merting．Pop．（1＊31）41，4！1．

Lincoln ：eity ：eapital of Logran co．Ill．（for la wation of
 the Iemiat．Weeatur and Evimso and tho 111．（＇out．railways：
 It is in an agricultural and stock－raking rexina anl in a seetion moterlaid with of fect of conl，and ha fome conal mines，soveral hour－mills，press－drill wophs，chumine－fac－ tory，horse－collar fictory，and excelkior－works．There are 17 churches， 3 uational hamks with combined enpital of 敦to，－










## Ehmor on＂＇onraler．

Lincoln：city：（apital of himonnas．．Kan．（for location

 City．It is in a wheat and arm revint：hat lapge wenj－ growing interests，and whtaine o whrohes a matimal lank with capital of soo．000，a State bank with coppial ol 000，and 2 weekly nowsiturs．It is the sat if the kian－
 seres，which has grmals and buildine valuad at siv， 000 ．


Lincoln：rity：capital of Nemmelat and of Lameater Comity（for location of comete me thap of Ximata，ref．
 P＇ac．，the Fre．．Elk，and Mo．Vialleg，the Ma．P＇ac．．．and the
 of the most thomishing citios of the Minami valloe，and has an immense wholesale and bintrimuting hasinss in all lines of merchandier，lumber，chal，urain，and live atoek．It
 soventy whomale honses and impertant mantartures．The census returns of 1 sem showen that 11 i manafinturing es－ tablishments（reprenting 38 imhestres）repreted．These


 ings include the state Cupitol（built of white limestome at


 less．＂Amone the industrial institution are the laiversity of Nohmak，Nehraka Wialryan（niverwity（hartwed twit，

 Military Seademy，Limmh Sumal L＂nverity．Namarka



 4 national lanks with combinel capiat of slamponal． 4
 tric lights，wectrie strept－railway athl t haily．？ 1 whlaly，




















 drath of his father. was lat six yato of acto and he stew





















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at the springtiold har. Twore there mon-phtital lectures




 mar prefety well the mutis.a and the ramerl of its suthor.



 membering that lamon han often manared his strengh with bombain the Illimis Lawishate and before ine
 ravelt, in the olinion of thase who haral it, was one of the
 fether it hin whoh arere. It aroused great enthosianm, and from that monem it was felt that Lincoln was the man


 Trumbull wa uhimately when, but the armed eontlict on the mil of Kamsas, whinh Limeth hat predieted, soon teesant, and the reunt was the dimpuntion of the Whirs and the formation of the farmbitan party. At the Blominglon state comvention in 1-in, where the new party first asmmed form in Jllimis, Jinoth made an impressive address, in which for the firt time he lowk divtindive ground against sharery in ats.lf. At the matomal hepublican convention
 Limode was put formard by the llinois delpgation for the vio-pmodelay, and rocivel an the first hallot 110 votes aranct ast for Wialiam 1. Whatom. He took a prominent patt in the cansas. bedue in the chectoral ticket. In 1858 Lincoln was manimomsly mumated by the kepublican State convention as its candidate for the $\mathrm{l}^{\prime}$. S. Senate in phate of bonfacis and in his sporh of acceptance struck the kevmar it tha celchrated derlaration that "a house dividni atrains itself can mon stame." Mhen he was adrixel hat the expresion was an impolitic one, and would frulably defat him, he revended his character by decharing: "I would rather te deftaled with his "xpression in the surech, and uphal amb dixeuss it before the people. than he victorion without it." (hemdon, ii.. 67.) The sane inflexibility of far-seding parpuse showed itself at a later period in the conse of the campagig. At a conferrur held at bixon hetween Jincoln and leading Rejub[itwhs. ha derdared tu them his purpose to propound to Lharlat the followine question: "can the pophe of a U. S. 'le ritury, in any lawful way, aramst the wish of any citi-
 furmation of a state comstititiont" All thase present rmaneled limenh no to put that guestion to bouglas, be"anse he womld answer it in the atfirmative, and thus probably wore armberim. linedn replicd that to draw an aflimation anower from Donglas was exally what he wammen, aml that his whert was t" make it impossible
 mevt pradential election, He considered the presidential fizht much mure impertan that the sematerial one, and he wombl la willige to lome this in order to win that. Ar-
 hattle of 1xill is worth a hmotred of this." It turned out

 Ital han anw ind in the mative. llinnis wond surely have vold asame him. llis atlimation reply gave hin the











 Statwe in the lisht by which he hat hone bern regarded at


 whtion at (hicago, aftire surited efforts math in favor of

Seward，Chase，and Bates，nominaten Linenhn，with llami－ bal llamlin for Vice－I＇resident（May 1＊），at the same timm adopting a vigorous anti－slavery plattiorm，＇ $\mathrm{I}^{*} \mathrm{la}_{1^{2}}$ I Dmo－ cratic party haviner been disuramized and presubtine two
 the＂Aneriean＂paty having pat fowsad Joln Pall，of ＂lemessere，the liepublican victory wata an exay unt，limenln beiner elected Nus． 6 by a larme plurality，compurnmonding nearly all the Northern states．hat none of the Sumthom． The seecesion of suath（＂arohna and the finlt states was the immediate result．followed at few monthe later by that of the border slave states and the outbrak of thas ormat civil war．The life of Atrabm Lincoln leceame thonee－ forth merged in the history of his comatry．Xonse of the details of the vast contliet which filled the remadnder of Linculn＇s life can here be given：ther will be fomml umber apmopriate headings．He mathen Washingon loun，2a， anal was inangurated Presirlent of the U．S．Mar．4．Esti． Lineoln called to his eabinet his principal risals for the presidential nomination，seward，Chans，（＇anmont，inn］ Bates：serured the co－operation of the Thion lymorats．
 eral states upon the first tidnes of the bmalnordnment of Fort sumter（Apr．15）；prochamed a blockade ot the sonth－ ern ports（Apr． $\mathrm{t} 日$ ）：called an extra session of（onderess for July 4 ．from whith he asked and obtained forooto men and Sto0，000，000 for the war；phated Dectellan at the lacat of the Federal army on Gen，Seotes resionation（otot． 31 ）：apm pointed Elwin M．Stanton Secretary of W゙ar（．1an，14，18to ）， and on sept． $2 \times .186$. issued a prodamation derebaring the freedom of all slases in the states and parts of states then
 This was the erowning act of Lineuln＇s carer－the ant he which he will be chieny known through all funt time－
 coln called for 300,000 volunteres to replate thuse whose term of enlistment had expired；made a celobrated and tonching．thongh brief．address at the Jedication of thes （fettrshurer military cemetery Nor．19， $7 \times 6$ ；；eommissionen？ Ulyses S ．Grant lioutenant－general and commambr－in－chief of the armies of the U．S．Nat．！3，1stit；was re－elected President in November of the same year by a larw majority over（ien．Medlellan，with Andrew＂Johnsom，of＇Temmessee as Vice－President；delivered a very remarkable address at his seeond inangaration Mar．4，186．）；visited the army be－ fore lichmoml the same month，entered the eapital of the Confeleracs the day after its fall，and upon the surrender of Gen．Robert E．lee＇s army（Apr．9）was aetively engaged in olevising generons plans for the reconstruction of the Union，when on the evening of Good Fridix，dpr．14．he was shot in his box at Forl＇s theater．Washinertom，by dohn W゙ilkes Booth，a fanatical actor．He died early on the fol－ lowing morning，Apr．15，1s6．5．Almost simultaneonsly a murelerous attack was made upon William II．Seward，that Secretary of state It noon on the 15 th Andrew Johnson assumed the prestency，and active measures were faken Which resulted in the death of Bonth and the exeration of his principal acemplices．The funeral of lexadent Lineoln was conducted with mexampled solemnity and marnificence． He was buried at Oak Ridge Cemetery，near suringriell．Ill．， on May 4 ，in an appropriate fomb，sumomed by a statne， Oet．15，18．t．The leaders and eitizens of the expiring fon－ federacy expessed gemmine indignation at the morder of a generons politial alversary：foreign mations towk part in momming the death of a great statesmam；the fremelinen of the south almost worshiped the memory of their alelivarer： and the general sentiment of the great nation ha had samal awarded finm a plate in its affectinn seareely meoml to that hed by Wishington．The progress of time simethis doath has constantly increased the respect anel admination as wasl as the affection in which he is heln by the pereple of the［．S． The mont thorough investimations liave male it mome amd more evilent not only that he was the manter－spirit of tha
 that he was in very small meanare imdeltul to the＂ammen




Revised ly（＇．Ǩ．Abdan．
 3，17：3；was a farmet in his native town at the outhreak of the Revolntionary war in $17 \pi \sigma$ ；having ablen in wranizing and training the（＇ontmental sobliery，was appuinted major－
 Wranhigton during the siespot Josthn：commanmlend an ex－ predition which in Jume， 1 iati．clearial Boston hathor of


 at Morrintown，X．I．．in H゚eb．， 150 ；was apminterl hy Con－





 amblas in september apminted to，the clacef command of
 mate by the Rritioh gempal lowvor amainat flarlestan ；



 haonly repulse of thet．！retumed to（＇harlastom，whith in the siminer of losu was besionerel by sir llomy（＇lintom and （exin．Irhuthot with greatly suberiot foress．the lefense Was skilfully and stremmmaly comdmeted，but limeohn was obliged to catitulate May 12 ，amd was allowed to ano to his home at llingham un parole．Exchanged in the frimer of 1：N1，he jumed W：ashigenn on the Hudnom，took part in the sioge uf Yorktown．amd was deputad torective the sworl of Commallis on his surpember．lle reerised ther degree of
 tary of Wiar in thet，1Tsi，he held that nllice three rears， after which he retired to hiv farmat Hingham．In 1 tistors las commandel the Masoblamedts militia in the suppression of shayss rehneljom：was elowed limutemant－（iosernor of Massathusetts in lisi ；was apmointed colleetor of the fort of Boston in 1 Tsa，amd held that aflete fur twenty veats．He Was one of the enmmissioners who in lisel male a treaty with the（＇reek lmdians，aml in 1 fins was rmpleyed in an masheersinal negotiation with the ohion Imians．Ihe wrote many papers on sedentifie subjects，some of whith were pult－ lisheit．D．at Hingham，Nay $0,1 \times 10$ ．see hix Liff，lis Francis Bowen，in sparkss－Imerian Biogrophy（bd seriex． －ol．xiii．）．

Lincoln，Robert Tond：eldest sum of Alraham Lincoin：

 which he suon left to enter the army where he verved till the emil of the rivil war as a captain on the statl of Gen． （irant．De finshod his latw atmbers after the war elosed， and was ahmitted to lhe thistow bar：was demetury of
 a candilate fur the presidency，but refased to be phated in
 mimister tu（ireat Britain．

## 

Lind．Jexsy：＂The swedish Nightincrale＂；b．in Stuck－ Inclan，Oet．f．1Nol．of humble parantage ：hor father was a twather and pors．Her pramemins talant attranted the


 morared for her ahmission 10 the nasieat acadents，where hor fromess was rapid．she acted and sume in dildren＇s barts till she was twelve years of atse，whon har volice falet fory．Fomr vears later it returned，and sle sang the part of Diex jn Meyerbeer＇s Pobort le Phoble with a brillianey that
 Storkholm，amb samor with applanse in tho what eithas of

 who took a detl：inturest in her，aml whtainod［rum D．D＇il－
 thasiama，amb in lar chatrin luft Jarin．ller next upfor－
 her sucepos was dintingobeht．l＇resious ou this the hat

 Silesin，annl The Denwhter of the liegiment．Iler tiret apr



































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 and at uandation of Byan's Jobrea Mrlondion (Hebrasia M, limeter. 1-tis)

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 licultura (1- tol), atc
linduer Abmar: h. at sula, in the grame duehy of



 marly all berman wide. This sucese prompted hin to go
 man wote, hwowr, h... fabmahy recelved, with the excep-








 Amatram. Dinding this cmplayme irksme he went to Bom for farther stadio. Before he had ohtained his doethate (timally won in 18:3), he returned 10 Arbhem as
 riod atheh bidy (1sif), amd definitely chose lholland for
 Lamgatac in the Ruval healome at Breda, and here he rematum until latho when his apmintment at education in--14.40r for sumth Honland temk him whe Thague. Ilis firs lucary venture was a shed for chiden pubtished in








 lication if a mowly jommal, writtom thtirely be hamelf, eallad Xedectometacher spetator, which he contimad in the
 him. In its pato aporatal werem of his bexthown











 1. I. Mareh.


 trad in lumber erain, and hame. It has manfathres of





Limdsay, Baroxs and Earle: : distinguinom family in the Scottish perage. hescendel from sir Walter the Jindsay, an Enclishman of Noman descent, who in the reipn
 thian. In the twelfth century the lands of Cratword in CIydeshate canm into prosessim of the fanily by an intermarriage with the royal line of sothami. Sir ditmes Limu say of C'raw ford was distinguishod at the battle of Geterburn. His nephew and hor, sir David, martied a sister of King Lewhert III., and was mathe hy that monareh Larl of Crawford, while Sir Willian, bavil's ymumer hother. became anceator of the Lord Limsay of the Merea. llalldington, and. through a matural som, wive aloo alleratur of the celebrated pret, sir bavil hindeay of tho Momat. In the fifteenth century the Lants of 'rawford wore amone the wealthiest. proudest, and mont inthential of tho sonttioh nobility, and took a large part in the eivil warfare of that agitated periont. Davili, the fifth carl, a trusted ministur of James 111 ., was made lonke of Montrose in 14-n-a title never bero bestowed in sothand except unn prince. ha 1644 the tenth Lond Linulsay of the Brree was creatod Earl of Lindsay, and soom afterward obtained also, hy a mow creation, the barthom ('rawfimb, extinct in the ofder line. John, fourth Earl of Lindsay and ('rawford, b, in (het., 1 Fus. was a distinguished general in the liussian sorvice, in the German campaign hif:3-45, an! the suplresion of the movement of the Pretember in scothand in 1ith. In, in London. Sept. PO. 184. A. W. Crawhol Limeay, Farl of Crawford and Limmay (d. lore. 13, 1880), wrote She Lives of the Lindscy.s. See Crawford, Earla of.

Lindsay, sir bavid, of the Monnt: poet : 11. almat 1490 . either at Carmyltom, Bant Lothian, or at the Moment. Fifeshire, Acothand. In 1501 bee is menthomed an anmatemr actor in a play performed at the court of dames 15. to scotland, and in 1.51 ? was apmented keper or thene to the infant prince. who succeedend to the thrme as Janes V . His important duties were dischargeri with in affectionate care, which the young king rewarded in 1504 with an appointment as king's heralf, and in $15: 50$ with knighthood and the oflice of Lord Lym kine-at-arms. in which capmeity he accompanied embassies to the courts of binglam, France, Spain, and Denmark, and is introlucen jnto sentt's poem of Jurmion. De representel cupar in Parliament (1542-43), contributed to the success of the Reformatim, and died at an unknown place and thate before May, 105.5. As a poet lindsay takes high rank, and his satimes against the clergy are credited with having been the mot aflective preparation fur the labors of John knos. Dlis prineppal works were The Dreme (10)s): sintyre of the Thrip Estatis. played at court in 1539: Mistorie of siquyp Moldrum (1548): and The Alonurdie (1053). The hat edition is that of the carly English Text society (190.j-î), in is parts.
Lindsay. Thomay Martis, D. B. : a miniower of the Free Church of sontand: b in Lemahasow, Lanarkshire ont. 16. 18t3; was educated in the Chisersity and New Colleme of Edinhurgh : has been Asoistant lrolestar in Lumia ant Metaphysics and examiner in Arts in the C'niversity of Edinhargh: sercretary of the band of bexal examimith. Edinhargh: Profosour of 'hureh Ilistory in the dreve Church College flasow: wnmber of committe on foreign misans in the Free 'hurth of Scutamt : and wate at delegate to the l'an-Freshyterian Comacil at Thmente $1 \times 9$. He has contributed freguently to [erimiocals and th the Encyctopet lit Britamict. Ili has pullisherl Ifomblome of the History of the Reformation (1心s): Commonturios ont
 The iefs of the spmatles (inss).

 traveled on the continent 1rob-in a tutur the the loke of Nouthumberlant: hela rarims pasitions in the Churbh if


 Doctrine and Wrakip frem the lityormition to ner on'n
 in his secession from the E-tabliohel thureh, as was 1 ?
 distinct awomal of the [nititrian punition. limaty's was the first society in Fogland framklyalled] [nitarian。 L, indsey's original chureh edifice is now the heabluartore of the English C'uitarians. Ile was a man of gemmine -piritnat
force, and of the mont thormgh intellecthal and moral


Lime [M, Eng. < O. Pine Mite, hawner, cablu, from Lat línea, limen thean, strmer lime (ative, of limum, flas) F'r. lemn', lime, which alon inthomerl the mamme of M. Eng
 neither breath mo thicknew. We may rewarla a lime the path of a moving luint. in whioh cator the hature of the line will depemb uphe the law of wion uf the pint. Two por
 when thr distane betwem them is intinitosimal, and the correspmang portion of the tine is tallod an ofoment. Wr.
 equal, ur sat that the projetions of than . Wramento on a siven straight line hall he whal: the formor in the mothon of phate qumetry and the latter i- the methat of athatyond

 in the same direction: that is, it in a lime whate direction is the same throughnat : at armed line is one in which no two consecutive elements lio in the same limetion. See (creve.

Revised by li. A. homerto.
Linw [from Lat. limen]: in music, at horizntal mark n*ol mot only in the formation of the state and ite extension by
 ured ham a hong mbroken line after a figume sunfies the rontimation or holling of the mote indicateal by ithe figure. while broken or short linew imply repeated atrokes of a note. or sometimes the repetition of the same figure wer the sereral motes of a moring bass. fee Ex. 1 :


A line drawn through a figure thus 4 or $\$$. is equivalent to a $=$ imd back. Fiqures stame fir at shap fonutho a sharp


 See Ex. D, where the crasing uf the ther and alto is pointed out by lines comnecting the notes of the tenor.

$$
\begin{aligned}
& \text { Ex. } 2 .
\end{aligned}
$$

In malern masic for the wigan, curved or straight furpm-

 or the reveres. "r from ind stop or set of heys th another. Hastancen of this are given in EX. ©:


Two divering or enverging lins user a sario of mato im-








 The mummios are wrapmen in in recelnhe of the material. Stir Gardner Wilkinm han fully der rhand the lman-manufacture of bityt. Thace term time or at whme nabe for







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 of whelt hav hat kept fate with the requirembent－of that
 wht








 －pain and laty were colehrated lor the culture of llas amd


















 litte wortere whot thared in their athention．If this were


 the watp was of linest yati．Arkwrights imention datared


























 1 ratlie．









Srabant，amb some of the（ierman lowne were notable for

 ＂onary．In lelanders．ly the mblathe of the thirtewnth ern－




 inse ant sino the time of the loman rule limen has bern
 linest of Rhe inas tie the sultan in ransom of some noble primblers who hat fallan intu the hamds of the paynims．

 in colmonn with all others from the las of the llaguenots． lasmia las lomer beron the greates bax and hemp growing country uf the wetrd．
 the j＂pmlandan than in almast any other eomatry．
 manufatare．＇lobe thastilng is mathe up of a momber of smaller tilaments fommd togethers．＇J＇un primary operation in there separation was telmed herklingr．The heckle is a
 The fors amb partially divides the thamems of the thax．The tinemose of the dax depernds afon the number of lecklings it rexetro ly instmanents of increasing delicacy．Ma－ Whmo horkling is now mon emmmomly asol，and there are vations patenta！invontions for this finrows．The fibers regnime to he witem into a eontimums thread before they ate waphbe wh hoine waven．＇Jhe carlies method of doing this was he the spintle．One was fambat＇Thebes by sir Gambner Wilkinson which had still some linen thread upon it．＇They wore＇atomat lo inches in fength．usually of wood， with a dirular hand of grymun，or compusition．They were bultumi bear ont aml，lapering to a point，while lhe ot her
 the lamelle：amd the spimbe resting upon the right thigh， the right hand was drawn quickly wer it，cansing it to re－ mberer span like a top．Io this was afterward added the divati，a finer of worl round which the lax to be spun was wrapled．＇flac spiming－wherel was the next step forward．
 ham on tho pimillo it hohbin romal which the thread was

 at dinall or rock above tha spimelle．A trathe moved by the fian eran a rutatory mation tothe whed．It was only by slow Whater that lhis shlphatem the older instrument，and at two－lindled when had not bean very lomer in use when Ark－
 tellifan to lat prasibility of a similar revolution in other
 Thuman l＇arthomac，hoth of Ibarlington（1）urham），Énghand，
 hand were worked moler lierenses from the patenters．It was lomer lofore the lamb－mate yarn was sumpraded ley the mat






 aro hen wewlehod or combed：brokte into three piecess，the inner sodinn buiner the tura：herkled，now usually done by



 thin frowe．for whish jurgume warm wator is now used．






 imbientium llo quatity of saras．lour information as to the





The princlinal Yaricties of linens aro lane（Fr．limom），the finest qualities of which are mow mato in lreland．for hamd－
 burgs，towelings，camvas，pardines，etc．Jiapers are fatrice with patterns of goometrical regularity such aがare pronducold by the kaledoseope．Dorlus is a strons，eonater fabrie，for－ merly much used by working frople for shirts and tronsers． and also male in jackets for soldiers．Larere quantitie＇s of this eloth are expmrted tu sunth dmerica．Ihumushs are fabrics with figures of print and thowersa and free－hamb or－ nament as opposed to the goometrical beverity uf diapur． The name is supposed to he tation from Damaterns，ati an－ eient seat of the art，which until the introthertion of the Jacquarl machine（sce lown）was a suedet rontine tol to few localities．＇The towns of bunfermbin＂and Kirkcaldy，and the whole county of Fife，in semthand，are the oreatest cinters of damask or Jicyuard wetring in the world．Lately bel－ fast，Germany，and Iustria have anpured as stronip com－ petitors，while Barmsley and france have buth lont gromand． Courtrai and Ghent are famons for sheetinge and dine shist ing linens．Cambric，which takes its name from Camhrai， once famous for its jrohluetion，is thr finest and thimment of linen fabries．Wandkerchiefs made from this cloth ramge in price from $\$ 1$ to 820 per lozen．The su－tallad soutch cam－ bric is a cotton fabric with the fibor twisted very hard．
Some velfets or $\mathrm{p}^{\text {hashes are also male from thax．and used }}$ in the printed state ascurtains，table－coters，and mpholstery goods．France furnishes most of these velvets．
IIessians or burlups are made from jute，and are usel for all kinds of base，for pracking fmonsess and for makiner tar－ paulins，and fomdations fur door－cloth．Fromele cumbes is a coarse variety，much wad by taikers for stiffeninge ute． Crumb－cloth is made in Sootland on Jacepard lomms．ind is used for covering carpets in rooms and stairs；it is woven as wide as 4 and 5 yards．

The modern jrocess of beaching has somewhat hossemed the durability of linen，hut at greater hestroser is the pre－ vailing syetem of laundry－work．The lessenel cost of linen， however（ $\mathrm{\sigma}$ o per cent．），eompensates for the we wils．

For a time the rapid incouse of whom－mamufactures un－ dangered the prosperity of the linen－trale（and to some＂x－ tent the are antaconistic），but，althomph the manatacture of linens has not k＂pt pace with that of its cheaper rival，it has excended its former promortions as one of the ertat staple industries of the world．
The $U, S$ ，has not made any approciable procress in the manufacture of limens，save a fow comare crashes and towed－ ings．Practically，the manufacture of linems has not bewm， and the out look is mot encouraging for many reasons，sucli as elimate，unprofitable returns for very hatid work in the preparation by the farmer of the flax fiber for market，and the diffieulty of grass bleaching under a seorching sum．It present the flax is raised for the seed anly．＇The innumits ut flax amd flax－mannfactures into the $[\mathcal{C}$ ．S．for the year 1 n ，t had a value of $324,000,000$ ．This included burlajes abmut令6，000，000．

Ling［D．Eng．lenge ：Germ．lünge ：lowl．lengre．So called from its lemgth．（ti．（）．Fing．lang，lomer ：a sia－fikh of the cod family（Molea moleva），extensively caurht in Europe． It is eaten fresh，or salted and dried．It is a rathor ta－telesa fish，its vahe depending to a great extent upun the perfect manner in which it fakes salt and the deneth of time dur－

ing which it can be preserved in an entable state．Split amel salted on the spot，it is lacked in flats at nome．It a lleals is also preserved in ajr－tight tans：it＊sommds arm u＊inl fur isinglass and for fored：ite row is a monl fishotat：itc liver Fiedes a valuable oil．The name ling is also appliend to tho Gurbot（Lote lota），a fresh－watur fioh if the am？family fumat in the rivers of all northern regrons．It math remombles the true lingr．

Levinal hy I．S．Jommes．

 rather adrenturoms life，traveling throuch＂armany amb France：became in 180.5 fencingemature at the thiseraty of Lund，in 1818 teacher in fencing at themilitary schood of

Karlherg，and in $1 \times 1.4$ direrter of that mowly weredelym－

 of the swedish deathoty，Ling lepresomb the samm mons－



 （1sl！），dramatiziner tho whold of Rwolinh histury，wre in－

 dinavians：and his grymartin exereine worn at dir－t simfly a means of develophig amb themethenime the buly，bat by







Linga，or Limgan［Limgam is the bent．nom，of as san－ skrit crube form limur，meaning mats or quken］：in lifmin－ ism，the mala organ of gemeration，the whblan of the repro－ ductive power of siva the Romencrator．It is worlapelt in the form of a phain enlumn of stome or conde of clay rixing out of an owal stone revresenting the yonior fomale organ fif generation，set nu in templos dedimatom？to siva．At the time of the Mhammertan consuest of ladia，in the efeventh century，there were twelre ceblerated lingas at diterent pacen，the best koum of which was that at somarnaitha in Cinjarat．
le．l．
Lin＇gard．．ons，W．J．，Lh．I．：hiotorian：b．at W＂ineders－
 dained a Roman Catholic priest in 17aj：was aftorward connoted with the seminary at Cshaw，noar lhorham ；was
 tardinal＇s hat sum attere the publitation of his orvat work，
 robo．）．This work is one of ereat ability and esterlemee． though somowhat coldond by the religions viens of the writer．CJtramontanists fmat it tantol with（rablicanism． It has herm tramslated into（iermam，Fremeh，ant ltalian， and shond always be eonsultod for the viow of a eomacien－ tionsand ermbite loman（＇atholie．The work was viguroms）y assaled．apectally by The Edenmeryh línion：but the de－ fense of the anther showet somulh monderation and learn－ ing．at well as hesire for the truth，that the critieroms of has aswalants tombed to strmaghen sather than wabern eondi－ chence in the work．Author of a Mistory whe I letignities of



Revistel by（．＂N．Inavis．
Linge，Mermans ：poet：1，at limdan，Cemany，dan，20．

 dewod himadf enitimely foliterature．In asithin fir－t eond－



 miljan 1l．nf Bavaria asemblal in luniwh．Lintrés luat－
 fiv）．Bucioles．he phblinhed a mumber of dramas amd movels whim pomase tors fortic merit．


## 




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 honer fluth tatk or pedumbe，whieh is huriol in the simd．









 fommathers which i－pumbly correlated with the vitalisy of the rater

I．S．Kimembe．








 of horn than of（ruc hedy mather．The fandy is wery in－
 comparatiody unatored fomme from the Lower siburian
 Lenorically ditimet from the lising Limgeta，athongh the apparent slight hifferences maty the reoult of the simplie． ity of the shell．


 fion and atminimator：hat Nont，Dewx－meres，Framen






















Linlithrow，lin－lithero，or Wid Lothian：commery of















 J＇op of town l，151．

Dimo．Joms latar：cleresman aml anthor：b．at Ship－



 the dhan street thater，Now York，an＂arime drama，inter－







 novelist．＂harles limehden lirown，pullished，with a hrief mumbir，lith rim，a harrative jumb by bim，incomplete， bat extaning to 1.510 line of blank weres，treating of the carly arugere of Chritianity arainal pagaism．

 flower，of the homevelio family，fomm by limatus in
 Irabing evergeta herth．with rombl baves occurring in pairs in des alow the howare，which are lanl－shaped，of a pinkinh color．and very fragrant．It abmals in the more

 （＇alifarnia．

Limmerns，the Latinized mame of（＇abi，von Linsé：the fathor of oratematio botany：ho at lasjult，in Smabund， Swann．May 1 ． $180 \%$ ．In was the son of a hatheran vicar．
 tor a shamaker．bint sum aftreward seal him to Wexii）to ahom，where his fombusc for matmal mene made him so rabrese of his other surties that his tembers advised the father to fut him torme trinte：lat Rothman，the doctor ＂f the phace．tonk the bey into his homse and gave him books
 Fita tuland，where he rem buks of botany under Prof．

 forol muth itw hanger and colld．and twing withont money ur frithats began to diepair，when ohaf codsius，I rofessor of

 and introducol him to lindmek，whon atesiant he fecame． In late he explored Lapland moler the patronage of the Arademy of selences，and rathered material for his fora
 Hardarwyk，in the Low Comutries ；resided at llartecamp






 fromer of Mediciam al I pala，and was l＇rofasor of Bolany


 lois．landas the work athere mentionod，his principal


 womld be hat to oreretimat＂the importance of the work



 －10 therin with tha puthioation of the lirat alition of Lin－

 I．F：，smith，the time promidnel wh the bimman somety in lampons，whin aha tramalad hin lathesis lapponied into burlish（1811）．







the ehanges in their plumare during the browliner swason. North America has several hirds allied to the Euroman linnet and similar in fowd and hahits. For grown linnet see Green Finch.
levised by 1. A. dmonas.
Linoteic Acid: an acid of the formula ( ${ }_{18} 1 I_{2 k}()_{3}$. fomm in combination in linsed oil and l"川ny oil, from which it is obtained by saponifioation. It is a limpin ail uf suatice gravity 0 ge at 14 C., of a faint-yellow eolor, at slitht and
 of oxygen by long standing, amd thickens so that it will hardly llow, but remains coblorlons, and forms a varnish on wood. It is due to this pewer that drying vils have their property of hardening when exposed to the air.

1. R.

## Limo'lomin: Sce Cakrets.

Linseed Oil: the oit of flaxseed: extonsively used for all kinds of painting, for making oil-clothe, oit-silks, primer's ink, ete., it. manufacture britug a most important inhsatry, and the parent of many others. The oil-mills mot mily comsume the greater part of the spel raised in the U. S., but large quantities are impurted, especially from the East ludien. The sed is erushed and submitted to great hydramic pressure, by which the oil is for the most part removed. When the seed is not heated the oil is light colored, and is called cold-pressed oil. When, luwever, the sect-paste is heated after grinding. and pressed while still hot, the uil is of a little darker color, but it is much more rapilly and thoroughly removed. The paste in this operation is heated by steam, and brought to at temperature not murh higher than $212^{\circ} \mathrm{F}$. It is placed in strong cloths or bars of "qual size and holding equal quantities, which are placed in iren cames and laid up under the presees, where they are subjected to a gradnally increasing presine, equivalent at kenuth to a weight of 300 to 800 tons. The cakes from cuht-pressed oil are reground and heated with the rest. The total prownet of seed grown in the U. S. in 1890 is extimatal at $9,001.040$ bush. The amount of linsed imported in the same year was 2.391,15 bush.

Revised by Iba lizmaze.
Linton, Eliza Lysy: wife of William I. Iintom, engraver; b. at Keswick, Cumberlam, Englank, in 1xis : pablishet a novel. Azeth, the Eygption (1vi6); Amymone, a Romance of the Days of Perictes ( 1848 ): wad liealities, a romance of modern life ( 15.51 ). She has since been commeted with the press, experially The sutumby Reatex, in which her papers on The Girl of the Period attracted sreat attention. Anmer
 ing the Hind (1866): The True Mistory of Iosture Maridson. Christian and Communist (14T2); P'itricia Kembull (1).t); The Rebel of the Family ( $18 \times 0$ ): I'aston Curere ( $1 \times 6$ ).
Linton, Wheias James: womleneraver and anthon: b. in London, England, in 1812; was apprenticed to ti. Wr Bonner, and in 1842 hecane part ner with Orrin smith: was first engaged on The Illustrutml honton Tems, and did tho work of ilhustrating Jackson's Mistory of Hood-pngraving. published by the proprietors of that joimal. IJis ham is seen in The Lake (ountry (1s6if) anil in the busk of 7he ceased British Artists isumb in 1860 by the Lanchon Art Union; in losiah G. Hollamls Kutrime (New Fork, 1xG!): and in Bryant's The Flood of Cenes and Thenotopses (1sis). Mr. Iinton, though eminent as an engraver, is st ill hetter
 Other I'um.s (London, 1N6.5): The Enylish Remblir; The Flower and the star (1soston, 1sis): Some Praction! Hints on Wood-engreting (1xit): Wood-pngreting, " llument of Instruction (1ssi); Poems and Translations (Ix-9): and papers in The Westminster heview. biruminer, imp Shethtor, mainly on sucial topics. He elitecl Rure Pamesof the Sixteenthand Seventeenth t'putures (1-2), and with Li. Ward
 youth a zealous Chartist, he was intereetel in the revolutionary plans of his time, was it fricm of Mazaini, centered heartily into the cause uf tho british and Euron"an workingment and defented the lirench 'ommune atainat the aceusations of its enemies. Since 1 vifo Mr. lintom has rosided in the U.s.
 a genus of plants uf which the (mmmon Finas ( $4, c^{2}$ ) in the most impurtant. It indules suveral flax-flants not anhi-

 flax, foumb in the western part of the L. S., ernsine is inehes high, and forming tufto of slomare tame with whamate blue flowers; l. grendiftortom, a Leantiful ammal foum in

Algiers, with abondant sarbot flower: 7, floman, a grern-
 Which have yellow flower.
 Pishop of fome after is. low r. hat it is dombent whether




Limus (in (ir. Aivos): a prombage in (iterk mothntery uf
 hy the ['rincess P'amathe. Tor exape dequetin l'amathe "xposed the chin, who was raied by shondurde, that whon growing into manhmal tre was torn to pheens he his won

 canse he dared to dispute Apmilos suprematy in madie. Ac"ordiner to anther versu. Limas, a celd brand minatred. wa- lain by 1 leracles, who was instructed by him in masic. and in a dit of impatienow killed him with the lyre. lo each version of the myth Limus dios a tiolent death. it is comceded now that the wad Limus dis] not refor to an impinidnal inrom, but was the name apmided to the diraes that were sung throughont Asia in conmemoration of the pemature drath of the husbamfon ('Tammuz, Halad-limmon, sandan, Atys, Alonis. ote.) of the great Asiatic mother-goddese known to the Cireeks as ('ynde. Khea, etc: Sone think that Linus wik the persumification of a flower like Jarmisus and

 Mythen in ithen Bezifhungen zu den triontulischen lifli-


Linsan'ti: a native town on the Cholve tributary of the Zambeni river, Afriva, contaning. when hivintotonie vinited
 trank in suath Central Africa. This fact drew to it a party of mis-inmaries, men, womm, and ehildren, hearly atl of Whom foll rictims to the pentilantial climate: 'The annihilation of these pionores made a derp immonon, and is the sole reason why Linganti. surrommbal by swamp, is still rememberel.
Linz: city; the capital of the peorince of tilner Aus-


 nected with eard other by subterrancan alleys, in mot ho of fortifation inventel ly irchluke Maxinilian of bate, but supersedfel by later improwmonts in artillery and now contirely abandonet. It is tha soat of the presinalal ansernment and of a bishoprie, has a the homal saminary and two
 Immaculate (innception thailt 14fo-9m. It hat some mamo factures of clothr, carbets, silk, bathery, whllawe. pather, and
 licinu libery was eraitul hy the Empern ferdinand to Hungary. Pop (1001) 4 7,060 .


 the Furn"ans from some unkmom somerel: ne vo the
 fannily, a full-grown malo Inthe a litho wer 10 foot frong from tip of mom atip of tail. The female is maller, The
 nearly miform wer the Indy, variwe from pale yellowinh
 promedice andmilatine with the sam!, or sumfrial gram of
 ant remain so for som time. "the tail is fuptat, and the'
 the thanks. The mane hasins berow wher the animat












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 The prineipal tanan i- betmok.

Lipui, hay

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 ing at the vindon wath was hatmal to the pupil atho. Ilin
 lral of Prato, luthim the prineipal altar-1he History of st Stephen on wae silde. the hift of oluh the binptist on the wher. In a pheme sablery of the same then is at pieture of









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 alint. líveli, sterges.


 hat lival ehintly in lhatmphan and Xisw York. she is well known as a wrim tor thildren under the pathdonym of


 Puphn (に5): Heps, and Misholys of a Tour in Einghand



 a coreanhdent of hatine Now Jork newspapers.

Liprsins derte (./ust Lifs): clawical schohar: bat



 at Lansain dath; at berden in 15:9: resigned his position un main folurning for ('itheliciom, taking the chatir of Mis-
 fun torgiveration and genaral hack of ethical equipuse eath net command repect for hom as a man, hat as a scholar he calls for mopualitiol atmiration, his pesition among the gratent mpendatives of chasial learning heing undisputan. Inincodition is phenmenal, and his erition acumen of the hishot order. Hisedition of Tacitus, whom he knew completey by hart, is one of the mometal masterpeces in the field if chasjeal philology. It was published for the first
 other work the best known ate edtions of Vedleins, Valerine Maximus, and satal. Lifnius was but an indifferent Cimen ahoher, and, hike his grat contemporary Casaumon, he had tut little symphy for chasion poetry. Ins works




 dir chess. Ihilul. in den Vimerlenden (1中, 24-29, 32-35). Alfreb (ituemin


 promor extamdinary : in 1 sid ordinary pofesom of The-

 nologie der rämischn bischafic bis zur hitte des rierten
 wischichth (1-ia): Lethrouch dor eronypliseh-protestendischen




 anthor of lirammetiond shaties on biblical (iret--llis


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liequed has. D, dackson.
ligurfarfor of hases: the comberion of gases into the lignid form. Since the bulheremint of all liquide is rased

 and bure or hem rembe lion their boilogepant, it follows

 Whand. Fiamblay was of this "pimion, amd made extembed



gen, he found it impusible to ligurfy at the lowest tomperature he was eapable of probucing. This temperature
 cartundioxile. The realting liguil evameated with grat mapisity when phated under the hell- jar of an air-pump, ame the temprature tell to the pint juat indianman Oxyen. nitrogen, and carton monoxik, even muldr fresures of many atmushares. rematimed in gascons finm at his low


 permanent gases retained their form. 'Th" reason fine the failure of Faralay, Natterer, ambl of uther early "xpurimmat ers, berame aplarent when it was shw hy the invetigations of Andrews that above the critical temprature all histinction between lignial and vaper dixalpars. . Thewe this temperature no amont of pressure will suthice tolingety a gas. The eritical temperatures of the gaves alrowly mentioneal hay below the range attanable by the use whe the mot ing mixtrive the the command of latalay and of hi contranporaries ; consequently all ittemptes werp necesarily unsuccessful. It was not until 18 os that these sater- were finally lignefied. On bee ot in that year it was amomacel liy Dumas at the sitting of the Acailemy of scienmes, in Parithat Cailletet in that city, and liont, in Gunera, han hoth succedeal in liguefring oxyen. J'he cailtet methon was a comparatively simple ane. The cras was cmpremed in at grase thle with heary walls to a pressure of athot :00 atmowheres. The glase fube containing the comporen gats
 relieved trom prosure ify the onening of a thpocok, and the resultant fall of temperatime was sulficient to fill the interino of the tube for an instant with a denne foge consinting of particles of the liquefiet anal posilhy of the frozen wsy gen. Pictet's proces was mone complete. and the remult obtaned were much mone atistactory. A domble combinghath was used comsioting of sulphur dioside in the lirpuiel form, within which was flated a bath of cempurand dathan dioxide. The apmarat was wo constructed that the latter was entirely surrombed hey the sulphar dioxile laith. ley means of siparate pamp the compreston of thear ahstances ( $\mathrm{CO}_{2}$ :min s$)_{2}$ ) was kept up continally to fied these bathe, while other pumps.also contimonsly in at ionn, mamainol at racmum in the vessels in whely ther wore pated. Chater these conlitions the sulphur dioxide efll hy the emoline cticet
 in the imer bath sank to -140 . The gras to be liguction was compressed to over 300 at mompleres in a clacs tulno this tuln being conled by contact with the carlum dioxilu of tha inmer bath. When the pessure watsuldaly rentuced it was converted into the liquil form flowing from the tufu in a jet. subsequent heveloment of these promeses, with the intron hetion of a new cooling substance, ethylone, a liguid whim hail. in the oppu air at - 105 , and which cam he further rellowal materially in temprature when made tolnil at low pres sures, have made it jussible to liquety both oxyeroll and nit regine and their mixture (atmopheric air) in large quatitis.
 methorls an! lydrugern is the only subtance comomine the lignefation of which the evidence is in the teat meat wre unsatistactory. (ailletet, inflest, shemedne in 1sat in coobinge compresed hedreren in a bath of hoiline usyeren. and he observen, when be reducell the prembe midany;
 placed the tinbe of compresed hyalrugen in a batls al nitragen boiling in vacho. When he sumbuly diminislay the pressure upun the healrogen from 160 to ahnat 10 athme pheres, it went over into the form of a colorlew lipuit. In
 mining buth the eritical temperatmen and tha lailineranint of hydregen. He found the rritheal temprature th be
 Institution in Lomdon 1’rat. Inowar han an apparatu- la means of which liguid oxeron and nitrugen are perpared in large quantities. The phytical proprotinof therentistano...
 have been st ulfed, and ther have hern heop then condinem one
 foum by bewar to poses maphet promatilit! inforion only to that of the metals of the itom gramp.

By plating boiling oxgert in a vemel with wath of a
 power, surmandeal by a bachum, wo that ne hat lomo maty oceur by convection or conduction, the lignin exapumatio




 losw of oxysen luring tramit wa-small. E. L. Nomoln.










 F'rnitignan, from than ath of France: amb Alation of 'fin--





 liphen are made in tertan great monatic extehtionment-

 much ahmired in Tuscany: amb there atre many othore of similar lual ripute.
hionelanchais.

## Liguidamhar: Se Gev-ther.

## Lifuldated Damages: see Preabry.

Liguid Diftusion: a phenmenno which orenre when

 that two liguish. Which at firt hay have prsamed at charly natiken surfare af livi-ien, mis yery gralually with ohic

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Whtugh the liguiat tath is intermediate between the

 of the satme thathrial when fram or in the form of vapor．

 － van wos．The index of refation of ien is $1: 31$ ．of water
 as the innompesithe flans．They are however，capable of mon－mathe componam．They puscos，in fact，less resili－ －Dew of rulum than many sulits．
The following talan from Evert $1^{\circ}=$ Inits and Physical
 certain liquin．

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| LWど1D． | Corfictent of resilieuce． | Compruslon for on nutgadsue per ctin． |
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| Yaroluy dinl | $\therefore 2.8 \times 11^{11}$ | $1.4 \times 10^{\circ}$ |
| W：ater till $1 *$ | $\because 31 \times 10110$ | $455 \times 10^{-0}$ |
|  | $\sim \cdot\left(r \pm \times 10^{1}\right.$ | $1.45 \times 10 \quad 4$ |
|  | $1 \cdot 10 \times 1010$ | － $91 \times 10^{-8}$ |
|  | $16.16 \times 1010$ | ti $26 \times 10^{-8}$ |
|  | \％ $30 \times 11^{10}$ | $4 \cdot 30 \times 10^{-8}$ |

 Sted，realionce of volume $=1: 911 \times 10^{12}$ ． （injur．

$$
=1.6 s 4 \times 10^{15}
$$

Thu＂mane of watwer in of special interest on account of the inthume of its comprosibility uron the oceath－level．




 Hhan bill fout halow thal whill would exist in the case of a Arictle innmproild thid．

Ih it of fuxion is al torm by which the fact is expressed that in pronite from the solid the the liguid sate detinite

 Har failnwins tath

TABLE $V$
STHATMACE

W： $110 \cdot \mathrm{~F}$ ，at






| llat of fusion． | Sl BStance． | Hest of funtols． |
| :---: | :---: | :---: |
| 7！： | Brommar．at－i $3^{\circ}$ | $16 \%$ |
| 413 |  | $13 \%$ |
| $1: 5$ | Tin，at ざっ＊ | $13 \cdot 3$ |
| $1 \pm 3$ | Ricmunta，at mede | $1 \% 6$ |
|  | Intimas． | $11 \%$ |
| $3{ }^{2} 1$ | Sulphur，at $11.0^{\circ}$ | 04 |
| 3.15 |  | $5 \times$ |
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| 3！ | Muratry | $\because N$ |


 mather han mat of the fat of vapmization．This quantity，


 vapmization of wamin liquils：
＇I $11: 1.1$＇ 1 ．


The following tathle，dedural from the results of Res－ nath，under the assmuption that the sperifie heal of water in the liguin form is a constant，will sirve for illustrate the falling of in heat of vaporization with rise of tomperature：

Table vil．


6142
53
5
53.11

23：
415

It will be seen that in Tables $V$ ．and VI．num h the largest values are thone for water，which sulstance alon，as will $h_{\text {t }}$ noted from Tuble VIll．，possesses a wry much greater specific heat than any of the ordinary lituits：


| slbstance． | Kange of tumpersture． | Specinic teat． |
| :---: | :---: | :---: |
| Lead（molten | $3411^{\circ} \mathrm{C}$ ．to $454^{\circ} \mathrm{C}$ | 10194 |
| Bromine | $13^{\circ} 19.045^{\circ} \mathrm{C}$ | 1911\％ |
| Phosphorus | $44^{\circ} \mathrm{C}$ | 11.24 |
| Mercury． | $10^{\circ} \mathrm{C} \cdot{ }^{\circ} \mathrm{C}$ | O1033 |
| Sulphur Bismuth |  | 疗－34 |
| Tin．．．．． |  | 010 mas |
| Alcohol（ $\mathrm{C}_{2} \mathrm{H}_{6}{ }^{\text {O }}$ ） | $16^{\circ} \mathrm{C}$ ．to $31^{\circ} \mathrm{C}$ | 0612 |
| Carbon disubhicle（CSat．．．．．．．．．．． | $11^{\circ} \mathrm{C} .4 .295{ }^{\circ} \mathrm{C}$ | $17 \cdots$ |
| Chloroform（Clicls | $15^{\circ} \mathrm{C}$ ¢ $\quad 310 \%$ | 0233 |
|  |  | 0.546 10.42 |
| $\begin{aligned} & \text { Acetic achd } \left.\mathrm{C}_{2} \mathrm{H}_{4} \mathrm{O}_{2}\right) \\ & \text { Benzol }\left(\mathrm{C}_{8} \mathrm{H}_{6}\right) \ldots \ldots \ldots \end{aligned}$ |  | $10+162$ 0 0 |
| Water（aveording to Regnault．．．．． | $11^{\circ}$ | 1 －они） |
|  | $51{ }^{\circ}$ | $1 \cdot 1012$ |
|  | 14.40 | 1.1130 |
|  | $1516^{\circ}$ | $1 \cdot 10 x t 2$ |
|  | 2110 | 10440 |

Nearly all liquils，with the exception of molten lipmids and certain solutions，are capable of tramsmitting light． Since rays penetrating them are retarterl by ilifferent amounts，accorling to the wave－length，tispersim ocenrs as well as refraction．Table $\mathbf{1 X}$ ．presents the inelex of reliac－ tion of such liquilds as have heen systematieally studien，for the wave－lengths corresponding to the Frambafer lines． The data given here are confined to the temperature of 1.5 C ． Fur corresponding values applying to other tompratures． the reater is referred to Landoit and Bernstein（Ihysi－ kalisect－themisthe Thetlen．pi，3（6）－309），from which work many of the mumerical data of this article are taken．lour the refrative index of certain liquids for longer waves，see



| W゙A！E－ LENGTH． | $\mathrm{CS}_{2}$ ． | $\mathrm{CllCl}_{3}$ | $\mathrm{C}_{2} \mathrm{H}_{6} \mathrm{O}$ ． | $\mathrm{C}_{4} \mathrm{H}_{10} \mathrm{O}$. | $\mathrm{C}_{8} \mathrm{HI}_{6}$. | $\mathrm{H}_{2} \mathrm{O}$ ． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A． | 1－6114 | 1.460 | 1．3660 | 1 －35：4 | 1 29615 |  |
| H． | $1 \cdot 61 \%$ | 1.4154 | 1．3612 | 1．3545 | 1 ． $411: 3!1$ |  |
| ${ }^{1}$ | 1 －40319 | $1+16$ | $1 \cdot 36: 21$ | 1－35\％ | 1 －14．55 | 13316 |
| 1. | 1－tisu． | $1-414$ | 1－36：38 | $1 \cdot 3.065$ | 1．51H： | 1．33934 |
| E． | $1 \cdot 6434$ | 1．4．05 | 1－3661 | 1 （5）${ }^{\text {a }}$ | 1 ． 54419 |  |
| b |  | $1 \cdot 4.38: 3$ |  |  | 150 s |  |
| F | $1 \cdot 6 \overline{5} 4$ | $1 \cdot 4$ | （ $3+3 \times 3$ | 1.3 bliti | 1－51：4 | 1－33： |
| G | 16794 | 1 1411 | 1－370 | 1 ， 3 ajpi | 15034 |  |
| 11. | 1.41035 |  | 1．305 | 1－3゙心3 | $1 \cdot 58: 1$ |  |

Phenomenn accompunging change of state are among the
 The properties of lípuids differ an steaty from thane of solids on the one hand amb of gases on the other that the


Fig． 1.
melting and vaporization points are puints at whith very sudden chaneres munt oechr，the ahrugtume in many tass amonnting almost to disoontinuily of anmlition．Aethat








 case of solphur．liis results are pesembed wraphably in


Fig．1．Water afforls a more fambliar amd mome remark－ able instance，the conefficient being revorad tom a pooitino to a moratime value at 4 ，as if in premation for the oreat
 vaporization alsa this tendency shans itself，partimarly in proximity 10 the critieal temperature the comerient of ex－ pansion of the lianid rising to extraordinary values just be－ fore the changre of state aceurs．The ciassionl moisure－ ments of Ambrews exhibit this prop erty in the case of carbon dioxilfe in the most strikingr mammer．心ッツ Fig． 3．）This reprents the chathere of yol－ mame brourht almat liy changes of pres－ sure，the substamed heing mantainor at a comstant temb perature．It will In moticeri that at



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Fig． 6.


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Fig： ite halance throne of the otrongar film．A drele of oil ap－ flad lo the miface without will roluce its tension to

Fin

ner film altogether ty piopeing it with an sinter of wornd. The suter film instantly drates the looge of threal, which mow forms one of its bandates, into at that ring. (hede Pig. 9.) The analogy botwen the twouperiments is comphete. Whan the surfare film comes into anatat widn any
 brought into phay, the result is cetpillary action, with the many striking phenome na that are clasified mater that head.

## d. L. Nishols.

Lignorice, or Licorier [riâ O, Fre fron Lat. lifuirifin. by analugy of liqutre, te. (ste Liputime), from (ir, jaukúp-
 (remo. lakizze]: the drient extrat of the mat-of dilypyrrhiza gletrat and echindto, leguminous herbo of southern lisury ${ }^{2}$, Africat, and Asia, lamely coltivated in rentral furone. The extrat is a hart, bhack maso. containing a large percentage of an marrystallizable sugar aillad wlyaryrhizin. It is prepared rery extemsiwly in spain, Italy and Russia, and to some extent in Framee, Engramb, (remany, and the U.S. It is a valuable dempleent and expectorant medicine, and is employed cxtensively in thamone chewingtobaceo, as well as in pharmaty as an excipient in pillmasses. Thu hard, wooly root is also ured in medicino and in porlor and stout hreweries. cilyryrmize lepilutu of the western parts of the U . S. hats the flaver of trie liquorice, as have Galiam cireuzans, $i r$. Inncoluthm, bete, rabiacens herbs of the U.S., which are used in domestie medicine and called "wikt lifurrice."

## Liquor Nanguinis: see Blood.

Lishoa, Balthazar da Nilva: See Silta Limboa.
Lisboa, lesebaia, Jozo Franclso : author: b, at lguará, Maranhão, Brazil, Mir. 릉, 1ste. He was destined for vommereial life, hut drarten it; manamed to obtain an edmation, and was long a journalist. supporting the libual party. In 183.5 he was malle secretary of the province. am in $1 \times 35$ was elected to the provinctal logishature In 1892 he 1 wran the publication of a kind of litarary magazine, written by himself. and callant the Sormal de Timom. It comsisted of political and satirical ensys, amed at both parties, and of historical papers-sume of the latter of great inportance. Twelse numbers, or vommes, wre pmblished, of which the last two, issued at hivmon in 1 sis, ate therated to the history of Maranhan, amb contain many arifinal documents. fin 1856 tha imperial Goverument sent Listha to Europe to collect historical documents, and while thus engaged he died at Lisbon, Porturil, Apr. 36. 146;), Ile left neveral works in manuseript, of which one, Vide do P'udre Antomio Fieira, was published in 18 .4.

Heribert H. Sinth.

## Lishoa, Joré da silfa: Se Sillya Lisboa.

Lisbon [: Portug. Lishom <Lat. Olisipo, the ancient name : capital of Portugal and resilenee of its king: one of the most important commercial centers in the word ; on the northern shore of a bay, Rada de Lishoa, 4 miles Imont, formed by the Tagus at its influx into the Stlantic Ocoan (see mat of Spain, ref. 17-1). It is 9 miles from the month of the Tagus, and is 412 miles ly rail W. S. W, of Madrind Built on the declivities of seven liils, with momerous white cupolas and magnificent monnmental buildings towering above the mass of 43,000 houses, intersperad with lovely terraces, Liston offers, when aproached from the sea, an aspect at once charming and impoing. The thy froms a harbor large enough to aremmmate it the same time :ll the dlects of Europe, and so dep, that the larest ship can anchor immediately at its dorks. The cotrance to this harbor is defondell ly several forts, of which one. consisting of an interesting old"Morish tower called Tore de Balem, is situated on a sambank in the bay. The rity is 10 miles in circuit, and is divided into finm quatiors-Alhama, Rocio, Bairro Alto, and Aleantara-hesides aberald extensive suburbs, inchaling those of Belemind olivare, annesed in 18s. The ohe city especially the tuarter of Alhama, has irregukar, narrow, and lamk strents. Tho nower barts. built since the great earth!nake (Now, 1, 150.5. whech did not reach Ahama, are more resular and bemtiful, and antain many palace-like huildines. Tha finest part is the quarter of hordo, extembine abor the river and rontaining many splembit huidings ant bun phates. Amome the squares the Pragathe Commercio is tha mat panamatha, wituated on the Tagus, enntaining in the renter the "pustrian statue of Joseph [., and surroumled with matrifitiont hailaings, the exelange, the roval library, the umbermonse: the market-place is notewortly also, ami the immane plate


 farther to the N . strother the pindic promemate. The





 hadse the ment remarkathe hmilding of bue rity. lt was

 its style is a mixtme of Monish, Byamime, Soman, mme Cinthie cloments. The material is white limethene, which
 ful part of this bialding is the chureh, which embans the
 is used as a luspital fur fommllinge and ophathe. The
 thre, fombed in 1 ard and promided with a shemed elpula
 Rone: furthermare, the 'hure of the bat riareles. with its
 the marble 'lureh of 5 limpue: the hasilica of S. Maria; the Church of Carmo, in Guthie style: and the 'hurelh of $\therefore$ Vincent de Flora, the largest of the rity, and the burial1hace of the dyaty of Braganza. The tom remarkatle palabes are the royal palace of $A$ jubla, the palace of Nowa Senhora dat Nocesidades and the palace of lamporat. Other noteworthy hoildines are the theater of s. Carlos: the mational theater, whirh was formerly the gelate of the
 and the palytechmic schom. Thle ellurational imstitutions are very nammons: theme are shomls of every kind, inclading a military and a haval shomb, ath acembery ot erience,
 history, amd a consenatory of mante. The dity remine its water thangh the Alantara aquethet, constoded by Bmanmel de Daya. The matin stream comes from the villace of Canasals. Dit miles from liwn, and traberses the valley of Aleantara on thirt y -five arrhos. of whith the largent has a height of $2: 30$ fret ind a dianneter of $10 \% \mathrm{fret}$. The promenate on the telp of the aglueduet offers a mose leantifral witw: The (ialleqos (spaniatle from falicia), who cary the water from the varime fountan* throughout the city, act as porters and pertom other swices form a curperation of their own and number almat sango. Tha hilly surroumbings ant the mountain rexim of cintra aro full of chaming ralleys, interesting paiks, and hantifully situated churcher, monateries and mansions. The indmatres of the city are not considerable. Goll amb siver ware and jowelry are manfatured, and pinning and wavinur entahishments. irem-fomblrics and manafactures of silk, lats, Innts, chetery, soneware, tolacen, chamicals. 1 mper, shap, and sterl are in aneration. The commere is vary extusive. Lishan is the liturest pert in the kinglom, and its chatom-lowse is a substantial and - bapions buildiner, in which merehant a ale allowed to depmit their aromio fra of duty for one year. or fur two years in the case of brazilians maluat. Mare than 350 wistle (including coasters) ambally visit the port.

 meren is carried on with Brazil and (ireat Britain, tran ieal profucts heing improd from the former and manfactured croms from the latter: while wine and ail are expurted to Poth. lintwo had existerl as a lionam municipinm mular the name of Frlicites. Intide later on it was takne the the Gethe and by the Moms. When in $11+5$ Alfomsol., it the head of the crusadury congurad and "hritianizal the "ity.
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 latt 4i) 1 N.. lim. 16 is E... in the Thahatian Arehipulago. Irat, an miles. P'op. a!no. The fortifications of its I wo hartam-mperially of that una the tast sile, near the shall thwnof lissa-are so strong that they ahost rival thowe of Maltia. This bamd wat an importani naval alat ion
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Lissa: twon: in the powine of Powen. Prusia; 40 miles She ll: if lisen (ox map of (icman Empire. ref. 4-11). It has harge liguour, was, and thater fatories, a celebated bell-fomdry and extenive manufatmes of woolen and ling of utf:. ha the sixtombly contary it was the chief


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mie (1841): besiles a large number of minn artiofes in the papers-hat some weight, but his ideas were tom far ald vaned to be fulty apmeciatel. Lat wathe visitud bingland in the
 tween that conatry and farmany, but dated in his minaion. In a fit af dermadency cansed by this disapmintmon amd he his ill-health and loss of fropery, he shot himself at Kufstein, in the Tyrol, Now. 30, 1826.

Listay Ararón. Alberio: phet : be at Triama at sumber
 versity of Suville, he beeme in 1 and lrofemon of Mathematices in the Colleqio de sim Telma in that cits. Compullen to Hee to France during the pelitical tronbles of the bexinning of the ninctenth century, he returnel in 1418 and
 Catiz ( 8834 ), seville, in which latier phace he was made denth of the philusophital ficulty of the miversity. In 18:2 he published at collertion of puems ( 3 h ad., entarged amd revised,
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 Alberto Lista y Armgin (185).
A. li. Mafsh.

Lister, Nir Josepli, M. D., LLL. D.. F. R. S. : suremen: b. at

 aminations for a feilewaip in the lanal college of surgans
 in Edinburgh, and in $1 \times$ ar in King's Cohlere, Lomom. His
 the idea that patrefaction and whar fementative changes
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 fule has been gratually elaborated from the time of ite an-
 phared mankind umber obligations to its wivinator. to 1sis Edinhorgh University conferred the deque of M. D. on him : in 1400 both oxforl and Combridge comferred apon
 and in 180 was rased to the peerate as lam Kiment. His ('romian bectures in 1860 were on the coalnhation of boxh. In wif: he pablished his uiservations on the ligature of artories on the antiseptic system. Anong this mure impurtant pmblications are litmeritex on a r'ase of Compund Mispoctlion of the Ankle, with other Injuries, Illustrating the 1 ntiseptic System of Trmetment (Edinhurgh, 1500): on the Effecto of the Antiseptic System of Treatment upom the Salubrity of a surgionl IDospital (ELlinburgh, 1N0) : A Coutribution to the (remm Theory of I'utrefaction and other Fermentative Chantys (Elinburgh, 15:5). $\qquad$ S. '1". A.

Listing. Johany bexemot : masiciat; b, at drankfort-
 career as assistant to won Wattershansen 1-34-3: : tancht in the technical high schond in Hanover lor twoy yare: was then apminted l'rotestur of lhyses in the l'hisersity of Gïttinen (1839). where he remained until his heath on boe. 24, 188?. He was know to smene fon his contribution to physishugieal and grometrical ofties, and through his investigation of rertain impratant properties of yane. Ho was one of the tirst to dalmate the theng of thirk lomo. and his work num knots and linkages antiopaten hy nemply half a century the better known resuratue of 'aitit. Ali. emmeiatel a law relatiog to the movennents of the cye in vision, known a* listinge taw. Ha* wa not a raluminome writer, and his work was fubli-hem chatly in the form of

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 Whament: in others nervons dinombers, healaches, nervous-
 presion: in still onthe eases the frominent manifestations are mot with in the urinary systan. Thera may be exoess of wric or lithe acid in the urime, "ither free or eombined with the hases ammonimm, suliom, or limm, and all of these may la danosited as seliments, Frequently this excess of lithir ancin rames depreition in the mrinary passages themselves, and -tone in tha kilmey may oerer. 'Tlae treatment of lhas commlition is directed to the extablishment of a better
 It times patiatives may be called for, bat on the whole aremral flath of lysienice trathent promises the best re-

Most prominont in tho carative measures is rapula-
 Sanmes known to problere an acid combition of the urine.
 thatane of the stomath as well as petmeral disorders: and the fatient is therefore warned to partake of as little farinatenus ur suldarinu fool as may be possible. For lithie


Whlfan Pepiek.

## Lilhilaction: ser (ikolugr.

liflo'inm [from (ir, $\lambda$ loos, stone: rf. $\lambda$ lemos, of stome]: a rase motal. The existence in the mineral peratite of an alkali Aldrring from potassa and soda was discovered by Arfved*on in the lathoratory of Bergelins in the year 1si7. It ocars in lepilolite, spodummen. amblyyonit", triphylite, some tomomblimes, athl wher mineral sperise, and is a frequent consliturnt, in small proportions, of mineral waters. Lithinm Wac tirnt ohtained by electrolysis of the fund chloride by Bunsen. It is a silfer-whatemetal, somewhat softer than lead, and liahter than any ohher known solid body, having a dematy of omly sesin: sio that it thats even on bitrolemm umb mabhtha. It has also the smallost atomio weight of any
 hytrute, corrojmadiar to the hymates of putash amd soda, is as stomely ramstio alkalian forly like these, tat is mot
 Ther smathoe traves of lithimm arm dotectable hy means of
 "f two liats-ane a brilliant intonse erimsom, and the other
 urimant tim, and, ware it eheag emonoth, would be a valu-
 then wh the whamembitio thame colur of lithimm has some-


 1atainafion. In care of furmothon it will sonon be easily




mon salt. It is, howerr, delifuesent, mulike the hatorides of sodiun and potassium, and is mone soluble tham these

Litifim. Medicinal Ciss of.-Lithium cerbonete ami
 been specially recommended in font, becanse of their forming an easily shlable salt with urie atid. In reality, they ate of little value in gont, as they amite more realily with the
 The eitrate. howare, is preferable to the carbonato, from being more soluble and less disargmable to the taste
hevised by 11. A. Hame.
Lifhofractenr: See Explosives.
Lithography: the art of drawing on stone with a themically prepared ink or erayom, or "hgraving on stame with a needle or diamond point and printing therefrom with lithographie ink.

Mistory of the Art.-The invention of lithugraphy is commonly ascribed to Alois senefeder, who in 1 tat first practicel the art in the printing of music in Munch, where he was an actor, althongh it is chamed that simon schmidt, in Germany. and William Bake, in England, heth ntilized tho. same or a similar methen for frohtucing work as carly as 1788. Neither of these two however, fuhy apmeriated the value of his invention. Senefelder hevoted himself to the development of the art, and was the teacher of some of the earlier practitioners. Even the much later improvenents are found suggested in his writings. In 181 h he published at somewhit complete accoment of his processes. About the same time those who had studied of him fommed estahlithments in many eities of Eurome, where very gom lithosraphy was done. Gottfried Engehann, of Mulhouse in Alsare. hat hemp an assistant of Senefulder's in Munich. He establishect himself first in his native place, and then in Paris abont 1417. He also poblished a book about the art and its possibilities. The Baron Lasteyrie startel another workshop in l'aris a short time afterward. Romond Jules Lemerefer was one of the earliest French lithographers. 1lis connection with the art lasted till his death. and his relatives and successors, R. J. and Alfred Lemereier, have remived honors and decurations for their services in this direction. In Germany Franz llanfstinarl rrew un trom bowhon in the practice of lithorraphe. Jewent to laris and worked with Lemerefor, and in 183. undertonk to reproblace the pietures of the famons Dresten Gallery. 'This work went on for fifteen yeats, and resulted in the completion of a very comsiderable worksixty parts, of three piuts eith. A similat work was mudertaken at Berlio bysimion in 1840. Ferdinand Piloty established himself in Munich about 18:30, and fomed it martnership with an artist named loochle. In the work of these lithographic establishments it was the custom to give the mane of the draughtman on stone, as well as that of the painter, showing that it was the enstom to give to a suecialist the duty of producing the lithograph; but many irtists of great ability, and even some of celehrity, fomm it easy to express their thoughts in this medium. Adolf Menzel as carly as 1833 prolucel his trtist's Euth-pilgrimuge. Before that time Géricanlt, in Paris, had some sucersstul lithographe dawings. Carle Vernet. father of the betterknown Horace, was one of the earliest; then came Eurime Delacroix, the yommer Fragonarl, Tony Johamot, Alexamdre Decanps, and llipnolyte Bellanor, and there grew up also some specially competent lithoraphers, trained to remder on stone the work of the adminel artists of the dav. as. for instance, the celebrated Jutien, afterwarl so well kiown for his études è deur crayoms, and Mnalleron. who was 心peeially successful with the pictures of Welacroix. Charlas Samuel Giardet is another such artist of prat albility. Than trimph of lithography, howerer, was in the hames if sumbe artists who devoted themselves of at primpally as tha mbdimm best snitel to thoir arnius and fo what thoy hat to

 artists cherished the memories of the old armine of Namben, and loved to recall in wishome prints and chatap the havery and the humor of the "grumblers" of the "mpire. "laph when the experlition to Alfica ant the subsement wars there mader ('harles $\mathcal{N}$. and Lanis Ihilipln wave them an wow military life to deserito. Ratfet turnal to that, ame published a great mumber of moss apirited compusitions-montels of deseriptive art.
The Materinls I'sed.-The stone usen in lithorraphy is a closely grainel limestone, which is fomm in dilfurnt parts

 the entire word ramiom its -nply, althengh in latre bam

 sults. The lithorapher sume before it i- thiperd frem the

 which they have te matereo in pimingh, and in sige from

 having open veins or salt lime-spots. That stance vary in
 atrke the color the hater the stone.
The craven or chalk, as it is somotimes abllol, whinh is


 tallow candle, and buing uceodingly trithe it is sharmenel frem the puint upwart.
The ink whith is meal for drawiner with the fen on the stome is compored uf the same ingredients as the arayon,
 a phate sutuer, after whill it in dissolsel with water matil it is sulticiontly liguile to flow rasily.

The l'roess.s. The stome is cardolly liveded and grained, or, if it be used for pen-work, phlinhed ; the graminge bomer done thy puting fine samd and watur between two of the stome sliahs anl rubhing then toredher mat the lower and has a grain in notly as patbe rembling the grain of tine Mrwing-panr : the mhnhing is thme with pumice or
 sometimes sulatituted for litherabhie stome but as yet no subatine has bedn disenwed which for pertect working surface equals the stone.
The lithographie stom whom ready for the drawing is so sensition to anything of a greas mature that even to timblh the surface with the finger womble mat it, ame the parm sos touched woutd le liable to print almost the same as thomer ther were a part of the drawing. After the stane has tren graned or polishol, the drawing is made thereon precisely as though it were lecing drawn on paper, thangh newesarily rewersed; but it is of the gratest impranter that no errurs be male, for, while sma slight correntions can be mate after the drawiner hav bern finished. there is always more or hes rink in 小hine so, wine to the sensitiveness if the sture, or the farar if deatraction of the grain.

When the drawing is comploted it is hathed with in solntion of nitrie acid and grm arahis, the obgere of wheh is to knf the grease of the crayn or ink from spanding, anil at the same time to render thas parts of the stame havine no drawing on them nore porne and mone (alable of ationthing moisture. (ribat cate has to be taken not to have the somation either tore strong (or (on weak: if it contains ton muth adid the finer and mome dilicate parts of the drawing may be aten away; on the "ther hanal, shanal the solution be fon wak, the drawing is aft to fill in and twerme heary. It mast hore be explained that the whole principle of lithography rests on the antasmism of ortas" 10 water, and it is newsiary to bear this continually fomim.

After the acid and gum have hecerallowed to dry the stone is tirst washen with wattre amb after this all indication of the drawing is washed off thr stone with harn atime, leaving only the errease of the ink or cravon on the surfare, which being agrin washod, this the with pure water, is how ready Car printing.
 or damp rollor the motiture of ware bedne rapedted ha the grase of the drawing), the printingromer. charged with ink, paras owe the stane, the ink mathally atherine maly to thase phaces where the stome is dry. ar, in ither wards, where the drawing is. A then of paper is then placen an the









Whon, abont the year 1sett, the dimand for lithureathe

 of smaller sulijects (which at one time hat for be printed














 (1) the phalus of the work. Eingrabel work call be transforme the -ame a cravern ink work.









The bak wad in litherraphice pintiner is sinilat on or-















 - Pitronaris.

## Lillomphere: s.e (inmonit.

Lithotomy. Lithot'rily. ir Lithotripsy, and lithol'a






 1.rm lithototy refore to the ohlor tuethen if erushing ame






























 लali may viat -inshe ur matiphe in the Hablur: where

 a fins: hated to a homerchertme. When there is lat a

 hump-rlan in han', ur have any irregular firm. Its sur-
 thatent with pinted "minumes. Whontwo or more are

 If a conforion remain promanatly the carity of the kidnes, it may in the jrumo of it growth become molled imtu the shate of the cavity. Cabuli are met with in both
 in part to the preater facility with which the nuelear coneretin can la expllell from the fomale than from the male bander. No ange is asempl from this malaty: it has been met with in the infant at hirh. and at ail sobsequent In rionls of bife up to the mast alraneed age. Certain lecali-
 mablay by the parties of the trinking-water in use.

It ill imes there hase heon remedies abereated as possessing the promety of disolving the stome in the hateder, ant patiente anlicticl with the disease, maturally shrinking as they du tram the aldernative of a surqieal opretion, have
 ath remedian and hig here perserance in har use have but prefon lime. 'Ther stome las increased in size, and the Alarer from a surgieal aneration has therehy been enhaneed, Whife the thane of reowry have been diminished. The
 mome of cure amb the earlier it is resortet to the better


Lithotomy in a chting ofration by wheh an ofening is made from the surfire of the benly into the eavity of the blather at errain peints where this urgan lies mearest to the surface. "laroneh the apening thas manle an instra-
 retan and hrusht away. This onvation has been in use -ince the mand pronl in the history of smrical art. The "中eration is purfomed aceoding to two jrineipal methods: (1) The hepugatric "r suma-pubic methul, hy means of
 ing made at the bwest print of the ahdomen, exactly in the modian line ot the beny. and abow the publis. (2) The perimal on suth-phic methoul, by whes the bhatder is reached
 and the seman, in the spare known as the gerimem. This
 saffer aml the one of wider application. It ahmits of three variaties in its monde of exerution distinguished fromeach uther hy tha ditherent directions in whith the incisions reguired for its fermmane are made: First variety, known an 1 he median aprotion, in which the ineision is mate exat tly in the modian line of the princal sper betwen the amas and arothon. Secome variety. Homed the lateral optration, in which the ineision, heriming at a pant in the medint line in trent of the anus. is carried obliquely outward and harkward to the lett side of the mus. Third varioty, hown as the bilateral opration, in which the in-
 frent of the anu- and to an cepal distance on citber side of the mediat line. Liath of there varieties has hat able and
 huwner. lue Antominel by a judicions diserimination of
 liy the :

Lithotrity, or lithotrifsy. is a blowdes: oneration hy which a shan in the bidher is reduce to fragments small enough 1., be expellow throngl the mathat emal in urimating.









 - Mh
proposed by for. Civiale for dratruxing atube in tho hlalder
 surerery, lammathe to the allithor, inm canambatary to hat manity ; that, notwithstamline its insmblowney in shme far-


 resources." After a test uf fifty years the expmotithas *xi-

 art. The operation comsi-d (asmbtially in the intrombetion of an instroment known as a lithotrite. of alapond shape and size, through the natural eamal into the blathom. With it the stome is sedzed and (ernshat hy furesine exaytud with the hand alone, or with a screw-power that may bu alplied


The lithotrite: $a b$, jaws ; $c$, stonr ; $a$, screw : $\epsilon$, spring catch.











 After than thadinus the hbabler surepal fimion tha dube is
 siberable size we hardneos, this may takw an hour om momb if
 ruli allo quite ammenthave to this mat homl,
 cutture me the oru-lainar un ration homlal lue loft to the - Hergen
at pleasure at the handle of the instrmment. In ohlamat of crushing the stome was by percussion appled at the handle of the instrument haymans of a hammer. A purtion of the finer debris reandiner from the emshiner may le bunertit away in the jotwo uf the instrmment. Lnleso that stome is quite small, the operation requide 10 be mopeatwl at rewalated inturvals till the whole coalcollus is reduretl to frate
 early experiment- Coivale directed his efforts, altor the velzure of the stone to ferturating its sublane in diffoment
 and facilitatimer its heiner con-lom by presume straisht instrmments alome candel be waployed for this furpors and hence grater diblionty wa-concrimteral in thoir intronlwtion inter the blamber. Thase inntruments, momenver, wert
 manipulation in theil nae amd wre therefore mone liathe
 objections lod to the early almalmment of the ferfomation process, and the sul)stitution of the comshing fromes alome.
 ments, which in their form more nearly resemble the eathe
 eration of lithoraty is particularly allapten to bationt of amalt age, in whom the expmlsinh of fragment is fireilitated by the mater caliber of the minary camal. lat arly life, under the ars of fitteen years, and espocially under tom vears, the operation of [urineal or sut-pubic lithotomy is successful in solarge a promurtion of the cares yprratmi om
 now late the ind of anacothetics, by which jatients are spared the pain of the uperation. The descent of a comeretion from the kidncy intor the badmer i- atomndation by an attack, msually vinent, of kilney (renal) ewhic. Its fuesence in the blader itself is charaderized by dinturimate of its functions, such as frequent calls tor urinate. smmbers atrrest of the outilowing stream, pain felt on the chose uf the act, and refermed to the neek of the hather and emil of the penis, pain also from the jultiur of a vehicla. anml the ap bearance of bhond in the urime A pratical infunction should he borne in mind by pationts sulferime from symptoms of stone in the blateder: to wit, that in the baly stara of the disease, while the stome is of mall size its remomal by the opration of lithotrity masy be rusariand as alomot entirely withont danser, ant sumblimes can he ancomalindua lys a sinmle operation. Henew the impnetame of hatime its bresence aseertained by a killfal exploration of the imforion
 from this malaly would "arly aval themadres of lithentits.


A still greater imbousomant on provious muthonls of crushiner rosieal calouli was devism hy Jamol liberdow,
 of the caloulna at one sittinor. Ife foaribility in based on facts which exparionce domomatratmat that the wathara wan capable of a "rotain amonat of lilatation. lumaittims the
 tofore in ase. and that the lablater was mot an randind of prolonged manjpulation as hatl beren -apponeol. Acrombinerly, whereas sittings had ween freviously limited to ter min-

the pationt, It mant himge os mamy thatrewhith molas-





> lieviedily lanwhLh Park.



 men and the bïna in the X. and the ? ban and ithe Tbue in






 the loblish kinedonn whe small [atit of lithataia Wron mo
 rust was inmapmated with the libsobian crowno farminer the

 the Lettice eromps. See Latrod lats.

Lithuanian laturname a languane mitimer with the
 ghas





 Moff an fiar an lahian: from lablazu in at mathramtorly li-

 a fisw leagne of Wilna, and than cirching abmet the rity

 ary of the lithuanian territurs. Within these limit. antil withan alnot 1 wa ermerations act the loiflathian was the maivarsal folk-sperch, hut since that time it hatw han ragilly















 graticular designation.




 at中































 voryerat. "ll












"J'rim-latud by lowsi. lue W'meser.













## 






























 and jullomatit










Little tolorado River, or folorado ('hjunito: a trib-
















 lialud a mew dition of dushmis ('ur deus homo (London, 1, (in? mal the hilmety of st. Mert and offices from the

 from I'romition amd Mediaral Hziters; and wrote, besides, it ernat mamber of polemical, historical, exwretic, and other jublicentolns: :1mbus which were (ratholic Ritual on the

 ('hurch uf homp (I-vo), of which 30.000 cophes were sold. Simiel Macalify Iacksos.

## Lifte Jxuma: Se lixtoma, frbat and Itrocte.








Litlur Falls: vity (1s!is; incorpurated as a villaga 1813) : Herkimer ©口.. $N$. V'. Cor location, se map of New lork, ref. 4-11) ; on the Mababk river, the brie (mand, and the N. Y. ('ent. and Mmban liver and the W'. Shore raibays; Di milas E. of [ttara. It ivailt agamst the sides of an abrupt dedivity which risas abont sum font mbote the riber, and is
 hore falls form 00 fom within half amile forminer pictur-













Ifthe Ilmmboldi Riare: the most impurtant fributary


acres of axceliont bottom-limi, and son000 of bench fumds of the best character. The small brows abound in trout The eleyation is some 4.500 feet.

Little Inagual Se lyata.
 in Moutgonury co., N. Y.. Wee. 13, 1w. ; graluated at



 1s5l-60, and sine then of lloly 'lrinity chureh, lirmklyn,
 in the Divinitysthom at Midhetumn, fomm. In latis hie waseonserated Bishop of Lang Bland, and in 1sit undertook the charge of the Ameriwan Eiscopal (harches om the continent of burge. He memed the honary deree of

 university. He is author of Philosophy of hetigion. a series of lectures, The Christion Ministry. Imlicilualism, amd has writton largely for The Chureh liemint and has published may sermons, chargos. and adremes.

## heved by W. S. Imbry.

Little Kanawha River: a river which rises in $\mathrm{T}^{\top}$ whur
 the Ohio at l'arkersburg. If flows through the ail rawion, and has whe amb fertile botem-lands. The builing of three dame hat made it marigathe as miles to burning springs. Great mumber of hags are thated to market mon its waters.

Lithe Rock: city (settled $1 \times 18$ ): caphital of Arkameas


 Memplit. It is built upen the firat highlamd reathed by aseenling the river, which is here 400 gards widn, and mavigable eight monthe whe thear fin late atemuluate, analler ones plying to Fort smith, on the bimeder of Indian Territory, 300 miles ahore. The rondy eliff on whith the city stanks, and from which it takes its mane is not more than 50 fect atwey the river. white the bige Reke, herimine a

 with more than lifty latre whbrate houses. The eensus returns of 1890 shomithat 9 manamoturimer estahishments



 tablinhments are 3 cottonseed-ail mills. ? entton comprese a eotton-quols mill, a cothon-pmess fictury. 4 fimmbine and




State Capitol, Litlk Fatck, Ark


 grood water and sewerage plats. The mity matains ex




















Einton of " liazette."






 Morris's at summer it hofo.
II. W. 11.

## Littie Tibet: sum Rati.

Litlloton, Abay. I). 1): oriental selnar: ho at Ilates


 prommary of Weatminder in 16it. I) at thelsat, June 30, 1644. 1r. Litteton fummal a limary of ram buks and


 equat work was the Diefionery of the Leitin. Virwh. Mebrew, and Enqlish Lenquates ( 1 this: frequently reprintel). Ho
 1thent armimats, wal. ii., and the prefate to Amswortlis Letin Ihidtumery.

Libliefon. or Latheton, sir Tmons: jurist: b. at
 est an of Thmas Westente, bat wa haptizal in the mame of his mother"s family, she foring sole heir of Thmas de Littletha, lord of the mano of limakley. Ite was a momber of the lumer Temple, amf was in praction as a phater in 1445 , and in 145 , was callen to the degree of s+ryant-it-law, We hed several publice otlices, amone whith wore the chrier alty "f Worcesternipe and the recmoderaip of cowentry. In 1 tis. ha was mado kinges sergeat and atern a jutice of asaize in the nopthern cirenit, and before the dath of It anry

 have hern involvel in the fullition tromblen of the thenes, and
 mand the irpatt seal, and was som in fatwe with the new king. by whom he was mande a justion of the comert in

 and wa haried in the nave of the Worenter cathedral umder


 his treation on tenupes, whin was aher watk writam in


 Eneli-h law. without Iramine from the limman or eivil

 Land Cokn: (emmentures long remained tho prineipal stu-
 wholly umate and it chinf alne is himpical. The tirt edition, in back hoth, withant title or batte. is .majectured





 "川lums.





























































































 Littri in the Misterim lettimare de leranee（vall．xxix．）．
d．IR．MAK－ll．




 L buher hif diraction the observatory of Jioma was moch

 aften repmblinhl：Themetisphe amil praktiache Astronomie




 にいいが，ly triamendation．

Litureics：in the preific sonse，in whith the term is －mphyed in this artiele，the hiotory of the origin and de－


 Thinamont to domote livine strvie＇e amd the priest．The same 11 －r of the worl i－contimued int the New Testament，as
 （ （etroup $i(a)$ of the priont Zablarias，and hy St．Paul it is
 the（＂hatian primothoml in liom．xv．16．where we find the

 lionaman min the worl as reverimer to the mets of Christian wor－hipe and ly the fenth comtury this nse was fally es－
 ine of the worl torlemete all phblie servies of the Christian
 roatritid，suthat ly＂the lithry＂was usually meant what． We mall the mass amitu the present hay the edebration of
 vine liturey．＂By litureriss．then，in this artiele we mean
 and in the atministration of the sacmments．see Ilom

 ti：＊－pint．

Intignity＂f hitmanco－st．Pand is hes some learned writ－








 －fangly the haial of their having bedn writen during the lime hama maturiss amd l＇mbse（Liturgir dar drei ersten



 －rome to bu true that muely earlier than this there was at A－dinte and fixel onder in the eelobration of divine wership




 The sume lhime．I arman thou followed．noml the Misse


 tho lath hful（misose fideliom）with the wabling of the bish－






tom refer to the Sractus as following the profare Now that we have come th, the vam, there is almon antime silence, as wo so often read in the loathers, "The initiated know what I mean." The words with which the dran mesteries are consummated were tow saced to be "ommittol to the ordinary youlars aire. Wro know the worl of institution were used, and that the fathful answome ". Smen at the Wucharist" (1 Cor. xiv. 16i). Just thefore the commanion of the pande the will was hawn aside, sost. (yril Alexamdrimus tells us, ami they reeceal the sacrament mater the form of breal into their hands, and then from the chaliow the deacm gave them the protions blow buring the communion-time was sung "oh, taste, and se how erations the Lurd is," as we lean from St. Cyril. 'The whole survere endel with a blessing by the bisho-"Grate amp pace be with rou." (St. (hrysintum, Hom, ia. ath (oblos.s.) The foregoing womblem to be a fair ont line of the commmon office of the Church huring the early centuris, and it wilt be noticed that it exactly atores with that service as used by the Greek, Latin, amd Anglican Chme hes to-daty. Of the son-calley primitia liturgies none in its preant firm is probably earlier than the sewent century. for ahthough one bears the mame of St. Mark, another of st. James, and en on. no real critical work has been tome upon them, and even of the MSis. we hase the mot mearer information. The Leonine fragment am the firlasian and Grequtan sacramentaries may justly be consibted as eaty as any liturgical remans we prosess, for while the Apsitalical Comstitutions are in part certainly of an partice late, the rishtla book, which contains these liturgical forms, is in a very uncertain combition; we have bo ratom for shluwing its text to be unadulterated, and it is admitted that it is much later than the other broks.

There are roughly peaking, three bodies of Christann which look upon their ministry as a priesthond with saterdotal powers and a subatantial oblation to offer, viz.. I., the Eastern Churches. H.. the Latin Churhere, and IlI., the Angliean Churches, and the liturgial broks of cath of these will be treated somately.
I. The Eastma Lifibrical Books-These bonk of "The IIoly Orthadox Eatern Charch," of which alone we treat, are in Greek amd in slavie, i. e. Ohd linsiam (which diffor* from Motern liassian rather mone than Ohd English does from Maden English. The services of all the Eastern Chmelles are (no one were) in the language of the prople. Following is a list of the liturgical books of the Eastion Chureh

1. The Type (zumerov). A series of rubural dipections. .2. The Menea, i. e. the proprers for festivalsamh saint days. :', The Triuntion an! the Penterostarion, i. e. the canome of odes for Lent and Eastertide. t. The I'meleficom, i. e. the tromes for the terias. $\therefore$. The Octuertus chanams the stichmotand tropes for a ferial werk. 6. The Monalogy is what we call the martyrulagy. 7. The E'ucholugion exntains the forms for the administration of the sacramonts and hew the giving of rarions blessings. Besides these there are the Ihmotegion and the Divine Liturgy, lath of which mut be suken of more at lenerth. 8. The Horolegion.-This comeromets th the Breviary of the Latin( 'hurelame to the "Daily Mormine and Evenine Praver" of the Anstixam (hureh. . In extition of the (ireat lforingy was issmei muler the anthority of the Patriard of contantinople at Venice in 14.t. anit simo then there are other editions. 'lhose wha desire mom information uph this sulject are refomed tur sumpis of
 edited ly Katharine, Lady lachamerewithan int rodnelion ty

 derminster). Sue alsis the momarks of Hr Noalo in his fobodection to the Mistory of the Ifoly Estatorn 'hurrh. 9. The Divine Xitury. - Whis is the odde fin the welsbration of the Holy Emehris. Two forms are in artual use, that of St, John ("hrysontan aml that of st. lasit : tu these must be admed the "Liturgy of the Demamotiforl" i.e. a form of service naed in Jent fexcept on Satheravis and
 but the emmanion is made from the sesersen tatmant. For the sake of aceurace it shambld be added that the liturgy hearine the mame of stames i usal in dermatem on St. James's Bay, D.t. :

Literatcre:- - Iammomd, Lilurgies, Eustorn ambl Wist-
 duction to the Mistory of thr Iholy Eestom C'/ucele: Danicl. Codex Liturgicus; Goar, Eucholayion: Linambans, Litur-
siarum Orintulium Colletio; Noald and Jittlealaln, T\% Primitiew Lituryios.
11. The lativ Limpabal lano--Tho litareical bubl. now in we fat the liomans 'alfonle ('lured will the enomes










 munion for the smodays ame weck has- of the par. The

 for those sacraments which a pricol am indministore and


 still nee their own forms and not the Roman Riturie. (h'Tlue
 It was in its present fum sot forth in 164t, and impuand ly
 the Latin rife. (in) The fromominle Eifissoperem wives directions for the ritual to be wal loy bivere ah varions
 VIII, in 1600. (6) The Jhatymatery is at list of the saint and mystrics momennatud ald cald dis of the year, with
 of ereat antiguity, and ha dates wiven abwe are the in Whinh thr lat refommen intion (a) to swak) was set forth. Whe only have spate to spat of the history of two in hatail.

The Mistory of the Breviary--Tlee central ideat if thas
 An gathers: and this is thair chamaterifice in wery part of the Church, As the surion of mates is derived tor man





 promly of the sixth hom and of the ninth hars as lomen
 sery hag amb no dhat st, tom, at first, were thane of the What : lint this was alterwand changed. It is certain that, whila in larer part of grat anturity, the limeriary thetay





 Comdinal thimen in the -ixtmonth entury. whely wa al-



 (meranser. Institutions liturymues; fratmentas. (omemn-


















 servire. Thation"

















 thathing the wrive－ln．．．．．
1ambaftre－－Muratori．Liturgin homem litux：swain－




 ased in the barmu dineres：wee enn lint refle to these in parnlo．



 of the charth of Bingland：
SARCM．Mastl．Bumbinal，1～61）．


 （with font－ntio on Bangor，Excter，and Win－ －中hoter aーが。





 ar－Markell，wh wer
 k．all



Prantsvimull ：Surtors Sur．．vol．1xiii．


 wall is． 11 aini．



Lither Viger（ambrider． 1 vis）．
 （1パ）．





 1henestierm．







 shan－


 （1）： $1 /$ i．
 fol．i．
 At Monal of ltreytes，or the lrymer in





 natur．being at the same time bresary，misal，ritual，and Putitioal：it i－called The bowle uf cominen lonyer and Ad－ ministrution of the Samraments atal Other Rites nud Cere－


 it is seeiteil unce nath monht．There is alse the litany to the atit at artan times．The prante for the seasons mad hely have fullow，am the＂order for the Aministration of thachils Suppror lloly Communion，＂ompreponding to the nrlinary and canon of the mass．The forms for the abmin－ istratinh of haptism，wentimation．and the＂（commanion of the sick．＂for the＂．Shmonization of Holy Mat rimony，＂and for the＂Vibitation of the Siek．＂and the harial office come next．and at the end of the lonk are the ferms for the orti－ nation of the likhofs．pricels，and deacons．Besides these， thate are some precial serveres of hess mote，and varying in differnent parts of the worhi．
Hestory of the Proy，r－bush：－The Cluarch of England han always hoco providod with payer－buks in the remacu－
 any publi，survice in the buglioln tongue until 1544 ，when the Litany was firat tranaland intu）Enerlish aut publicly
 inn．＂lame the praparation it the commanicants，which in mas immenatily precelos the uministration of the sacra－ mout．Ihtic mow was to bo satil far the first time（so far as known in Englixla：and it was provided further that the Chation thand ter restored to the purnde．of which they had turn farrived for some centurios；for the rest the mass con－ timed tal he celdurated as lefore．
The Preylish Proger－bunh．－hin 1．04！there was set forth the firn Ehorlish Prayer－iont，in the preface of which it was dechared that atthongh twore that time＂there hath been grat diverity in saving and singing in churches within this

 mow from houeforth，all the whale realm shall have but ohn wa．＂This book，which is all in Fondinh，is taken chief－ Iy from the sirvie bumbe of the difterent dineeses and from thone of fome．whith were hard ly used be religious people athe inhers．if its histury we unfortmately know very lit－ tho，and probs nothing note ham that Archbiohop Cran－ mor was chiofly respmsible for it and that while he him－ siff was at that time hargherner the inhuence of the con－ tinutal hafurnurs atif chiefly of these of the Latheran shlowh，yet hatt he was obliged to make the book sueh as





 with their doutrinal anm rithal tellats．Acordingly，the

 rallial．wa－w．on then in eontemphation．The king，however，
 and an（baren Mary come tu the throne and reared the pre－ Lisformation chlice lunk immodiately，it is probable that on－ide if the miversity thwnem the rity of London the
 Weth when whe thearh with home it was alecided to take




 of the chery and the tittinge of the churely to he at thes

 us：This is sumataially the liturge of the Anslican


 sany coufurene in bibi，hat these alterations were very
minnte. Speaking afomately, the Bonk of C'mmon Prayer can not be said to be a diandet limeg from hat of lame. but rather an aldaphation, in wheh math of the Wiwtarn sorvice hats bean kept whehatured, but in which. wh the of hat

 Gilurie in excelsis is fomed in the form for the coldenat ime of the divine mysteris, in the Latin uremer it at the beginning, in the limplish at the ant of the arrvice. Whe thinge


 changed form, and such ith antiguity in wor hy of tho hionrat liturgical rewided. wen hat the forms leen at that time newly frammen inteat of being at they are, moditiations of forms already lone in use.


 of the Book of C'ammon Proyer: Bhant, Amotuted Book of Common. Prayer: Lathisurs, II istory of the Bowh of contmon Prayer.
The Irish Pruger-buok.-This is the Buok of Commen Prayer of "The chureh of helam!" i. . of what hand bown the Established Church. The Irish Praver-mank before the disestablishment differel from the English only in containing a few extra services and prays.rs, bat after disentahlishment had set it free from burliamentary control. the atrong Protestant spirit asserted itsilf in the numerus rationd alterations adopted be the Synorl in 15:0, deppite the stronous opposition of the famons Arehtishop Truch, of Dublin, and of a feew others.
The Scotfish Preypr-bouk.-This is the Bowk of Common
 monly called the Scottish Ejpiseonal Chureh After enisenpacy was abolishen in suthand hy the anthority of the ? ated prinues and the l'rowhterian wolimion hatl been owtablished. despite the penal laws aquinst them, the sontch bionnomat clergy (supported by many in Englime who hand likewise refused to take the outh of allagialace to the newly , hasen monarchsy contimed in private to eedebrate the sadmants and to keep up the suctosion. These dergumen, called Nonjurors, made some changes in the Prayer-homk ilf tho Church of Englam, the must important being in the pays of consecration of the conmmmion arrite Further bhaness are under consulderation. All the heretofore have been in the direction of a return to pro-ladomation usp.

Literatcre.- Bihhop Dowlen, The Amotreted Somtishe Commenion Office: Lathtmry, Mistory of the Nomjerors.
The American Preyer-homi.-This is the Book of t'mmmen Prayer "according to the use of the Frotetant Mpinnmal Chureh in the Lenited slate of Ammira." Until the liown-
 been part of the finisiction of the Bishop of Lambne. After the indepentence of the country was sicherd, it seemed necessary for the prosurity of the 'lamoh of Ene land here that it should be frow from any foreign ecelcosiastieal jurisdiction. After some drlay and ilithenltien this wats accomplished by the hierarchy of the "hureh in bampland giving both Enfecopal orhars ime also jarisdiction in this country to thre Dmarian priouts. Betore howerar, this was done, an attempt was mate in las. to reviec the Praver-
 Bishop White siac) was ecen to be a failume bofore it is-mpel from the pres. It was a wry radicold arfort an simplify sim
 obtained, and with it the right to reviee fle lerayo-lonk. the work was enterenl into ly the (andral tancontion of
 know it to-day, which with hot tritting changes and :t fow autitions has been for wer al whtury the pmbine athion lum of the Episoopal Chureh in the L. 今. Tha ehief puints in which it varies from the Euclith lawk ane the retomation of the rest of the 'anom of lomerration thamgh the inth-
 Creed, and of the indiation form of abshation from tha Otfice of the Vivitation of the Siak. and the allatitum if I Form for the Visitation of l'risume (whiel wat talion form the Irivh Prafer-boks) of a sorvier of ". Thankensing for

 pressions and directions wer amithel from the bingli-h
 prohihiting private masers. The Form- for Urlination wror



 "the chamed cemditione of the mational life. Shand hatamel

















 $189 \%)$.

11, 1: Peremal.
Gmamay and botheras Dmphoment of Liturams.
The leformers henime that tha Mat- is an expiatory meri-
 amother, of he the livine for tho wod. Ail lodievers are privet. Chriet hath all hrink of the copt. The Wurd of
 "xplainel in the remarolare :and in the [hw suppre the
 the haring of the pemple. (hri-1 in the enty Modiator.


 They ato of yatue in traning the vang and illiterate in the Wiord of Gem.

Lather and Melanclathontaught that the Word is of prime
 which forquenewofsins is liatributed am! givan." (Luther, xxix., 1:4.) Conter the ithat in tha Wimp, or the Goipel, thay inchaded not unly the lectumes and the sormoms. pat


 Gutwardly thrangla the sunkin wand if the lampel. and



 Hatan of the ontor ; for the will give to no one the Sipit or faith withent the external wion ur sign whichathe he




 arate. The llaly (immunion was in hi- sinw a a common
 atomine hathof thrit, and and ant of fath and enoferober







 Ther fortade cobrectation wher the wew but commumanits. To, the prowlamation of the What of lan! thes fonmen
































 X



 wer－hip of lierman lewtimund status in＂latheranizine．＂










 Thirty Jomes mat heatroyed all annl mater．Diation um－ rervithand externats．lationalion hat now hart in wornhip．
 litaratal intaros．If anthor，Fromeriok Willian Ill．．awati－

 tor fathor Lathor．．．．I have the old litures with the ald

























 14！












 Gommes of the C＇ummon Sereice（1801）；Schurthe，be forr the 1／tur（1）ind）．

E．T．Ilows．
Limdurand，ur lintpranal：whe uf the principat ehron－








 hy him hate（onto down for and have great valat as hise tirital smores：Anfopodesis．in six books，a narratise of the ebonts from ext in ！note evidantly writen in onter to
 diblus Lisstis chtonis Maymi impratoris（960－64）；and
 all limand in［＇r $\mathrm{t} \%$ ，Momammata firmmaniar Mishorion．See



 the thtomans．Nat ley are the eque of Jroplomins，an－



Livar［u．Vons．lifer：Jed，lif：：1），11．（ierm．lebera＞
 matmel in the vocmal ravity of all bermbites．In man it
 dialey lubow the diaphagm．but extomb beyond the min－ 1he liar to the laft silte．It reachos，sumerioly，the sixth rib，while its anterior border inferiorly appromenes the lower maremb of the haorax．The furm is thattened，brond and thiot townal the right extremity，and thimmer and narrower towaril the left．＇Jherererior surface is consex，while the
 berder tha linar is thick amd rommen，with a thin and sharp andryom bobler．In the aboment the position is obligue： in the mext grature the convex sumere is directed moward and forward，with the concuve downward and backwaml．
 rateo the liver from the under surfaed of the right lung and from the beat．The inferior eobeave surface is in relation with tha stomath anteriorly，a fortion of the daodemmm， Hanvorrow colon，mal right kidney，and hy its left extremity
 vene betwend the vertebral colman and josteriar borter of the liver，while the anterion burder is free，and in reba－ than with the antreion ablominal wall．The liver possesses
 rallant the homat，the eoromary，the two hateral，and the rumbl ligament．IS live lisures，mamol longitudinal，
 Fall－hlablda，and tissure for the vena eava，the livar is divided into five lohns：those lohes are desimmated right amd left Johe．Jobus quadratus，Jobas Sugelif，and lohns camdatus． The liver in erisered by the peritomema extermally ；the folds of this membram as it pases from the surface of the organ form four of the ligmonts abowe emmerated．The round limament jo tha reant of the obliteration of the umbilical




 nal timar＂，is a mombranome sar，the rall－jbather．The














The Functions of the Limer.-The liver as a mand stames alone in the eomomy, on aceoment of the amplaxity of function which it possuses. The physionogy of erlands in general points to but wa fandion tore wath; in the cose of the liver, lowever, may be ammorated (b) the: sorrotion of
 Under the head of bild is inelumed both a areretion of innpertaner to digestion-in fact, necessary for lifu-is well as important pxeretion.

How is the bile simperel? Ther oht theory that the smanll ghands in the linimer membrame of the wall dinet serofere the bile is incorrect, as thes same ghames are met with in all macous mombrames, and simply prodmer muens. 'T"lure is no
 anywhere but in the loboles or incini hymonas of the hepatice


 future lome. A question of internat arisese as 10 whether the bile is formed from wonns or arterial hlond. 'Tha hapatic artery has heen tied and bile was secreten still. From! the experiments of thre it is shown that when the jortal vein is ohliterated bile continues to be formed from tha blood of the hepatic artary. Hence wo comelude that bile may he formed from either vemuls or arterial bhod, lat the portal blood is doubthess the more important, the hepatiecirculation being clesigned mone eapecially for the nutrition of the liver.

Quantity of Bite.-From Pxperiments on animals, with a
 docus tjed, it has bern ontmated that the prantity of bile secreted in twenty-fon! fonnes in a halthy man varies from 20 to 50 oz .

Flou of the Bile - During the prome in which the dimestive functions are ination the erall-hadder is monstantly receiving bile from the liver. As som, howreve ats st omatch digestion is completed, ann the forel pasess into the dhodenum by masus of the distenced combliton of the antrounding orams, a suticient amonnt of pressure is exertad uron the walls of the gall-blableler to toree ont the bile, through the dnctus communis choledocus, into the small intestine. The flow of hite continues during the perion of intestinal dignotim, after whieh mo more passes into the duodenum: the fabl-hbulder still rawives this flaid from the liver, amd in this manmer it is stored ny, for future use. The bile, then, is constantly formed by and discharged from the liver. This pecaliarity belomes to the liver, for it is a well-establinhed fact that serrefing mands are mbly ate tive at verimin times, their fonctions not being eomstantly required. The fuantity secreted, however, increases during the ligestive procesas.

Properties of the Bile.—sen Bume We have alrealy reforred to the functions of the liver. and have seen that it seeretes bile amd forms sumar. Let us first connider the functions of the bibe. In the first place. it is a surction formed from the biool hy the liver, and discharged into the almentary eamat fur purpuses oll digestion. Here, after modifying the digestive process, a part is absormed into the system. and at part (cholesterin) janses but of tho economy. That the bile is neeessary to life is seen in the fert that when this thad is allowed to ewape through a fistula an anima! will die of inanition in from twenty-seben th thirtyeiflit days. Physiolonists are not yet rattan of the exact action of the bile as a digestise fluid; some cmasiderims that it is for the frapese of cansing the movemonts of the intestine (feristaltie artion), others that it suphles allablinity to the absorbing vessels of the villi, which hastuns the introduction of tat into the binorl: while. on the wher hand. it has been elaimed that the hile forms an emmlsinn with fats to a preat extent, and in this mamer aide the secretion from the panereas. no as to completely digest fatty matorials. We can only state that the bile fingforman soma bart in
 represents part of tho 1 ruth. The hiliary *ilts. with cortain other connstitunts of the bile. aro absorthed in tha intestine. as they man wot be fomal in the foreres and wro mot bern to seemmalate in the bleon when the liver is dine:and or extirpated.

The Bile us an Érertion.- Wlamarh it is wrll known that ehobesterin is foumb in inall quantity in flue erystalline lens and solern, ly far the lary amome is mot with in the brain and nervilus statem. Fixperiments have shown



 Worn-ont herve-timate, aci lue: don: that of maseln.

The (ilycogenic or Siugh-forming lanection of the Limer.





 fomad in it: lat when the ban! smanior from the liver is





















 fion Jumpirer, a Enitarian leanor in Now Vork; breanme
 ancl continned in this other until Ixsy. 1). it Wiltons. N. Il. Nov. 2s. 1 str. Mr. Livermore wate a comtributor to magat zines, and the anthro of severitl walk: A 'omanmatayon the


 was also one of the compilars of the boak of hymand hatown as the (heskire f'ullection (184).

 Ganifl l' Livermore, a laversalin minioter : has written
 of the sanitary Comminsim during the rivil war. amt has taken a prominent position as a water and pulntic spakne
 tions. In 16ro she was editar of The Wroman's Jommal at Busion, Mass. the is the amthom of Pen Piofutes (Phicage, 186.5): Thirfy Fatrs tow Late. it lumpurame sory (bustom,







 A juasible hit doubtal derivation is that from the Welah





 mons, whe for eath of jts Hint divisinus.


 others of them are commmations anm! well hailt. (hamed)



 resoblace in their viejnity matry of the wallhy inhabitants.

























































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 in hiverpent．＇flat Chureh of si．I＇eter in＇hurd sireet




 ther are 4 sumgenes．Wf the aryal remeteries the most

 ing part of the Viethria Coniserity，Manchester，is on Mt．
 －ruequin in all the bancher of a liberal alueation with the tarthing of s．jence，thenetical amb partical，and with tech－ nian and industrial traning．An impertant malical sthool

 tonal institutions are liverpal College for Girls，the Gor－




 Which there are fis．＇There are sumbe gentustrial and re－




 ＂，mublaw，dertal he the humone in sixtern wards．and



























 foren and















 tons conllectively．

General Indiestry．－There is some shijushilding in Lism－ pool．The varions grooestos connected with ship－buildines
 tablisluments fon the construction of matine thumes and of
 Althongh othor inilustrites are carrien who such as sumar－re－ fiming，tobaceo－mamufaturing，and wat bath chromumeter making：those comnected with commoree，the doneks and navigation are the most impurtant．Liremonal has form－ teen banks：
Population．－The population in $1,40 \mathrm{~m}$ was $75.633 . \ln 18.3$ it was 30.5450 ；in 1891 ，throumh increase of area，the two ough had a population of 513.351 ．The popmation of Greater Livepool．as it may be callet．Which was 680.304 in low
 population of the urban sanitary district，whicll is smatlial
 was 2.54 ，being 50 hirher than that of lomonn．

Mistory．－The earliest motices of Livnrumblate from the English conquest of Irelam！．King dohn foumbed it as a town，and male use of it for sending rempforcements tu I re－ land．Its history for centuries wat unimportant．It was not until 1z0！theat its prpalatiom．haviner grown to a few thonsand，the acommmodation afforded by its little harlon was inereased through the erecelion of a wet dock．Later in the century it embarked in the slave－trable．of whind it be－ came the lieadfuatters，and it froxpered ervatly loy nofarious trathe．expertine Nerroes to the West Indiasin exedmane for their sugar ard wher groduets．When the slane－trate was suppressal a more legritimate ehamel ton that energiow the merchants was onened by the develomment of the Lanca－hire
 Liverposl importing from the［．S．the enton neederi for that industry．The canal system，originatod by the lorke of Bridgewater，arave Liverpmol water vommunication with the chifimarts of Northwestem Enerland．The Liverooul
 perity，and the nrowtlo of ralwass since then has placed it in eommunication with all parts of the C＇nited Kingrom．

See the anthorities mentionel under LaNossume：also Sir J．Allanson J＇ictons Itemorials of Lieprpoul（isis）：
 Felly＇s Directory of Liverpmol and Birlachbad（1x－4）： County Conncil und Municipul Directory for 1swat parlia－ mentary pituers，etc．

1゚．ERMNASE．
Liferpool ：setport of Nova scotia：eapital uf Queen＂ Connty；has consiblerable trade in tish and lumber（seo map of Quebece ete，ref．：-B ．The town is well hmilt and at－ tractive．It has a goon harlme into which flows the river Merses．It has one weokly mownamia bank．and a litht－ house on Coflin＇s ivland；lat． 44 J．．lom． 64 36 NV．Mep． （18．91）2．465．

Livergmol ：village：Onomulara co．N．S．（for lowatim of county，see maty，of New York，ref．4－F）：on the（humplaga Lake．the Oswero（＇amal，and thw lame．Watur．aml Hwilens．

 and sular salt－worki．＇Ther＇：me five chomelas and at weokly
 with suburls， 8,000 ．



 tary of state in lific．Having sumber the fitwor of the king，he rowe rapilly in the olliciald serviow．H1，wa－secru－ tary of state for the W Wr Inomment in lomel Nurth＇s and－
 much to do with retermining the contra＊of military ofrora－ tions in the $\mathbb{L}$ ．s．durimer the elosing your of the wir wif






















 order，amd his puher was compledely reverand lis his sab

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\text { I). 1连. } 4,1 \text { sex. }
$$

I＇，M．Colisy．
Liverwortw ：posular mame of mortain ervers flanto rim lited to ther Masta．They form one of the chatores of Mo．．． WORT－$(\%, r)$ ．

## Livery oll suizin：See Feofrment．

Liy＇ia Drusil＇la：the wife of the Emperor Iugustus
 by his own hand after the defoat at lhiliph．Livia was marrital at an early ate to Tiberin（ 1 andins Xero．hy whon she hat two sum＝Titurius（afterwardemoror）and｜pusus． While still fresuant with the lather the wam marrietl to the－ tavian（Anern－tus），who han？heen etativaten by her＂hanats




 ber to commait many eriman in wrev to remme the mombers
 natirally have dallen．＂Jhas the death of tha＊Fomer Man－


 Was charerel to hor mathinatimas．nom wan－hatree from









 them which jucreared somuch with geare that．＇Piburine re－






































 1. andare in lifo a member of the Continntal congres


 the Siw Sort thamber of Commere ami of the kindety







 groxe 1:0.⿹弔㇒



 Was intrumental, what ${ }^{2}$. S. minister to Frames (14nt-04).
 Fohtom in promerne -tam-natigation: was one of the in-

 Fing 2th. 1als.






 unt in his death. During the war, when the britiah wapment the state, he faltilted fis dution wht condere and abitity. 14. wa a mentur if the ennsution whith in lise drew bit



 town, S. J., Juty er, 18.0.




























bue nif, the \%ambeci and shime rivera the greatest results





 Wa harat trom him durine the awn remaining yars of his hefe lat the were bate of great diso oseries and, in part,
 to and tilinges to his frimbs. and the met tireful rumors of


 indural to return hame. Sut watheil an till he dieel, having ma rembres part of the time exept what the matives pave him. In the ex ade years he diseovered and partly mapred
 tho Chambezi river near Lake Namib. Followine these


 mesase, he hedievili to his death that the large part of the
 Nih. His map of Lake Bumwono derived choty from matives and tond ued in all mapo of $A$ friea, was very erronots. Had he lived a few werk after hie return to bang-

 His heart was buried where he died, and his embatmed body Wat carried by his sursants to the coat, whence it was taken 10 England and burien with imposing ceremony in Westminater Ahbug. lhe was, an a ruke remarkably aceurate in his gengrap hifal delineations, considering his imperfeet in-
 banks embung value. lo never injured a native. To hime is whally hae the tirat great impetus to Afriean exploration and the firat outbust of indignation against the Arab slaye1ralle. Stee Livingsfone's Lust Jomrnals (1874): Bhaikie's Liringstome's Prestonal Life (1880) : and stanley's Iome I Found Lidingstome (18:3).
liwised by C. C. Amoms.
Li'vins Andronicus: anthor: lived in the third century bufare our erat was bom at liarminm, a slave of Greck deawnt. Ile received his liherty from II. Livius salimator. and bugan to repusent trazedies and comedies (which he
 aho tramsated the olysesy imo batin, and did much to make the lomans a mainted with Gerek literature. In the time of thrane his compuritions werestill used in the schools. but only a fer insinitant fragmons have come down to our tima, edted by Dïntar (Berlin. 1830): O. (Guenther,



lievisal ley M. Whbra.
Livoria (ferm. Lieflend): gowermment of lussia: lurWerime on the diulf of hismiat, and comprisinge, together
 - mfare is how. flat, and often marshe donted with numerous

 intaratiol with mancruss balleys. 'The soil is mot very


 ramal, and many iatla reared. In the thwne the inhabit-




 When 11 Ba- redelta liania.
 the lomar fremb timblat mat of weight; was to the



 it une.

Liv'y (in Lat. 'litus Livins): historian; b. at Patarium, in


 ase to his matise city, atm diad there in 15 A. D. He was
married, hat at last one som and one handater, and pnjored great colehrity among his contompuram, but mothine further is kown of his permal life. Aroordine to senme he wrote severial dialornes and trabson philosiphys, which have been lont, bat the work be which he wom a hating fame was his history of lionse from the fomblation of the city to 1 la
 and the shom introfact ions with whith the first, twen y-first, and harty-first opron seem to indicate that it was divided

 five have come down to mis-manaly, the entire first wade, i.-x., embracing the priod from the fommation of lime to

 fourtl dectule, and one-half of the lifth, axxi,-xly., cmbacing the jeriod from 201 s.r. to 16\% b. ©. Of the rest inly it few and ineonsiderable fragments are still extant; all the so-called epitomes, howewer, shont extraces of or intexes to each brook, have been preserved except thoze to buks 1:6 and 132. The first printed edition (home, 1469 ) contained only twent y-nine bowk-nammy, i.-x., xxi,-xxaii, xxxir.xl. The remaining six bows were diseored in frugments in 1518. 1531, and 1610, and for more than two conturies the whole learned world was put into general eommotion every now and then hy a rume that the entire work had heen discovered, until in the seventerenth century all libraries hat been ransacked in vain. and all hope of the recosery of the lost freasure was given up. 'The best mokern editions are
 Madrig and kssing (Copenhagen, 1N61, seq.: revisen 1sch, seq.) ; Weissentorn (hirlin, 1861, seq.) : A. Zingerle (Prague, 1ss3, seq.) : and A. lachs (Berlin, isse, seq.). There are English translations by Philemon llolland (1600); Baker (179\%) ; Johm layes (1z44): and in Bohn's Classical Liluary (1850). Consibred as a work of science. modern sololars have not given the highest praise to Livy's history; the studies on whicla the representition rests are pencrally not exhanstive, and often not acemate. The chromolngy is somet imes confused, and the enographical and military deseriptions are often inconsistont or misteding: nor is livy strong in tracing the growth of the constitution and the evolution of the state. However, on accomnt of the searcity and in many casis the total lack of other historical docmments, the work has an inestimable value, while in the matter of sityle it chatlenges our highest admiration. The narative is inent and potaresque, and futh of varicty, often dramatic and brilliant. No writur has shown a greater mastery of the perionl. The dietion is tingen with a pootice coloring showing elearly the inthene of Vergil. The anthor is dominatem by a strong feeling of the greatness of the Roman people and his ardont patriotism and wam sympathies captate the realer. The result af the invertigation of hive's soures in the different decans cam not bu considered here. Sow Schanz, Rimmische Lit. Gesphochte


 Etudes sur la langue et la grammaire de Tifte-Lime (laric. 1884).

Revised hy M. Warken.
Lixivia'tion and Lixiv'ium [from Lat. lixi chum. Iye, liter., neut. of lixi mims, made into lye dpave of lir, mhes, !ye]: Lixiviation is the methon of extracting ingeramens soluble in water from parma shostance, like inhmon wart h, by placing the latter in som receptache, throngh wheh the water may be mide to perchlate. 'Tho bessel fon lixiviation nsually has a perforated lostom, umen which straw in coarse gravel is first spreat, and then the material to be bixiviated is filled in. Aht the potash matde in the U . s. is thus obtained from wook-ashes, and muth of the salt peter of commeree similarly from nitrons earth. theh wemomy is often arrived at by a construetion which anathe tha firat water poured on the mass tor remain in it for some time until it has fimished its solsent action, and then drawing off at the botom. Sumetimes then, of I"ming Harough fros water, it will be foum som to rumbarly fure. Courentrated lyes are thas altaned withot builing down. The second water is not allowed to mix with the first, but kept to pour through a iresh mass of materfial.

Lizard [M. Fng. lesurde from 0. Fr. lesarde $>$ Fr. lizarl < Lat. larer ta, lizard > Spin. laguto, whence Ehs, wllignfor) $)$ : a general name for any member of the order Latertilia, often extended to inchate not only the eroculiles and


 or gramular skin, toothed jaws whoe rami ine firmbly mital


The angutne or snake lizard of Sulh Africa.
in front, and, as a rule. eyelds and fom limb, althomgh in
 scheltopusic. the lims may burmentary ur alment. Tho serpent-like lizards may radily bedistinguished from snakes. by their fixed teeth and the united halwo of the lower jaw. The tail may be bery shom, soaredy longer than the heal. as in the Aistralian Trochydosames, or several foet long, as in the great Hydrosamis. The ignman hase a dewlip, and a fringe of hirh sealon down the back, and the carimas
 the mock. Owing to a penliar arraugement of the muscles the tails of many lizimh readily broik off. When this happus the bot purtion of the tail is reprotheed, but although externally perfet the mixing worthar are fome to te replasel hy a contianos strip of grambar cartilage.

 inches in length. Namly all lizards ate uriparaus, depusiting their eges, which are envered with a wheth or then catcarenos menhrane. in the samd, to he hat ched by tha heat of
 baing petaned in thr widuet until hat hed. and the yomer broght forth alive. Lizardare mot momeme in tripiod


 state. As a rule, they prafer samely proky luatitios and
 ete. sumb undies aro arlemeal and herhiveros. ant the























I'. Cisomat.

## 1.Jatia: No L.AMA.




































(i. K. (intatili.

 of ©















 thaty






















 iner the ither monthe, the wimls raising donds of dust; catle batural on many part- of thom mast be driven to the river-buttome at hat seasom. The lakes of the llamos
 frequanty collocts wor latere surfares. batsmard, some
 at all thas hat bavelas wel thath are oldiged to carry
 over many parts of the lanos. on are gathered into sumall


 of limall. I malitume of strams. rising on the flanks of the mombaime or of ibe meras, flw orer the llanos, and

 with the Grimuco. 'lhe climatu in most parts is hot and damp. hat wiombally hablafol in the dry sason: dariner the




 tribes whiol formory onchined the llanes, only a few are
 the flamsame lhaly indabined. pumapally by a hardy race







 hamdine, ambla mopatte those intemind for the market.













 (111011 (\%) $\%$ ).
11. 11. .







 uf リリ:

Hamgnihue is the larext body uf frunt water in ("hili (area
















 at the heal of the cinlt uf Aneud : it is nuw commecterl by rail with Valdivin. Ozume, in the nomthern part. had abitio mbabitants in 1sxig. IIERBERT II. Simitif.
Wewelyn (lon-el in) ap Griflilh: I'rince of Wials: : oneceeded his unclo David in 1246 ; revolted from his allegiance to the Figlish crown, and ravased the frometer. We was joined be le Montfort in 196: and in featel Mortimer in 1264: made peare with Hemy III. 12ht: was smmanned to do homage ley Edward l. lint refinad to ablyar, and demanded the release of his bribe. Eleanor de Montfurt, whe had hem captured by English resels in the chamel 1925 ; war beran. and Lewelyn wat fored to surrendor his territories 120, hut Elemm was wased and maricel to him. The became remedial to his brother David. and renewn the war with the Englifl 190 , but was surprised and hilled by Nortimer Inc: 11, 12s? levined by F. Ml. Colby.

 theology at Tarragona and Madrid; was urdinemp priat (1ara) : became doctur in camon law, adreste in the royal
 chancellor of the Cuisersity of Toldas. member of the prin-

 to corred the insetrate abmes of the hoquisition, the lather of whish occationd his reduation to a monatery fro a short time, and the exile of his frem and protertor, fhe minister
 by the favorite (induy to write a work in ommeition to the traditional privileges chamed ly the Baspue prowimot Noticises hestoricus semp les tre:s prometies Besermymhes

 verted the facts of history. Ldorente wherd to the Fremes intorvention: was made at comeron of state he king Joscph, and director-general of mational entates (isim), in which capacity he was charsed with the supprainm of the comvents and the administration of the confixeated property. On the extinction of the Inquivition its papere were phad in his hams. with a comminion to prepare its hatery. 11" fulfilled this task in his almules do lo loquisicion di. Ésum ( 2 vols., 1812-13). ('harqual with embezhament uf immens

 rexided for a time in Enolamland atterward in Paris, where in 181~-18 was palli=hal a French wesion by S. Pellin of his celehrated Distoride critich de lu Tuquisivion do Espulto. elc.. 4 vols.. of which the oricinal was printed in Matrid in 10
 abhreviated English version, 1asib). It the same time he was at work on his bemotres ponn sprmir it thistome de la






 a Frenth rersion of his hetrato prition de les Papas deste S. Pedro havele Pid I'M, the Spanish wia printed the nest year in Madril). The liat of thup whin arnared ereat indignation among the Fredech cherey, and obliwell him to have Paris and return to Mablrid. whare he win tred rewivel.
 ent, and his works were once very fopular with the anti-


















 mential pimen.
1). E. 11 zatry.


















 they Fiont hereimed the (horistane helogion (lliwt): a $H$ hes


 Bishop Barmets IVistory ut His Wurn Timm
Keviond hy


 arlitst shipping intalligene from all part- of the worll is



























 (1-25).









The brach.










 mal and bentable mattor. I lowny wit is intermentiate in


 arndy ome.

Loan [1. Vong. lion. derir. nf lion. laml: Germ. lailen,

 either ("A) a helivery of a chathel, as, for examphe momey or stomk. be we perven to amother for tho we of the latter. for which an equivalont, umally in kiml. is 10 be returned at a fature day: of (b) the verefes of lablment terdmically callod commomentum, wheln consists in the delivery bif an artiche to another for his or athatents temprarar use on comblition that the didentical attiold delivered shati be remmed to the benter.
I. If the lan he of the first kime the lomber may hring an abtion in a conat of law for the rembery of damases eftal lo its value, or of the stm armed to bie given in ru lient, if defant lin mate in rembering tha equivalent at the


















 Hos!





 other whlant alay "











 tha hation. 'The gratuitons lobit creates a trust relation of





 lonamed is Lo be requmal tor the uwater at the $1 \times x$ piration of
 the expration af ateanable thar: atal if the bator then rofanco to deliver it on at proter hemand being mate he is




 Ablinon, itory and laraons On Contracts, and Story and schouler on buibments.

F* Stirges Aliens.
 two furns of the lam, vio., the loan fur be (commoduftum) and the lan for consumption (mutumm). (1) 'ommodetwom dum not transior uwnernip: it is malerstome that the very thing leme is for beetored to the hemeler. This form of loma is therefore limited to sumb things as can be used withont being usta up. Real pronerty can lee thus hamed, as Well as movables. (2), Mutam transfers ownershij; it is unlarstool that not the specific things lent, but an equivahont puantily.shall be restored. This form of loan is llerefurn limitad to things that take their volue (fuctionem recipuint) from fuantity; that helong to a chass (genus) in which all the single ohjects are of equal value, so that the Inder has no interest except in receiving the same "tueasure. weight, or mumber" that he has lent. Among such thiners the lomans classel money, wheat, wine, oil, ete, Nediarial jurists deseribed these things as: "fungibles"; morern jurists eall lhem "representative" or "generic" things.
Fonh of thase bans are in principle friendly, and therefore wratuitus. Jutumm does not carry with it any responsibility for interest, even in case of defandt. If interest is tu be paid, it must be expressly stipmated. ('ommodatum bens not even tobrate paynent for the use of the thing lombed. If suld phyment is promised. the contract is no lonsar lomn. hat hiring (lorntio-comelucfio).

Neuty related to commonlatum is precarinm. It diners from commodatwm prindipally in that the thing lomed precorio can be domanded by the lemder at any time, even befure the purpuse is accomplished tor which it was borrowed.

('lowely relatad to mutanm is the so-called "irregalar deprosi." "The refular deposit is a transier for safo-keping. It is mot a transfer of ownerwhip; the sperific things defonited are to be roturned. It is in no sornse a loan, fur the things doposited may wither he used nor eonsmmed. If now mumb (or onher generic things) he depusited, and if the

 tract is thparouly matumm: but the lioman jurists decoded
 Tha" pincijal roisha for this deriaion was that in the action
 in whatever sum was due ox fide bona, inelnding interest infumbally promised amb intrest on dufimlt (ercmora). If, on the other hamal, wo interat was to he path. the eham for muney depmital was a privileged riam, i. e. the depositor waratithed to lar satinforl lefore other areditors in case of tho insulverey of the aldutor. "This rule was esperially impurtant whery, a was oflen the case, money was deposited witlo a hanker (wrmenturims).

In all rases of han a ralal rontract (obligution re contracta) comes inte exi-tome with the helivery of the proproty lemt.
 ity of the borrowner is alsolute ; in the rase of rommodetum,

 rimm, lo is relpunible anly for willul wrong. In certain


lanas tos fursem undur jatarnal anthority (filius fami(ins) wre ant recoverable, crin when the himrower was of


 tinns have retained. Por the most gart. the diatinctions and rulas of tho lanana law. 'Ithe luan for use (rommorlat, pret it usuge, (icbruuchsleihe) is distinguished from the boan for
consumption (prét de consommation. Derlrtem). Dreararimm. howerer, is ordinaty trated an at surainl form of han for use, differing from the ortinary loan for une only in bing revorable at the lenders phatire. Jutnom aind the irregular deposit have practically been fuxal intor a single legal institution. As regarels siterest informally promised and interest in defant, the rules gomerning the lon for consumption are thase of the irmendar llansit : hat the priority attached to the hatter clian is mot regnizan in monern jaws of bamkruptey. In many coles. therefore the irreatiar deposit is either inuomet in expressy stedarme to be an ordinary loan for ennsmption. Some writers, how-
 bank deposit) is a different thing from the ordinary tom of money. They assert that the deposit is charaterizen hy a different intention: that the element of sate-keping entors into it; and that there is therefore an advantage to the depositor that does not exist in the ordinary luan.
Lateratvre.- Durif, Le l'ét à Intérét (laris, 18:ã); Muschke, Lehre zom lirelehen (Stuttgart. 1502): Hölne. Theorie des Leihurtrags (Berlin, 1ssi): Niemever, Itpmsitum Jregulare (Malle, 1889); von Schey, Dis Darlohen (Viemma, 1890).

Munhoe smith.
Loan and Building Associations: See Bumbing and Loan Associations.
Loanda, or Lhanda: See St. PaUl de loanma.
Laan'go Coast : the sonthwest jart of the French Congo coust-line extending from 5 S. lat. abuat 100 miles N. W. It was the sea-front of the former province of Loango of the native empire of Congo lying chiefly S . of the Congo river. It was acquired by France (1883) through s. de Brazza's treaties with the chief of Loango and other mative rulers. The Kwiln is the muly consiterable river, bat far from the sen is not avalable as a trade-ronte. The most important place is Loango, which is visited by French, liritish, and German steamers, and does a fair linsiness in rubher, palm oil, and ivory. It is little mome than a collection of European traling-factorits, though when it was moler native control it had a population of ahout 15,000. It: imfortance is the to a sharp bend in the coast, sholtering the roadstead from the prevailing winds.
C. C. ADAMS.

Loban, bow: an island in the river Danube: 6 miles below Viema, It was taken by Najulem l. May 19, 1s09, occupied by the french army after the battle of Aspern, May 22 ; was the place whence the invaling forces were concentrated in June, and where the cobebrated passage of the Danube was made July 4 and following days, 1 s09. This island gave the title of coment to Gen. Nonton, one of the French heroes of the campaign.

Lobau, löbó, Geories llotons, Coment de: mamal of France; b. Feh. 21, 1760, at Phastourg, France: eulistad as a voluntere in the army in 179): thecime aide-de-cemp to Meusnier in 1803 and to Joubert in 120s. He took part with Massenal in the defense of Genoa and was severely wounded in a sortie. Raturning to France after the capitulation, he was made a member and later an onfeer of the Legion of Honor by Xiapleon, who apminted himg general of brigate and his aide-te-camp in $1 \times 0.5$. Thenceforth he tonk part in all the important campaigns of the empire, distinguishing himself it dena, at Friedlaml, and mulne Bussieres in spain, where he commanded at division. His tith, Count of Loban, was won in the campaign against Austria for the services which he remdered during the oeenpation of the island of Lomban, and for the stoming of Fasling, in the battle of Aspern. Ife was rough and bilunt, hat enurageoms and skillful. Aftor the Russian cannaign he was at the head of the organization of a nem Frend army, and in the battle of Waterlon he commanded the sixth Army-oorps on the right wing. After the foratoration he wals hanished from France ame not allowed to return until $1 \times 1 \times$. In 1 nes he was elected a membor of the Chamber of Doputies, and he took a prominent part in the ewolution of 1 s:30, asommed the command of the national gham instad of la Faycte. was mate a preer and marshat in $18: 1$, ama put down with great success the uprisings of $18 \%$ and $1 \times 34$. D. in laris, Nor. 21, 1838.
F. M. ('ulbs.

Lolbly [yiâ O. Fr. or Late Latin from Germ. © ef. O. II.
 sons who, not heing members of a legislature, ary engared in influencing legislators to rote for or aquinst partionlar mensures that come before them. This meaning is fonderes due to the fact that persons who wish to consult hegishaturs are
often to be met in the watibules or lohbies of legishative
 enne, it is of course true that mach of the inthence exemed


The conses of the raistrate of the lobon in comartion with nearly all lurislative bulios berom exident on briet consiol-
 spurialists to chable him to form inn intilliqent juldement on very many of the gantion that come hefor him for action. (2) The atom of lemisition in voghe in the U. S... under
 eration thefore they are brought fur final attion before the
 ing in the ricinus selue of the wort. (fin) Cmber the I . S. system of leqialation, hills that are phedy heal ar privatu in
 insteat of being treated semi-jodicially as in Vmgland. (Lre Lamakiva, Metmms or.) Chnembently, it is uftem pmaibe for an individual or for a corpmation that has gent interents at stake to gush a monare quietly throngh before its real nature has been discovered. (4) For the same ratan. a di-honest legislater may bring in a bill that if pased would surionsly injure seme corpation, and furce the lat tor to pay him to drop the measure. A ditherent systom of treatment of private bills womblenable surh a compo rition to expose the real nature of the injurions bill and the motive of the legislator more effecintly than is jossible mo der the present system.
The methods of the lubly while, of course, almost numberless, will still viry more or les with the fosition and charater of the Joblyit. At times mombers of the Legrislature themstres will undertake, fur fry, to carry measures throngh. 'lhey may cmploy, in andition to the methods used be others, that of "log-rolling," i. e. they may agr'e to vote for or arainst certain bills favorel by other members in exchange for a votegiven as thex wish. Unly members, too, can make to advantage a "strike," i. e. the introduc tion of an injurions masure for the purpose of heing paid to drom it. Ex-mombers ofton mak" dangerous lobhyists from their complete acquaintance with legratative methots and men. The most dangerons, because most successful, loblyists, however, are those ex-members or others who make it their regular business for jay to aid or hinder the passage of any measure whatever at the will of their patrons. Such imen in the comrse of yars come to how all the details of legishative business; they ate fersonally acquanted with all the legiskitors. knowing their hiviury, character, hahits of life, and bow best to sedure their favor. As soon as a new member is rlected, his recturd and bife int personal character are stodied, and the lohhyist som learns what are the most effective means of inthemoner his vote. These means will, of course. vary with the individual: and they range all the way from bate-faced britury, threats of exposing some past mitake or crime on of pronting a reflection, to the most onbte and intiret methond of inthencing the mind. Articles are writton fur the papers, letters and taldams are sperred from constitnonts. somial attentions are lavished umon the legishator. lamis of money are made him, entrotaments atre prowh for him, anything is doble that will probably affect his vote for or against, as may be doniret.
The remertios for the evils of the lable are diffent to find. becames these ceils consiat in the athe of privilutes Whish must be granted in order to sumge the mest effedive
 reammend new laws or give nuded infomalion. The ex-
 lishod the followine promsitions: (1) It is war that the separation of private matames from public, so tar as is fus- $^{\circ}$ sible, and the trentment of the former in a sani-julitial maners, with full monice to all partios interemed to apmar
 against hasty or seded legidiation, womb remose a harge
 in part. In Sew Kork, after the expente of the tweed
 of corruption, and th this day the rejurt that at hall has money behind it is emongl the canse many timit membres
 compse, erery measure or 'hange in pmblic smotiment that
 or morally lesens the evil influche of the lably. (t) In
 stitutions have reatricted in many wity the buwer of the





















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 tho－－

 （13：












A．li，Masin．






























 well in whe lull don rather than in we mat mathoses since thorer then eirembaners whiting takes phace before


Ravind ly If．A．ILare．
Lohelia cardimalis：somentife mame of a sure ies of lobor


 tim．The haw and hright－han flowered hothelat largety used in a lumbing－plant，is L．erimus，from the Cape of Good 11 川い．

## hahbolly Ray：See Gorbonia，

Lah Nor（hab lake）：a landy of water in Eastern or Chi－
 The lertile assis it ocouphes is lurthered on the s．ly the Altintar range aml surrounted on all other sides liy the
 and lhines writeremb map－makers，the first burepean to bsit it in mulath limes was Prejevalky（18ig），who fomb that it is a remely latio of mo grat deph，bomered he dat －hw the hant of immene manture of water－fowl，and in－
 ments，and mone of lif．resembe the of the primitive lake－



 the lake，which is hum（bunalot，ls 90 ）lithe more than a m：insh．

C．C．Abams．
 thening is kuown of hiv life：the date of his birth is mor

 man iw of Leria，and sems to hive bem in the entourage of the Hmpe de Caminha．Jla is vin to have stuclicel at （＇，imbra，ant then tu have pared hi－life in comprative re－

 of thof writere．（coming at the begiming of the seven－
 still promewi thestrmph and bemutios of the preceding wotner．Il，foll the intheme of contempory spanish puetry，motaly that of riengom，and he was familiar with the wirls of the lablians；but la alse laved the tratitional and p＂pmar vara of his mative ham，and his greateat sue－












 Lamm，1汸）．

A．li，Mansif．


 in 16:3. llare he whred with great sumeno, lut was at



 16is. Labo wretr a marratise al histravele, which mate a



lavised ly F. N. Cums.

Loho'sa [Mod. Lat., Ir. Gir. Aoßós. a lumel: a suhtrlase of
 the power of protruding lobe-like fromesers ot protoplamen




 "xpands and antracts. and is supposid to ba for the "xare-
 are maked. but the majority fomm potectiner casce, wither as in Arevella by a hambame secercion of the bung or, its in Deplougia, by aramentmer turather grains uf samd, etc. A maber is possibly the best known member of the l'rotozat. All of the lahosa are microscopie, and mont of the sureies ovene in fresh water, mbly a fuw being fonmel in the sou. The Americim speries have bean heatifully menmoraphat in Leidy's Frosh-u"uter Rhizopuls, published ho the [T. s. Geologicad survey.
J. S. Kintinces.
 small islamds off the comst of lambiyertue, I'rin, between fisur $\%$. lint. The Loboule Tierri is 10 miles from the mainland; the other two are atbont :at miles out. 'Tlaey are rouky, hut of mus grat heinht. and have a small jupulation. They are important for their extensive deposits of gualmo. heing amonir the few of the Perusian guano islands which are not exhansterl.
II. 11.

Lobster [0. Eng. hoppestre. perhaps emrupted from Lat. locus'tu, lorost, shell-fish. luhnter ; ef. O. bing. lapuest, lorust]: one of the harest and most ratualde of all frustucere. and secomb only to the oyster as an anticlu of fond among the marine invertehrates in the North Athantic comat. It is classified with the Murrouru, is sub-order of the Derapoter, which embraces lohaters, rayfishes and shrimps. "Jhe European loister, Ifomurus rulyuris, has its chicf habitat on the southwentern coast ot Jowwiy, but is foumat throughont the British islamls. on the coast oit [culand, ami in the Jlaliterranean. It dow mot for into ther Baltic. 'The langouste, or spiny lotstar. Petimurns calymes, aboumats in the Maditermaern, but is rare in the Athantie. The Nerworian lobser, Aephrops norergirus. is exmmen in Norway lint hess abandiant on the catast of Sweders. It oedors spariagly in the British islands and in the Membterramean sua. "Tle
 portant eenmomically than all the preceling, is lomm in the roastal waters of the Adnontie beean form latiralore to Delaware and in weptlas extenling from the slone line wht to 100 fathoms.

The extreme northern limits of the North Americ:m lahster are the Strats of ?mble Isla. Nova scotia, Jrimen linl-
 constitnte the grat lobster-prombeiner turriturs of tha thdantie coast. If luw lobaters lave bom dolected as tar si. sa dohnstomm, Via, amel in lsst the ['. S. Fish ('mamionom steamship Abatros ohtaimed al momesi\%nd sumimen wif (aple Ilatteras, X. ('.. from a depill of almat (i) fathoms.
 to and from deep water. "The spriner momenment towar] shore nevors in duril or May, when the temperatare if than
 O B thbar or Sovembr.

In Nainc the momer fishine lowime in laty amy lante
 $\$$ to 10 fathons of water. Thu winter timing is combucted in $3 \overline{3}$ th fo fithoms.

The lobstar nerer swims at the surfate of the watere bat



 chams, fish, antul all kinds uf dand amimats.














 little hater, atal al few maty he hatohed in the latl. The hatchang of a simele bomil lista about ia wowl. Shontly



 Iner varios with thesian of the animal porlarmar thom-Trom



 cygs awry in ene erithanticul seriss.

Acerrling to this law we have the following :

 sueh as the pollotk, striped base ibul tantow. tha sharks,
 most furmilable enemins, exabting always man, "suatly

 been instrumental in hastening the derline of the tishery.
 external steleton, whinh is a dotad, inclantio pmaluct. and mast therefore be rast att perionlically in order to admit of arowh. Thet tramency of this exatiation or moltime depends upna the age and matrition of the animal, and is the register of its growth. Duming that tist fome numbla of its life the lubstremmits fom "iorht to ton times, the alult fer male probathy not oftencr than onee in two yeare, and the giants weighiner unward of 20 ll , at moch longer intervals.
 fion bust, and are theretore mont valuable for the marlict.




 of the lack until this fimally hurnts. ant the whole bendy is

 fronn thar ahl cowering, and the tail comme ont lant. 'The

 leiner simply witherawn from the fulde in the axtarat skin













































 formentan impertan fonn-and th the inhathitanto in the

 Whatal to the was of Maim. Howe and in the Martime

 filline. The growth of the fillaty wat comperatelat with that





 Anva -mblas.
1, wikiting for the prowtion of the hater. hawerer











 with thllo. ant we nither in single wall or in trawh of





























 an in :




 "as mate that man fourth of that of the cotire yind of the titherim of tha state beine soithas. Ballitin l'nited Sates Fish fommension, wol. x., p. lias.











 Trase in the number of trap and fithermen. as at resill.









## 

Lowal Wetion in the whitive enth: chamical artion which How- nun wherate enrent in tha onternal cirenit. and conseghently fo a theme of dos. Sec Partery.
Lacalizalime: the act of hecalizime or of axigning a
 merlicithe the detwenination of the site of urgan in which pheienl and mortid precesse originate. or the prowes ly









 [w. hals hor hemiepleres of the brain we lind a twofold or
 While mernming the lar a sumbe function. In regard to the function of the hrain as a whele we mate say that in the main it is performed ayully woll hay cillur hemiophere ahn". If wh lemithere be entirely ramed or destroged, there is an" Furequthe imparmat if the mind, at hact in
 own rapabla in orparate antivition at the same time the muscument- if urgals on the right sile of the berdy, which

 sidt, gravenal hy the "milur arta" in the righ hemisplume.

 part in them: the menor sumethention is in the beft hemi-









 Whinh they may berform twether ithe whish either may


 furm ahene and in whin the wher has she share.

 Pracmon:


2. The antomatio functions prowed wht from the efontral and termental systems of centors benwath the cerehral hemispleres.
3. Sensation and wolnatary movenmat have their arat in man in the cortex ol the hemispheros.

If 1 and 2 be eonsidered tugether as givinge only one de-
 Sree of enmplexit? athd : he andurl as giving another degree we may show their relation hey Fig. 1.

The degree to whith the contrx somes the prrpore of minal. above ther latre reargtion of fresent atimuli and mechanical reaction upen tham, is seen in the hehavior of animals the prived of the cortex. Froge anml jifeman lave bern folly textmin viow of this dinetion. 11 is fommat. in brief. that the life and ratetioms of the ereature are mammaired sular as the immolimte enviromment is concernen\}: it lives, breathes, thess. sees, tats, earries ont all reactions of romponse to divent stimmlation; but it fals to pespond to remoste stimuli: the reatelmas are for the mont part manthenced wither by the bast on the fia-

 has senwetions. hat nut pererptions. as lar as a line can has drawn between then stals: It lathe uttery to recormize. aml it fails to uttond. It is plaing, then, that surlo a hemisobereless croature lacke larqely the condonating. ratathing. relating. or, an it is ofton called, the "aplereviving." function. The terms poychio-blindues. payderedeaflese, cte. are given to this comdition, in which there is no physicol blind Intes. wte., but in which sensations late lowt their mental momim!. Is for baticular reactions, howerer, the Ereatest ditheremere is found in different amimals. In loges and hirds many functions are performed by the lower anters whith are presided over he the hemindieres exelnsively in monkeys and in man. This illastrates the fact that reactions at ome time rasmable and intelligent may become
 extemded experimental froof, jeats us to reenonize the graat elastieity of the sustem as rearals specialization. Whem these mamed animals ate kept alive. their condition improves, and they begin to get smmething of their interligence back again.

Inoculization in siperial Areas of the forebral Corfex.The question as to whether there are local areas in the cortex or gray matter of the hemispheres which are especially aetive in the exercise of the semse ami motne antivities is of great importance for general jsycholigy. Experiments have


Fig. 2.- Outer surfaer of left hamisphere of the hrain muntith from Exintr): a, tisome of kalande: h, tissure of sylvius.
been very monflioting in their resulte. but it is num qumerally

















 atea below the firare of Sylyin.




 motor cunters of the hrain. Tha luss of comertion lequeen this sut amd any uthel areal cats the hatter with its store of memarion off finm its fall role in the mantal life. For rex-

 Whal-hearines. and warl-ntteriner.
 matning "pen is the dotermination of the jarticular rations


 bility mendiatm? by elements whith ate omp semary? Jay



 stimnlation of the sight (s,nsory) emone (oneriptal bine in
 controls leflex evo-movementr. and that the ere-movement centre in the hojamdie rewion is the seat of subintary mose monts. 'lhis view agro- with tho suggealon of bianchi that the whanary stimmation ot the motor arean does but

 effects following the stimalation ut motor atreas. buannis holds that the motor moments have summerliate element

 retina upen the corlex.


Fin 3 -Inner imesial whrface of the rikht heminphere of the bram
 area is the motor ande.











 1! - :











 ity


























































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 if the truly.












 men in the nome nataral ganition that the local sirn was an maplantal fecoulianty in the struture of the skin itself. A
 mak, makes fle lagal diatimetions in the skin due to the ramitiontmun of the spand-nut narve fitrils, each such
 luath sien. 'This jusition is mosi protnatle. It is sujpurted by the fart that the a minibity of the skin to lowal differemes varias ervatly in diflement parts of the louly aml may be in(rated by the fising of the attontion by exercise, and in the hymatic state. These latter enmbitions tend to bring intoriat fincr $\cdot$ hements of the ramifying nerve, and thus to diminish the diamare betwern the semsitive joints. And the same fards teme torefote the theory that the units of


Besides the weneral eonsideration that some sueh hyouthwis as that of lanal signs is mornesary to the ease, there is dimed evinnoe of the existente of these signs. The fact of rarying lowal diverimination of theskin las been mentioned: it is alon true of the relina. 'lohe rehative diserimination of lexalition grows hes delinate as we prowed from the conter to the alge of the refina. 'lhe quality of massivemes or extensity of semations of tome la and siplat depents upen the smaltameons independent exoitation of mits of sensation,
 charatheristioly which these mits are kegt distinet. If the -kin of the forebent be hent down upen the nose and grow there its irritation is felt still at the foreleatl. The same is tow in the retina in certain patholugical athections, in which the vetimal rements aro di-placerl : the irritating points of limhtalling upon these elements are localized where they







.]. Mark línows.
 lifiond division of a state lo decide apon a certain measure;














 haw ate :





tended with a high deyrue of sumes. maintaining that it is more praticable than prohitsition tive legishative ine or cont stitutional amemment, and hos liable to wasion where it has resulted in forbidhing the sale of lifuns, Where this system has prevailed a larige propurthan of that localitios have prohibited the tratlic. Lamal-m, ion watementsin the varions states differ gratly ind datil. but at at eremeral pale provide that at stated intervals a rartain prometion of the voters of the locality may, "ipum lietitioning the laginlatare, secure at special eloction to abocide the patotion wo prohitsition, In some States, however, the puestion is gerimblially smbmited for decision witlunt rempiring a preliminary fre tition. In Grat liritain the leater of tha lomatopitm movement is sir Wilfrid lawson, the antlor wit the Per missive Bill, who introlneed a localouption resalation in Parliament in 1s\%9. and has sulsequently triml in vain to secure to the electors of a locality the prwer to wotw the issue of licenses. The term loxal ojetion in (ireat Britainalso inchades several sehemes for the reform of the licensing sys tem, and for seruring to tho localities a wider range of powers than is clemaded by Lawson and the L'nitel linerdom Alliance, as, for example, the right not morely to ate cejt or reject, bat to regalate completely the lianor trathe within their bounds.

1+. 入]. (\%LBY.
Lochleven, loch leeven: a small lake in Fifeshime, sotland ; containing an island on which stood the castle noted as the phace where Mary Queen of Scots was inurisomed from Jnly, 1567 , until her encape May 2. 1.56s. The place is now of no military or straterical importance, dat was in the sixteenth century a stronghold of the first rank.

Lock [O. Eng, loc inclosure, door-fasteninis, derit, of lücan, lock, fasten]: an inclosed mechanism for fitstening doors, drawers, lids, etco, by means of a moviablo boht msually operated by a portable instrument called at key, but sometimes by a turning knols or dial.

The ancients, although fussussing great skill in many conspienous arts, do not seem to have distinguished themselves as makers of locks, as clumsiness ajpears to have been the predominant characteristic of all their docksmithing, or rather lock carpentry, for the evidence accessible indicates that the earliest locks were mude of wood, long betore skild in the shaping of metals was applied to the construction of such articles. Without duubt, the first loek wiss made in Egypt, the hirtluplace and nursery of the arts and sciences. Wooden lock: of a rude and primitive design-guite similar to those made 4,000 years ago-are still in inse in Eorypt and Syria. "lhmmpon states that the stewarl of the coment on Mit, Carmel opened his magazine with a key as large as a clab, reminding him of Isaiah (3, c. 7is ) xxil. an. "The key of the house of Divid will I lay upon his shomlder." This suggests the statement of Callimachus ( $\mathbf{B}$. С. 260 ) who in his Hymn lo Ceres speaks of the gotdess taking the form of Nisippe, her priestess, carrying a "key fit to he borne upon the shoulder," Locks continued to be made large and clumsy for many centuries, for Eustathins, Bishop of Thessalonica ( a. D, 1155 ), tells of keys that were curved like a sickle, and so large that they were often earried on the shonhter.

In the book of Juiges, chit, iii. 23-25, we are told that "Ehud (B. C. 1330) locked the thoms of the parlor". and that the servants of King Eirlon "took a key and opened them." This is the earliest mention of a key in histary. Inomer's description of the opening of her wardrobe by Penelope is translated by Pope thus

> A brazen key she held, the handle turned,
> With steel and polished ivrory adorurd.
> The bolt, obedient to the silkenstring,
> Forsakes the staple as she pulls the ring:
> The ward, respond tent the key, turn round,
> The bars fy back. the thine yalves resound;
> Loul as a bull makes hill and valley ring, so roared the lock when it released the siring.

It is elear that this must have been a burglar-aharm loek: and the teribly sonorous character ot the alarm is surgestive of posible improvements in the methanism of modern alarm-lacks.

The dowr-lock nsed in Fuypt, which is the oldost linown

 good example of the "persistrnce of a type" in wnehaminm. The bolt of the lock is rectangnlar in cross-smetien, when at one ent, and hollow throughont the most uf its lenoth: wn the upper surface of the hullow protion of the lolt alro areral rertical holes eommunicating with the hollow. The bult hales in an inclosing box or cave of weme secemed to the insule of the door; when the bolt is pushed in locking (the key is not









 of the stame height as the thitlanes al the wowd throurd
 will gatinto the hullow ont of the loblt and that raison fertically, the pins in its upler sarface will entur amblll the holes in the bolt, and so ratine the gins whinh sidermel it in
 drawn back, thus unlackither tho done. It will loe noted from
 of the term, lant as the lack is semureal to the insinte al tha
 unfocking, there is a romad hole ant in the dowe throumh Which the hatma and arm wan he thrint for that purpmo. There are nos springs in this bork, and if theme had heen as ingeninus in Eastern as in Wistern nations it would hate [rased ont of nse many centurise ago.

I'he tumbler lock is. next to the Eiryptian, the fhlest type of lock, ame there is willeme that the ('himeso inventm) it very early in their lastory. It heriven its namm fram aterer, latch, 1 slide. entering anoth in the holl. whith in consequence ran not le moval until the tumbler is lifted by a key. Thure have bearmathas modifisathons of tha tumbler lack, and it is very uemmally usel, notwithstanling the fact that it can be jicked by a skillful operator.

The wordenl lock was the next specjes of lork invented it derives its name from certann ollotractions of mate or lros irregalar shape attached to the loperease in the path of the key, whicls are intemfed to make it impmoshbre formse the bolt unkess the key has romings in its hit which will enable it to phas the warls. ducks of this kiml wore usell by the ancient Romans loner hefore the berimanur of the (hristian era, and are still very largely ume whon a chentplow will answer the phrpose. "Thair conntruction is very simple; the bolt las upon its top a flat spring, and in its lower wige are cht a prair of motches, one of which is acted upn hy the key while passing the wards, and the other is furavidall with is projecting eurve which when helel in contact with the dower edge of one of the mortines in the case thrumph which the bolt slites, by the fressure of the spring. serves to lond the bolt in its lucked or manemen prsition. The frot ation of the key is to lift the loult slightly against the pressurn of the spring. thas relieviner it from the edge of the mortive and as the kete (antinues to turn the bult is mowel into thas required prisition and the kiey released. This stybut don-k can be ratily picket by the uat of a stiff wira bent at the ent in such a way as to atomb the intricacies of the watls.

The letter or dial lock was the fourth typ of lonk drevised. Its invention las been attributed to 31 . Kignine (ulimetar of
 ably merely an imporer or mamfacturer of a stye of lonek insented by another, fur in lowamont and Foldehers play, The Soule (ientlemen (1615), we tind

A cap-case for your limen and four plate. With a strange lock that opuns with A. M. E. S
Thomas ('arew, in 1620 , writes :
 The lock's as fasi as thmiky juu lawl found none
Regnier's locks wern for a time very popmar, amb were used for the fastoning of diphomatio Injatch-hoses. The have bean described as tollows, vi\%: " Broald smelrings fonir, five,

 when the letters formine a particular word were in as otrajorlat




 been frepuently rpene in in roentut gats withmat a previnus knowlendre of "the worl." but the "peration of walmeking
 com-iderable extent.































 teentll it it.




 whon thoy whe attathol. कombthane as many an twolve








 $1^{\circ}$.



































 tinn with 11 , thin low wan haterly 1 -ad for mathy verars, but









 for introndued brobsh the lev-bube affer the remowal of

 atpuet a kay that would onen the look. 'fhis, while very ingenions anil ellective can mot be regitulod as ilhostrating so high an orter of skill as the purely mexhaniend methods whiol phomeded and tollowed it. Lians Lale. dr., was a highly ineronms and very fertile inventor of locks, and withabl douht contributul more th the art uf luck-making in its highur brinu-hes than any otherimlividual. 'The well-known draw or funt-uflioe lock, haviner a thin that bev, is his invention, and is what is now pophlarly known as the Yule lock. Onn of the mot ingeninus locks of his deoign was called the mamia lack. It ham relimerical hole. was withont springs, land a vory small keyhole, and a key with a detachable bitt, whinlo. when the key was invererd and furturl, was antomatisally removal from thatem or hame amd earried abont 3 inchis : away from the kerbole athl then marle to ate unon the tumblars amb thas enabled the contimmed mowement of the hatille to "pen the lock. This was follewed by the invention by Yale of his treasury lumk. which was a decided imponomant unon the mafie lork, inasmuch as it hatl two
 amb thas tha element of changeabiaty was frovided in the key in ablition to detachability.
 It hat hy that time become evihunt to expets in low constrution that no lock oberatol by a kry were safe from
 further, that the increasing frapurney of the use of gramow
 there shouln the no opening through the door into the loek.
 of dial-lowhs, among which were the surment, with its roller twh and tmmblers changeathe by a key, the Marvin marnet ia late and weral rarioties inventerl by Limus Yale. dr. Many of tha porred dial-lacks rembly yielded to the skill of Operaters, amil timally the grening of the best of the Yale
 parpos. whirl hand also been invented by Jr. Yale. Guve a

 and for at lame the belief seemed tis be reneral that it was imposible for laman ingennity to devise a low that conde not ba poblial. 'l'hic eontition of affairs ramond inventors





 the homer at whinh it was desired to "pend the dome, and at that hour amb wother eoblal the key or onfer means for







 bankers and modehats, lint it wan mot motil the diat-lock







the time allowel for operating with instruments mpon the lock after its mechanism has been releasel and before it is again secured by the clock attached is tom shout for tho em－ ployment of any instrument with suceess．Notwithstand－ ing the security of the time－lock agranst piokiner there was still a rulnerable point in it as unadly constractal at the time of its general adontion－the lock was mot autumatic： that is，it required to be mancked by sombe form ut dial mechanism operated from the outside of the down this，of course，required that a pumble shoulh pass throureh tha door to commonicate the movernents of the dial to the merhan－ ism of the lock．This gave a point of aphiation tor tools to destroy thr lock and an opening throush whid some highly explasive liquid cand he intronlumel．＇These abjections havo been overcome by the invention of the antomatic tinne－ lock，or，as it is sometimes callerl，the falt－motor．＇This consisted of a case（similar to a lock－cas（）secured to the in－ terior of the door．This case contains two very powerful springs which are set by a key（owrated from the inside．as there is no ousning of any kind thromerh the lowr hafore the door is closed：one of these springs is connected with it trigger which relpases it as soon as the donr is shut，and it immediately throws the heary holts into their loched jusi－ tion．The seeond spring in the case is acterl upan hy a cloek movement（proviled in duplicate to gharil asainst accidental fallure）at any determined hour to which the clock is set．As soon as the secom！spring is released by the chock it acts upon the deon－holts with great prower，and im－ mediately throws them into their monded position．＇［here are various modifications and refinements on this gemeral construction，all having for their object the antomatic ac－ tion of the bolts at a certain time by means of powerful springs released by a clock．

W．F．Durfee．
Locke．Darid Ross：humorint：better known unler his psenionymn of Petroleum 1＂．Nieshy；1．at Vestal，Dromme co．，N．S．，Sept．20，18：33：learned printing in the oflice nt the Cortland／hemorrat；was successively editor amd pmb－ lisher of the Plymonth（0．）theertiser，the Mansfied（0）． Herold，The Buigrus Iturnal and the Findlay（0）．Jeffer－ sonian，aml editor of The Tolplo Blade．fn 1 s61 he began to publish in The Jeffersomian his Nashy letters，finally conl－ leeted in book form as The struggles－Social．Finamaial． and Polifical－of Petrotenm I．Nasby（1No～）．Among later productions are The Morals of Alom Ben Adhem（18：す）ann A Preper City，a movel（18スふ）．3．at Joledn，O．，Feli．15． 1888.

Locke，Jons：philosopher ：b．at Wrington，Somerset shire，Englamh，Ang．29，16：2．His first stulies were pur－ sued at Westminster thaol，Lombon．In 16．）he became a member of C＇lisist Church．Oxforl．where he resided till 1664．Here his miml recuived that bent which gave him his subsequent renown as a philosopher．It was partly due to the renling of Descartes，whose clearness of exposition， so much in contrast with the crude instruction of the mai－ versity，Locke almiret greatly；bat Looke owed his philo－ sophical stimulus in part．and directly，to a discussion with five or six stmbents in his rooms at Oxforl，when，as he sits． the thought came to his mind that the only sure ground of harmony in jublgment must be fommel in a preliminary de－ termination of the possibilities of the human mind．This ＂thonght，＂which became the Essuy on the IFuman L＂nter－ standing，was taken up and had aside，and Written upul at intersals throngh a period of more than twenty youls，amd only finished in $168 \pi$ ．In 1604 hocke was secretary of lura－ tion at Berlin：in 1667 he became acravinted with Larol Ashley，afterward Larl of Shafteshury，who．in gratitule for medical atvice，beceived the goming philasolund as a member of his family．Sharing this time he directed thor education of shaftestury＇s som．amm that of his gramb－ son，who becane an elegint philosophicall writer in Gumen Anne＇s reinn．looke was brousht．through his frimul amd patron，into the society of Duckingham，ILalifix．amd wher distinguished men．Whern shaftenhmey beame Iomd Chan－ cellor he gave to him the whee of tha presentation of beno fices ；but Locke and his patron sonn fell into alisfawt．and from $16 \pi$ to 1679 dorke was in Franco，manly int lunt－ pellier with llerbert，later Firl of l＇mbrake to whom ha
 state of his own conntry，ho（lammit wisu arsin in resile abroal．The revolntion of 16 suanbled him toreturn from Hollanal to England，where he filled several civil aflices，amb was offeret others，which on aceount of age ama ill－hoith he declined．Il is last years，spent in the study of the sorip－






 thor，were issural hefor＂him dath，athl atifth，with his lat ememdations，the your aftor，a lonth in brab，add the thir－


 tions in fifty yours，it was alse translatod into latin．into louth and German several times，and since into mondern
 popmarity and extensive influment the Exsuy．Acreasons torthis may be mentional－tirnt，the anthors fultio and so－ cial position，complel with the clearness ami asomrano．if not almars the selfeconsintency of his utteraneves．Dlthugh wanting the combensation and celital puwer of such writers as Kant，his Englinh ranke with the beat prowe uf his time ： and his familiar stye，lerived from the rotined surfety in which he moved，was a help to hiv popmarity，as his pablic life was alreaty an intraduction to his authurshop．
 In his work on Cieil formoment he adrocatom tha rights of the penple again－t the arbitrary lale to whidh they were bejng snbjectud．In 16ist．by rimpr of Jis Majosty，he Wa゙ expwlld from his benefice at oxtorl，and Was an exile on account of his tom frem uninions．Whe might lave not with sir l＇hilip tirnary＂s fate if，imotead of boines secreter in Ilolland，he had fallen intu the powar of the king．Un the accession of Tames 1 I ．William Pemn propused to proxure for him a prarton．but the philusimber＂s noble reply was： ＂Thare is no need of pardin where thare is no crime or fault．＂＇lhe above reasams，however powerfal as anxiliarito． would not suffiee to account for the influme of the Exsay but for the thind－that the timos fatrored such a work．＇The pserohohnical tielld was mot much exphntik，and in attempet ing it Coches slowed int indernmence which drew attentiont
 were disposid to aeceple anthority，and for asome that re－ ligion combly find its smpret in finth，without any help from philesobly，or even adranst it．It followent therefore that unchristim thankers fomm smport for their farorite than－ ries in the currant and arepdend jhilmophy of lonkw．＂To－ Ward 17．00，＂says Cousin，＂the principlas of lowke wore spread throngh Eurobe：thes were develoted everywhre else，as will as in Enorland．＂＂This indiontes that the time
 －Pared hotworn the sornhtednth and wiwhtomath conturics he forms the transition from ante to the what．In finet，run
 tury，there is mot one whadios mot invols tha anthomity uf


 tirry＂（C＂onsen．）

What the Larkion lhiloswhyly is．－Its alm is＂ 10 in guise into the micinal certahaty amb＂xtont of haman knowhtura．＂W＂ith this in view，the aththerstrive th show
 fon whaterne is in tha mimh．If any of theo are Emata，
 is．＂．or＂it is impussible the same thines olmahl lue and ant







 he farmishat？Whemoer has it all the matherial ot ratam








































 （1）！ 10 ） $1, \pm:+3$
lackharl．．lany limeos：anthor：b．at（＇amhmsmethan，



 his atides wer＂remarkable for viror and seholardij：


 was ente of the writere of the ．Vestes．Ambionsimer．I）．at







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 fatoriac．＇The wity is the spat of the central state Normal





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 number th the enlargetment of the eamal in isis．＇lhe sur－ flus water at the biper level in dindarend thenght two ramen，with with a fall of ins fott to the lewer lesel．thas shly dhatrien inchata tha manofacture of llolly water－works






 comvont and yound ladiss sumany，the lelagher Emergency Hospatal，：humas for the frimelless．：mathomb banks with
 a weckly， 3 somi－werkly，und th haify newspapers fop．


ドintur or＂L＇sios．＂
 journalist amb politiolan：h，in learis．July is．Is 3 ：accom－
 in（iabilahli＇s siodinn expedition，and roturning to France Wroto for the nowshatros some artichas which paused his condemantion to font month imprisomment．Ile was an original momber of the National lasembly 1871．As ed－ itor of he Penple sumernial lo again erot into trouble with the antharitios．and was comdembed to a brief impris－ onment in lsor for his dund with l＇anl le（＇aszagnac，and in LSis far a newspaper artiole．lat Laberation du terri－ loire but in the lattor year was elected to the dssembly． He witel with the extreme Jeft．Keturned by sucees－ sive eleations．he bexame llinister of commerce and lat－ dustry 1s－6－si：Ministur of luhlic lustruetion in 1858，and dirmeted the organization of the Exposition of 1889 ．Be－ sides his mewspaprarticlas．he has published several vol－ mome，among which are il bas le Irogres（1ベか）；La Com－ minne pt l＇Assmblér（18：1）：L＇Tle réroltée（18：7）；Ahmed le bonchor（18ss）：and Jowmal drup bourgeoise pendan！la límolutem（ 1851 ）．

Lonkwool．J3fisa dss liescett ：lawyer；b．at Royal－
 tandit sebmol at fiftern；was married at eighteen，hat lost hor hanband mext year：wrote for pipers and magazines； ［rambates］at Gemese Collent lima，N．K．，at twenty－seven：
 Lankwond in 1 sis：sthatiod law ；gralnated at the National （＇niwrsity at Washington，1）．（＇．，and was arlmitted to the bite of the bistrict in 1si．3．she was momimat in 1888 for l＇rambent of the L？．S．by the Equal Rights party．

## Lisan lb．Anthosy．

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 ramb wrll kamw thrmghthe diseovery，mate indepentently
 ghowin hydrogen，and rombl te oberval an any elear day with a sulfarontly fuwarfal spectroserne．＇lhe french Seademy bommenorated this romarlialide adrance in the methends of investigating the gases atomat the sin ly st rik－
 hav primalially devoted himsalf to andent ast momy，solar


 －Indications（1sia）；Situdios in Spuctrum Amulysis（1878）； The Hetrorific Ihyputhesis（18！11）；The Hentn of tivtronomy












ated in mediene 1 R ? 1 ; establishol himself in his profess sion in bonton, and in l840 was appointend, on the remonmendation of Sir James Clarke, physiomanomeheur to the Queen, hy whm, in recounition of his sersome, he was created a haironet Apr. 14, 1595. at which time he retired from the active practice of his profession. In the same year he was chosen presibent of ite kowal Medical and Chirurgical suciety, and hecame in 18fos bonomary president of the ohstetrical sumety. D. at Ryde, duly $2: 3,1$ sis.

Lacomotion or dnimals: Se Mecimites, Amimal.

Locomotive, or, more fully. Locomotive Lanime [locomotive is frum Lat. lo'cus, plare + move're. mo'tum, mowel: at engine monted on wheels and carable of selfpropulsion; commonly one operated hy stem amd intemed for traction or propulsion on a railway. The railway locomotive enginie illustrates better than any wher form uf motor the lighest art of the engineer in the concentration of power into minimum space and weight. The machine consists of a steam-boriler of compact form, filled as completely as pussible with tubse which convey the furnace-grises to tho smokestack and transfer heat from them to the water in the boiler. It is mounted on from four to twelve wheels, according to weight and slecial duty, and is driven by a pair of engines of the simplest construction, each compled to its own set of wheels on either side of the lemmative. 'The whole combination, boiler, engines, and wheels, is comected by a frome of wrought iron in such at manner as to give thaximum power in minimum space and weight. The steam presure is often 1:0. sumetimes $800, \mathrm{lb}$. to the square inch: the speed of piston and of revolution of engines and driving-wheels is as treat as possible consistent with safety and freethom Irmonserims risk of heated journals: the ration of expritusion of the steam is low. and the mean elfection pressure high: and thus all conditions of devign, construetion, and opreration are made to concur in the prombetion of a compact and powerfin] machine capable of hauling trains of enormons woight or at very high speed. The smallest kimls of hermodive arr' those emploged in mines for drawing small trains of lisht ears or warons to the shafts: the heaviest are rmplosed on the prineipal railways of the U. S. for hanling long and heavy traine ur ascembing step gradients. The fopmor weigh about $\mathrm{s}^{2}$ toms: the latter sometimes woich 100 thms. e. If the famms entime "t49" of the Kow Fork "entral hailrond. which firat made at record in 189:3 of 102 , and later. in exceptionally faworate circumataners, of 11 milu an hour-the highent speed yet rearoted. It has a exlindri-
 tubes, non-eondensing engines. threpported valves, withitephenem links and gear, and a steim-blat promucen by the actom of the exhanst stem. The arrancement and number of wheels for fast and mixel trathic is ushatly as that shown in Fie. 1 , but the size of the driv-ing-wheds and their number vary with the duty for which the machine is constractenf. the number heine increasel to a maximum and their liameter to a minimum for heaviest and swert trains.
 6t feet in lianeter, abal in - pecial cane whols as latron an feet in diameter have luatr athoted: the show and puwerful engines of long line have whects as small as a in diameter. The forward emi of the engine is oftentar-

are wiven the engine for surial work. The Frambe ungue

 1 wo furnaces and thas giving tha hatheng bure of two common envine built fur the same ratuge 'The Formy lownotive unites tomber anl envine on a chamen frame; :und thus distributes whifhts of furl :hat water to the drix-ing-wheds to give adhem imm adhal hating power. The












 1－1）！ $\mid$ かり






















 transfomation，and highe omanny of＂reation without such wrina exataptation of therina！wates ronsequent
 Wratige cylintor，whish，it the ammons simple ty at

 all the hat and otame and forl in the－imphe maine and abont onc－furfh in the enmumand．The lattor thas sames







The stambard agine naw ：












 5Tablle．$\ddagger$







 fonnotion of values emphom．The walver are arranged and the enveral dimpoition of parts is an in the stamard ＂hatice of theo ald furm．

The intereptime walse is unol to atmit stam to the

 What，amb ma comb－ munteatim is＂un latwond ther ramer and the large＂ylin－ dur，which lather talien tham thremogh

On starting tho whamet from the suall revinder dills the rewiver，and the batk promme taking atfer（s）the inter－ ratitic－valorand at－ strening its equilit． rimm，it at whe mosers，athl the Jatrg eylinder takes its stan proprety for cumpund working．
This engime hits the following dimen－ －uns：＇ylimhers，di－ amber． 20 and e9 inchus：：stoke of pis－ the ：$\because 1$ inches：ratio of exlimiters， 21 ：di－ ameter drivers（ti）tix inchas：weight of en－
 beating－mfare． 1 biti
 sof fort ：frate alip－
 （it）the driserv．
In the Whatell fum of engine the constraction is as
 valw，（mane ion，（＇the rewiber，I）the exhanst－jipe，and $v$ and ${ }^{\circ}$ ate the starting and the interepting valves．The chgine bere bakn for illustation is an English passenger luanotive，having 16 and $2 \boldsymbol{d}$ inch rymders， 24 inches st moke，小rivers and inches in diameter．The stam－pressure is the same as the preceding，and the worght of engine 97,000 15．．．of whind fis．on rests on the driving－whels．The areas of hating ath！grate surfane are repuctively $1,323 \frac{1}{3}$ and 1 at



 wir．Prom which it pases into a third．large，low－presure rylimber bedwen the frames．The high－presure evin－ dets drive ona pair of whels and the low－pressure celinder fis comerted with the himber of the two bitrs of drivers．the

 added，blay are coupdet to the small angines ame their

 in surise，is will in the exporimental stage，lat promises， with all higher stam－pherurts than mow customary，to give further wombers．

Tha conts of＂aration of the lemanotive abrage in the




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 Thursionis Whatal．
original settlement was om Cape Zephyrimm（＂apo hi Bruz－ zano），near the routheast wint of the（ahamim peninmata， whane the name riven todistingui－h the colnay fran the mother－country．Whtimately the settemant wis Frmowed is miles farther N．Loreri was celebrated an the first brenk state to adonet a written conle of lawe the authomhip of which was ascribed to a half－mythical legishator．Zadeuch．The bu－ crians were long in hostility with Khegime and＇rotona， and in allance with syrachse．The younger hinhsius seized upon the citadel at Lowri on his expulam froms Syrat case（ 596 b．C．）am carried on a despotic woverament unt expelten six years later．Wuring the wars of the lomans with Pyrms and with the Carthatinians，Low ri alternatuly facored all the contendine parties，and consumpenty anf－ fered by turns from all，especially from the lamans，wha were finally victorinus，and followed the eximple of l＇ymhue in plandering the fanous temple of Proserfine．Frin this time Locri sank into insimifieance：ita res exintome for many centuries is known only liy pasages in genraphioal treatises．Destroyed probathy by the Saracens，its site ro－ mained unknown until the inineteenth century，when the remains of the walls of the two famous citadils and tho fonndations of the temple of Iroserpine were discovered is miles from the town of（exate．

Lo＇cris（in（rr．Aokpis）：the ancient name of two pritions of the mainlami of creece，inhabited by a kindred petplat having the name of Lacrians（ Aokpoi）．The eastern Luerians， divided by a projectins tonsuc of Phocian territay inte two divisions，Lucri EPMenemidii（from Mt．Cumbis）and opuntio（from the towi Opus），inhabitel a narrow strip of land along the castern const of（ireece opmonte Eabiorio． The western representatives，called－for what rewon it in not clear－Locri Ozolo（i．e，having an olnor），weupied a territory shat in by montains on tho Corinthitan sulf，ha－ tween Atulia，Woris，and Phocis．They were proworbally a wild and uneouth perple．

G．L．Hexidichems．
Locus［＝Lat．，liter．，place］：in geometry，first，the line or surface generated by a peint when moving acembling tha fixed law．Thus an ellipse is the lon us of a print whinh moves in a plane in such a mamer that the sum of its dis－ tances from two fixed points is always equal to a diven dis－ tance．Secona，the loens of a line is the surface semerated by that line when moving acerowing to a dised law．Thus at hyperboled of one sheet is the luens of a stratioht line which moves in such a manner as to fouch there other straight lines．no two of which are parallel．To find the equation of a locus we have only to express the law of mo－ tion by one or more indeterminate equations．
The following example illustrate＇s the methot of shlying geometrical problems by the pinciples of laci：Let it ln required to construct it triangle whome base is equal to a given line．whose area isergal to a given area，and whesp vertical angle is equal to a gison angle．Draw a line Als equal to the given hase：on it．as a
 whord，cunstruet an are of a cirele ea－ fable of comaming the given angle： Jraw a line 1）（＇parallelt tio 113 ，ant at at distance from it equal to the guetiont of the riven area by half the lime－IB： and from either pint in which this line interspets the are，as $C$ ，tiraw（ A and $C B$ ：then will ACP be the rephired triangle．Furlot is the luens of the wertices of all the triangles whone com－ mon base is A $B$ and whome areats are＂qual to the wiven area，and the are AC＇B is the linus of the vertioes uf all the angles whose shles pase thongh $A$ and $B$ ，ant which are equal to the given ansle ：hence the prints of interection are the sertices reguired．If 1）（＇muts the are in two pmints． there are two solutions：if it is tament the are 1 here is but one solution：if it dman minternet the are，athl in mot tangent to it the solution is imposilate．

Revisell by R．A．hobert．
Locust［from Lat．loms＇ta．Jocust，gmolnopur．＇p． Lobster］：properly，the migratory lement of the aid Wind （Edipode migratorium）and the：lacuat of Western Xorth America（Caloptenus sprotus）．The term＂herust＂is aften
 Craba．）The transformatione of the luinte as in atl the grasshophers，are very slight，the Jarva hifferine from the adult chiefly in tranting wings：but even in this tatno thay are said by African travelers to travel great distimeses．Tha eggs are large long，eglimbient，ame lan hatm in tho sum－ mer in packets of about seventy－live，resembling encoms，in


 mentary canal，whith i highly develnhed，the giozard ho－


 vary stanh are highly heronnod，the larg jaws further


 are two vesiofes stuated at hlar hane of the himblandy or




 Western Asia，and Sonthern Larome anmeme onvoring in Brlginu and England．It is sad on travelahont 16 mites a fayy．It molts five time al intervalo af atmot six weeks． The loomet is eaten and is continded mutrition－by the mat tives of the emmery in which it is fomme．

The lecust of Nurth Amerios is the wibly distributed


 siphi river，thounh neca－int－ ally fomm in New England． The eatern speciea dua the mont hamage in Nirtlam Suw Enghnd anl l＇anatal． The werarn steries（spmotus） hereds most abomhatly in the clevalem fortions of Col （Hinh and nortloward，am？ migrates to the plaminelow． It also breeds atmoleantly in Fowa and Mimesota，amd is so ratacions as to drive farmers fron their land．
 The range of the sportus are hatehed in March，April，amil parly in May in Texas． Cobmadn，and Kansas，amb at one herin their ravares．
 becomine fearfully dometive，thonghan matractive he－ fore acquiring their wing ．They are more active by night than lyday．Late in summer athanant to they lucume that an wherver in Texas has setol＂thet whate surface of the earth on braken ou he their hurige that every inch of


Lurusi（in lat．lowestor：a trex ter hnically mamel lob－ binio，in loner of John linhin，horbatiot to henry IV．of France，and of his anno Verpaian，who first cultivated it in Eurnor．The leatitul wems rewivel its mame from lin＝
 family Lequminoses．The fire－twathed calys is－hort and slighty twoliphod．The standard is late emb rombed， turned hatk，and saredy hinger than the winge and berl． The－tamme are in two bumllo－i．e．Iladelphons．＇lhe

 thin，that values．Satree culd－pimatu，with tipuls at the










 woul is remarkable for it－atrough atu！durahilys，atal for






 the thowers．the lochat is y．ut ．．．infuitul hy mans kinds of







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 E．1．N：Now．











 unt limplund（15：94．







 Hone and narrow hrider madre the fall lime of the duatrian


 of the phblio halding ate worthy of note．The cathedral date from tha twith matury，and oher charehes contan
 of much movit．＇lthe whational and rhatitible institutions


 bit in the fanma－l＇amman whese which is made in large


Lodz：aty：in the government of liofrokow，Rossian


 lishmont of cottan－manfathres has mate it the second town in Poland．Poy（1s：13）136．091．

 Rline and shmedumily extended to depoits of similar alymance in other conitrias，whid ware formed，however． muly varime comblitions，and in some instaness deserve in－ dividual names．At many lomatities the lues rests on or is includel in slacial donsits，and in all cases is referred to Plastomenerrenat times．
rhuruftristios－bane is an execedingly tine，usnally

 quaty，which make up from bio to an fer enent．of its mass． therdher with similatly mown and moderomposed frag－ monts of ofhriminerats，and contains alson sumiciont calcinm
 si\％of the frisments compusing it is hess than 005 of a mil－ limutcr．Alfhomg usually homogeneons，it sometimes
 Iocalitios the stratification is so ohseme that it can not be

 amd tand in rortiad walls mader rarime climatie condi－ tions for many yars：this is due to its pornsity，which
 retemion of manture，terether with its physical and demi－
 tur＂．It is frepronty traverad by small wetical mbes．and ＂antain ham mondiow or con retions．ol varions shapes． Fowsibate unally satire，bat at time hat shells orear in almaname，and frob－watro sholls and the bones of land amimatsare sometimes fount．
 the brotere of the valloge of the lhime and banue，and in a similar funition alohe ile Mississipfi．Miswori，lowa，Ohio， rtc．，wher it is kmow ac the＂hanf fomation＂．It also
 Ohor combtrins．A drpoit aplarently undistinguishable from the lown of dia forss many of the vatleys of the arid ragion fotwen the Rowlo Mombans and the Sierra Nemala．
 riweralless，fondher with wher fratures hats led to the

 mew athl highly whitgel with whatial sitt．In many in－








 of hat blown from aljatel dorers．This explanation is


the valless are filled to the depth of many hambrets of feet with material having all the essential fobature of the loes of Asia. These demosits, named "atube" by the pres"nt writer, are compersed of fine amgular mindral framoment washed from the neightoring monntains, dut alle stall in
 streams, the precnliar topographic features of the lonsin refion ol Asia would he reproduced. (See letaya.) (omsult also Intifless Area of the LPper Mississipui falley. by Chamberlin and siblishory, in sixth Am, Rep. L. S゙. Growl. Surre: I'trisforeme Mistory of Jorthmestern Ioved. by IV .I

 Rassell, in The (reolouical Magmzine (1mandon), vil. vi.

## Israel (', Jicsoldad.

Lofoden, or Lofo'ten: a group of istambe situatem lom-
 northwestern coast of Norway. The lirgent are Antio.
 high and rocky, presenting wild, rugged, and doeply indented consts, and rising in some phaces of the interior to the height of 4.000 feret. The inhathants mumher" about 30,000 , partly of Numwerian, parlly of Finnish desente. Sheep-farming is carried on. and abong the cossts of the forres a liftle barley, outs, and potatnes can be coltivated. but the islands derive their innortance from the immensely: rich fisherios, which eanh smmon employ newty 30 onot men, and form a source of natimal wealtlito Norway. When the cod-fishing is over, at the enm of April, the herriner-fishing bexins and continus the whole summer: also wreat numbers of lobsters are caught. "this fishing is not withont its dangers. The currents around and between the islands are so rapid and tortuons, and subject to such vinhont changes from ebhamd thook, that darimespring amd fall, when haml weather sets in, these wators ofton berome manabigit ble. Even whales are sometimes dashed to pieces agrimst the rocks of the coasts. Sie MAELstrom.

Log: an apparatus for measnring the velocity uf a ship at sea. Usually it consists of a women flont. Weirhted on one sibe so that it will float upright, and having a line at tached to it tu such a manner as lo bring the flat side of the float so as to offer the greatest rewtance to a force tembing to drag it throurh the water. The attatched line is about 160 fathons in leneth, and when not in ase is wound on a light running reel. The line is divinden into equal parts, each of which is egnal tor tio of a namenal miles the points uf divicon being marked by knots formed by passing pieces of twine between the strmits of the line. and leaving the free endx to project on earh side of the line. The first knot is placed at a emsiderable distance from the that or low, and is very prominently marked. The part of the line between the log amb the first knot is callod the stray lint: its ase is to allow the lig to heconme sottled hefore the comnt is commenced. To use $\mathrm{t}_{\mathrm{t}} \mathrm{r}$ lon and line the lug is thrown over from the lee puarter of the vessel, and the line is than unwound from the reel as fast as the versel sails. It the instant the first point of division passes from the rend a half-minute simm-irlass is invertm, and when the hast simm! falls the reel is stoppen. The mumber of "dral sames that have been unwomal imbiates the number of natutial milas the ship is saling pery homr, inasmath as at hate minoter beats the same relation to an home that men ol the divivisus of the line dues tor an natical mile. "lhe lom is thawn from time to time, and the results are roeordod in the loselowk, To secure accurate results, the line bombl lat an matral as to prevent stretching. To gharel aganst variations of
 rated with oil. "If it is fommal that thar linw has chanimul in lenerth. a correctim munt be apylionl to the mosamed rate


The sor-callend patent horemsists af at lirht ran af metal
 line and thrown over the ships talfail. loln drawn thronel


 that the miles malle are indie:ated on a dial.




 flour, woulen qooms, furniture, and fommery fredncts: has a
 new:


 Falt Lakt ('ity. ft is in and agricultural mm! minimer ro-









 the name of Tah-wah-jute hat toma alai the mama of his

 Ways friondy to the whites until 17it, when a porty of ratians maridered his wite amel all his chilelrev. It that time la livel near the ohbor river, having remowed there abomt 1:6\%. For six years after the marier of his family Logen and his frollowers kept tho Weet from I letroit to the Ilumbun in torror. ind slamghtured great mumbers of settlers. A wrdl-known amd clongent speceth which longan sent to tho whitos by the interpreter a Cew montlis aftor tho* mmater of his family is preserved in Jefleron s Siotes un Firginim. bon its authonticity and the arcuracy of its statsmente are opmen to surisus juestinn. Lagan, while intoxirated. attackel a barty uf friemdly Imalans at Detroit in 1780, and waskilhat in the atfrat ly une of him wwn kinsmen. I aranite monmment was areoted to his memory at Fair Mill 「emetery, near Aubmon, Cayma ca., N. Y. See T'i-guh-jutè. or Liequen the Indeien. aiml ('aptain Mirhutl (resur. Wy brantz Jiave (Now York, 1sif\%).



 several terms, and was a warm prort isan of fetfersum and the Repmblican party umler tha meministration of John Alams. In 1794 . during the imminent feril of war hetwern the L. and France. I)r. Loman, who was at striet momber of the Sor


 Sct. Jan, 30. 17!!!, making it a high mishemeanm for a pri-

 on tho statate bowks. (Revised statates of the V. A., sete
 1801-15: went to Fingland in $1 \& 10$ in the hope of rontritut ing to preserve peano with that comatry: was a memine uf










 aml uther work in latin and in benglioh prose athi yerse:
























































「＂］










































 Suplown Srizama（

（i，ぶ．（illibr．kT．














 ambl lumbor，facilitatal by 10 main athl lomad railwas．










 with the trisame sylable（ - ）instend of at troched．

1．Witlent Imaic．
1．Ahmir．－Nimaral imingo．


$$
-\smile \cup|-\smile|\llcorner|-\wedge .|
$$



$$
\sim \smile|\sim-1-\cup|-v 1
$$

11．Willa lamis．
4．Jthererulton．－V゙is formasa viluri．

$$
->|-\smile \cup|\llcorner|-\wedge|
$$



$$
->|-\infty|-v|-\wedge|
$$


（ Sin in Jlamaer．）$-\cdots|-\sim|-v|-v|-|-\wedge|$



$$
-v|-己|-v|-v|\llcorner|-\wedge|
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$$
-\smile|->|\sim \smile|-v|-\wedge \mid
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Iamblat ruma sia，max reficit rates．

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-\cdot|-\cdots|\llcorner\| \sim v|-v|-\wedge \mid
$$


 －． $\mid$－ $\mid\llcorner\| \sim \cup \mid\llcorner\|-\cdots|\rightarrow-|-\wedge|$
11．Girmber Simphis．

$$
-\smile|-|\backsim-|L \| \sim v|-v|\llcorner|-\wedge|
$$


1：i．Linfutulem（ain in Latin）：havis at the begimming Hf atch culans：


VI. Some matricians, andiont and mondern, includt among logatalic verses thome that contain a datylice tod lowed by a trochaic colon, as
14. Greater Armilorhian.

$-\infty|-ぇ|-\overrightarrow{\text { - }}\left|-w_{\bullet} \|-v\right|-v \mid\llcorner\mid-\wedge \|$
 logaterde ferses in the same perionl, as the thith line wit the Aleaic stanza:
15. Wesematat in ampman protitor.
$>:-\cup|->|-v|-\infty|$
There is no dufinite limit to the variety of loramelie roba and their enmbinations in lyric fuetry. "f"he following satuphe is from l'indar

: - | - - | ᄂ \| - $|-\smile \smile| ட\|-\smile|-|-,\smile\|$
In mondern languages the spotamatio use nf lograndic rhethm is abmost restrictedoto imitations of "lasite protry, such as Temysun's I Phulaceuns:

The name logratio is thourht hy some to be due to the prose-like irmequarity: utheris belinve it signifies "speredo sumg" (words set to musio). Possibly it was tirst applied to verses with bases, which, like the lines in our chants, may have started without hofinte motasure amel ended netrically.

 mumber (whunce Enar. arithmetio)]: The lowathm of a mumber is the exponent of the frwer to which it is neressary to raise a fixed momber to produce the given momber. The fixel momber is called the buse. Thas in the equation $10^{2}=1,000,3$ is tha logarithm of 1,000, tha ham buing 10 . Any pusitive number except 1 may be taken ata buse and for each baso there jo a conrespmaline systom of lugurithos: there is therfore an intinite momber of systems of logarithmx, lut only two of thom are in genaral nse-the Tapierian and the rommon system. The Nipulerian systom, named atme its inventor. Barm Nindur. is the systen whose base is $2 \cdot 718281825 .$. ; the emmmon system is the system whase base is 10 . In what follows we shall desimmate Napierian logarithms by the symbal $l$, and common logarithas by the symbol loy.
lses.-Aapietim logarithms are montly employed in the higher branches of analysi: and in scientifie investigations. Common logarithms are used in practisal comphtations. where they serve to comvert the operations of multiplication ant disision into the simpler ones of ablition and subtrate tion. In trigonometric computations their use is almost indispensable. Computations by means of luratithns are made in accordance with the following primifles: 1 , the logarithon of the prowluct of any momber ut factora is equal to the sum of the logstithms of the lactors; 2, the lowst rithm of a quotient is equal to the logarithm of the dividend diminished by that of the divisur : B, the hararithm of any fower of a quantity is erpal to the logarithm of the quantity multiplied hy the expment of the power : and 4. the logirithm of any root uf a puantity in equal to the logarithmof the quantity divided hy the inder uf the rust. la applying these principlos the lowarthms neened are taken from tables callad tables of logritlims. "The woblhel of forming these tablas will bexplainat hereatitas.

Gentral Iroperties of Loymrithms.- In the pxpmon+htial equation $a^{x}=n$ we may reward a as the hase of any orstam of logarithms, in whith case $x$ will he the logarithith of $n$ taken in that system. The disurusion of this ermation indiuates the following wemaral prometies: 1 , the luastith of 1 in any system is equal to $0: 2$, the logerithinn of the base of any system, taken in hat system, is $1: i n$ in any system whose base is ereater than 1 the lowartham of all numbers ereater than 1 are positice the logerithas of all numbers less than 1 are mogative, the lurarithan of 0 is $-x$, and the logarithm of $x$ is $+x$; 有, in any witam whose base is less than I the losarithms of all nimitnors sumater than 1 are nemative, the lararithms of all mambers lan than 1 are pusitire, the lowarithm of 0 is $+x$, and the brumblan of $\infty$ is $-\infty$ : 5 , there are ne mal Josarithans of maretive
 in analytieal investigations.

Relations between Mifferent shatems.- liwny lowathan is composed of two facturs. The first fantor is comatant for
the sames symem, and dopente for its ralum on the have of that systam; the wownd factor is intwombent of the bave of the syotobla, but is depermant on the partioxtar mamber
 respombiner to any system is a mald the morlulues of that systen. The morlulas of the Xipherian syolvo in f, that of





 of a systome whose base is erreater than 1 is fusitisu. A mondulin may ham athy value from - x to + es it in to be mberved that the motulas dermase abodoratoblly as the base immates. If we multiply the Napheran logatithon of
 the lorarithmi of the same nomaler in that system. Thhis
 any system when wo have atable of Nablerian lagarithoms.
 times callod hyperbolice logarthms, on acobunt of thar rolation to the equilaterat hyrurbula; there is, howeror, no
 lation that exists betwen the horatithms of this system and
 of any system whaterer and some othor "quilateral hypro Lula. Tho explain the mature of this relation, let $L .1 K^{\circ}$ be one branch of an equilateral hypertula, whose "ynation, whon refermen to it a anmptotes, C
 the rentex and lat $I^{\prime}$ be ator pmint on the "urye ; ant let (ly and ('E lie the athocissals of $A$ and $F$, the latter beiner (allend the terminal alsorisis. The stare
 dasenthen on the arombinatios of - is emaal to $m$, a may the shown from the equation of the cursa. Now it mat be proved by means of the callulus 1 hat

 and C'E lyy $x$, we latre

$$
m: A:: 1: l x \ldots \ldots \quad \therefore 1=m l x ; \ldots(1)
$$

Hence the aroal hotween an whilateral hyprobla amb one of its asympates, etimated from the ombinate of the vertex up to any other ordinatu, is cuat to the lugarithm of the temomal alosonsa takon in a sistem whose mondulus is the square describman on corordinates of it vertex. If we take the conjurate of the hylurlola $/$ a $h$, whose equation is $x y=-m$. cuadion ( 1 ) will become

$$
\mathrm{l}=-m l . r \ldots(\Omega)
$$

The numerical value of $m$ in equations (1) and (2) dupends upon the salue of ( $B$; ly givinar suitable values to (' $b$. $m$ may hemande to hase any value from 0 a $0+\infty$; that is. $\pm$ mlx may le made to dejnewnt the luarithm of at in any system whatever. If we make $\left({ }^{\prime} B=1\right.$. we haw $m=1$, and
 Naparian syatern. 'The ralne of the ane -1 may lue exprosed hy an infinite sories in terms of or, and thin seriks may be mside as a bums ot computine a table of logurithms. Such a surbes was orimpally employed for this purluse but
 veninnt.

Thbles of Loguriftms-Tables of logarithmes are lables
 namber, or the nomber correspmatiner to any lomarithai, withim cortain limio. Bivery locrarithm consiots ut two


 tive, but the mantios is alwas - paitive. 'Ithe chatatur-
 it is not wiven in the ondinary tables: thu fownal luint in










 hasarithm- of utamary downala.











 mal flame (on lo. Vlack inclulad in hio work the lemat


 for every humbeth of a dearge from ot to !o, which hat
 whtion of Vhadis tablon, but the work is unt uf print and
 hle tahbsare thone of lirnlan- pmblinhed at Letipzig. in both Gorman and linglinh.

Intitugurithoms.- In antilurarithan is the mambere cenrexswombing to a giver lumathan. Thus 10 on the amther rithme of 2 in the comman stitem. Antilocrarithms, in the




Revisel hy ふ. Newormb.

 so momed from ita lares ho:d, hy which it can he readily
 bathe fort the sumbere eremitly the smaller indivimals, is oftern bromght to market. In the sumberal.. S. that man is often aphlied to the smaphing turtle (f helydre wepentima).

$$
\text { F. I. } 1 .
$$








 on which retlotion proverts. Comeption is the promes



















 **)













 "r "prosition of ghantits. 'lhe promerties of propositions lay the fommation for their inferential nat

Cheqsomisty is the fubtion by which the mind procecels from a provent anntent callat hata to nther content which
 ne eting fats with prineiples ur law through generalization,

 dedurfion. (If derlactive inforedere it is ehatomatry to dis-

 direet implientions of joulemants are drawn ant. So asser-
 whirla is affered thrombont he it a ation. Very judgment,
 implication. It is the hisises of immeliate inference to devalat these implications. Its principal methods are opposifion. which prowede on the relations of cont radiction, con-
 1,rms of the judemont rither simply, that is, without change of puantity and duality. or for arialens. that is, by a change of phantity from univeral (o) patiocular. Of the four fun-
 vartad per acridens. O rall be cemverted by being first
 oburaver, whid duvelogs the asaertion of the opposite guality that is implied in every julgment : contrapusition, which gives the conberse of thas q中"site: the addition or transproition of rualifying words or phrases amb other devices of which aredill mention need not be male. Immediate inferenor is a most fruitful source of conclusions both in its popalar ase and in the strideremployment of it in science and philasonts

Matiate inference is the proces by which conclusions are indicotly reabed thromgh a momarison of assertions. It embenlis's itself in several types, mamely, the calculatioe, which is fommatal on phare relations of flantity, and emlirames all mathematical amd quasi-mmthematical reasoning the sulswmpliee whirlo is fommed on relations of genera
 inm: they neratizimg. Which is fomalod on relations of facts. amd romatitutes the perial instmanent of induction. The subsumptive type is the surejal instrument of the traditional loger. Subsmative reasming procede by so relating the "Cntents of two torms to that of a hard or common term is two jrupusitions, of which ome rombelates a gemeral jerin-
 rla-ion as to their relab fon to weh whor powible
'J'be tirnt jumgment or proposition ammetating the genoral principlo is callod. tathically, the major premise; the whor is ralled the minur fromise, amd the two together
 tuta what is called a syllegism. Uf thate three parts all sylherions romsist : lat lor the most part we have in prate tir. rillar (1) an omisson of ont of the promises.as $A$ is 13, theroforn is ( 1 , in whith rase we call the abridged form :n folhymome, or (2) seroral promises following earb






 tated as sum in due order. 'Thas. in the example just

 premin of the seritus heormos the major premise of the


 thewnite is usen fur major premine, and the ronctusinn of





 in. howner. a phat of the sllogrinh or argument as traly mal an really an thounh it wore expersed, sime without it
 womld contain any term that was mot rontaned in the prop-
osition used as a promise itself. Il nee the means by which we can find the suppresed or omitted premise is one of the most impertant parts of logic in a practical point of view.

There are three species of sylh,yisms determined by the specilie rolations on wheh they are fondme. The entegorical syllogism rests on the pelation of indiviluals or specirs to their gemus. 'The major premise in the mater ical syllogism is some propusition ahont moms. Since the individual and spectes athe contamed in the semos, any proposition abont genus will he ungualitedly andicahbe to them also. For cxample, if genus homo is fallihle, the? Soerates and the Athenians will be fallible ahn: besides the eategoricals there are two specins of hymfletion sutho gisms-the compunctive and dighmetare they are styled by Fowler. The pecoliar character of the corijuntions.s. logism arises from the faet that it rests on a categrical proposition about genus, which is not emuciated. Thas in the eonjunctive statement, if it rains the gromme will be wet, is implied the eaterorical, rain wets the gromm, and in the eonjunctive, if suerates is an thenims he is a freak. is implied the eategorical, the thenims are corecks. The grond-principle of the conjunctive sylagism is therefore an menunciated categorical proposition, on the strenyth of which we assume a relation of conditional depentene of subject or prediente, and ay if rain, then wet gromm; if Athenian, then Greck. The disjenctio syllogism also rests on a eategorical presupposition, namely, that of a gems or whole within which the disjunction takes place. Thus if we assert disjunctively that a triample is either josectes, right angled, or scalene, we do so on the presuppustion of a containing figure of which these are the only alternative species. They are the pussibilities among which the actuality is to be found.

The rules of the hypothetionls may be iriefly stated. In a conjunetive sylorism if we athirm the antoment we prove the consequent, and cice cerse if we deny the comsequent we disprove the antechent. Thus

$$
\text { If } A \text { is } 13 .(0 \text { is } 1) \text {. }
$$

## $A$ is $B . \quad \quad C$ is not 11, <br> Therefore (' is D . Therefore A is not 13 .

Any other mode of eompleting the syllogism would be fallacions. This will be olwious from a simple example: "lf John has a $f$ aver he is siek. John has a fever. therefore he is sick"; "John is not sick, therefore he hats not a ferer." This is right: but if we say, "John has not a fover, therefore he is mot sick," or if we way. "Ihe is sick, therefore he has a fever," it would be manifestly wrong.

In a disjunetive sylorism it is always safe to deny one of the partsor propositions as a means of prowing the other. as "A is either $B$ or $C$ " A is not $B$, therefore $A$ is $($ " ; or $A$ is not C, therefore A is 13." Polypes are either plants or animals: they are not plants, therefore they are animals: but the other methon of completion, offering one promasition to disprove the other, is not always valin. 'lhus "Conleridge is either a puet or a philosopher ; he is a phinsopher. therefore he is not a poet." In this case poets and philosophers are not what are called co-ordinate parts or species, for a man may be both a poct and a philosopher at the same time. The ditemma is a complex lyypothetieal combining both conjunctive and disjundive elements.

The most important and fumbamental speries of syllogism is the cotegorical. and it is in its elaboration that most of the machinery of hagie has been developen. The catecorieal syllogisin is formally a combination of three promositions, two of which are called premisps, the third comelusion. For cample, we argue, the calates of rime should he sul pressed: ignorance is a cause of crime: therefore ignorance should be suppressed. Here the major emmeintes at general principle, the minor makes a pecitication umbr it, and the conclusion applies the princigle to the ease suecifien in the minor. In the eategorical sylowism three terms are employed, namely, a major and minor botween which the reasoning is seeking a eomection, ann a miknle term which stands so related to the major and minor as 10 show that one is wholly or in part included in ore excluded from the other. Thus arise the different variotips of athimative anm] negative conclusions. Now, it is manifest that with if fur major premise wa may lave either 1, R, 1 , ur of for minor,
 and with each pair we can have either A, b, h, or for a
 other in what is called the nood of the syllogism. In like
mamur we maty have sixtun with rither li, 1 , or 11 for major premine, makine in all sixty-fime mennds. Thas, for



 fallacions, athally prowing maher.



 term, and is fomblonly in the major fremion. Al stands for
 ises, that not in the condurion. It may. however, wernpy either of four positions in the promises ats (1) suldinet of the major pemise and proticate of the minor: (2) prontionte in both; (3) subjerd in hath; or (4) the inwere of the fira, pred jeate of the major premise and subject of the minur. These variet in's of pusition comstitute what is called the ligure of the syllogism. As eanh of these prsitions of the midale term may be found in either of the sixty-fomer mombs, wa may have 206 differnt eaterorical syllomisms.

IIost of these 256 syllogisms arte invalid-not only worthless, but actually delusive. Honce the dispobery if some rules and practical tests of validity is of the utmot importance. Fallaries may he of two kink-either (1) in form or (Q) in dictiom. A fallaty is sad to be in form when it is obvious on the mere insuectom of the form of the symbgism, withont considring or knowine the meaning of the propositions, or of its terms ewn ; as " In is mot $3, S$ is 3 therefore $s$ is $P^{\prime \prime}$ : but when there is no fallacy in form there may low one in dictim, which renders the remoniner worthless. This can be discowred and exposel only by ${ }^{6}$ emsideration of the meaning of the several popmsitions eonsidered sparately. Thus "light compes from the sur, feathers are light; therefure feathers come from the sun." In this ease the form is fandess, but the dietion is fallacions. The word " light " is ambiguons, and mans one thing in one promise amb something alse in the wher.
beviles these two classes of what are called logieal fallaeies there are one or two others, malleal extra-hgieal fallat dies, of which we shall say a word in condusion. First we shall suak of fallacies in form:
(1) There may be no more than three real terms. There may be any number of worls, for nouns will ofth have several adjectives and mondifing clanes, hut for the purposes of logie a nom with all its anjection maty be considered as one word. As an example of the "fallat of many turms," as it is callen, we have the followiner: "My hand tonches the fuen. the pen tonchos the paper: therefore my hand tonches the papler." Here, as we see on ar cariofulanalysin. we have fom terms, four different things really puken of (1) my hand, (2) that which "touches the pen," (i) "the pen," and (4) that which "fouches the parer ": and the syburism implies. though it does not state. that whaterer tonehes the pen is the pent, which is of cmarse alsurd. It will sometimes hapmen, howere that what is the implied is mot only mot abourd, bat is in fact quito true. In that case the apment fallacy is only an abridged form of the sorites, of whith we shall siy more below.
(2) If both permises are negative, there can be no conchsion. Thas "s is not M, M is not 1י" After thes premisos we can have no conchasion. "Horses are mot men, men are mot birds." It is true that horses are not hidds. but if we say "Ilorses are not mon, and man are mot quatroured." we can have no conchasin, althngh we know otherwise that larses are quadrupals. It will sumet imes happen, however, that there is an anmaner of two negative pmomises when one or hoth of then is really athmative. Thas " Kin One who has not enough can lie called rich, tha momiser has enough; therefore womiser ean le wallod rich." H1 we two of the nequtives virtually morem bach other, makine for the midde term "persom mot havigemorta." and the interence is as valid as themath the midelte tomm worn forition "per-
 to "S is mot ll"). "Whatewer is not M is 1" " (muivalent

(3) It is fomal to lu nerosary that the midur torm -homat
 proposition or the predicate of an mation Mus. "lhe failure to fulfill this condition censtitutio what in allal m umedis. tributed midhle. Thus "llorses are mimals, fuses atre ani mals: therefore howes are foxs": hat horsmemb foxes



























 an atlimative fromonitum in the major promion.


 mat be wiven that are of areat prational yabe thonarh rat










 involves a violation of the fumbamonal comblitime of valality.







































 "anallo alreaty tited. "Livht "ome from the sum, fenthers
 - hatl take the woral lisht to mean ditternent flingen in ench




 y




 mans" is und an a mollective term. If, now, we should say
 Cathat"。" omr fallater whald he whe of division: bat if the


 tal in ont fumareand yot used mantomake it essential in the whar of in tha conclusion: or it mat be atlirmed with re-
 then ablamed in rafremer to its subtance in the conelusion, and riote erses. This constitutes what is ralled the fallacy of -ubotame and aceribents. 'Thus the example usually winen is." We nat what we lom in the markel; we bur raw mont in the market : therefore we cat raw meat," or cat our meal raw. WV. hay bur meat mot hemense it is raw, but rather betatice it is meat ; the "rawness" is merely aceidontal to the at of purelasing and to the premise bat in the enorbasinn it is so placed as lo make it essential to its medmang. "lohis is called the fallacy of aceidents: but if we Gombly uf a cortain man, in refurence to his pecmiary
 of a maju firemise that he is a gome "man." we shotid have the fallaty in the other fom, ablying what is sabl in refer-
 sulsmane itself. This is called the fallitey a dictosecondum quid abl dictum simpliciter. Of all the fallacies in dietion, those holmuing to this chase are the most subte and diflicolt uf detertion and expusure.

Extra-logical fillacies are of two kinds-fallacies in mattur and fallawies in mothonl.

In rasiad whe matter, there are several forms of fallacy that are tolne notud. The firs is what is cadled mon tera

 are inpliad, and wan formad moly in the ways of com-
 that arr appronty stated ats promines. Of fourse, when a Promise that is fitse is used as a real premine the argmont latio to prove anything, and will he su ramaded by all persums that know its falsity. 'Then, agam, wathe what is

 fremine irrelevant to the conchasion. A promsition occur-

 in a serico that makes a sorites bersing one of its terms in enmamen with the froceding jormasion and the other onmmon to it and the sumording proposition. 'lous if we
 follow in losiond ortor, and are logrically commectetl, but if
 momere sum a proprsition with the other fremises ant atthourh trav if wonld the mo jremise to $A$ is $J$ ).

The fallarios in mophot may ator the of several kinds. Friat, wa have what is eallen! a herering of the question or













three [ropositions, 1, 2, and 3. and we man and ? as jrem-
 prove 1, we are in sumba canc remominer in at cirele; that is we first dedure a conchaion from promises, and thon nat that conclusion as a jurmise to prose one or the other of it premises-that is, its own premines.

The other recomized form of fallany in method is called mistakins the issue, or igmometionerohi. Onw insommakes the real proposition that is to le proved, aml then, seelimer proof for his supmosed enachasion, dues mot find the dmonf that is required for the real comelnsion whioh shomlat be established : and he is said to be innorant of the pamf on to have mistaken the prof, becanse he hat first mishaken the proposition to be provel. I rase is cited trom (ireek history: The thenime were delibreatine whether to put the Mitylenians to death. Wne oratar hal tried to show that it was just to do so. Another replied that that was not the proposition to he prosed ; it linl not :hswer that fluention, for the question really was whether it was eapertient to do so : nobodr doubted the justiee of the meanure.

At the basis of logic are eertain prineijut called laws of thought. These are identity amd difference, and mallirient reason: the former governs hy the deductive frecensen: the latter those of intuction. ']hese prineiphes have hoth pry chologieal and metaphysical rusts, the development of which rests beyond the senno of this artiele

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Revised by Alexanner T. OrMond.
Logistics ffrom Gr. doyatacós. Nilled in calculation, ir.
 that branch of the art and solunce of war which deals with transporting and supplying armies. It includes arranering and timing marehes, prejaring and tranomitiner ortars. direeting ralway and water transurtation, selecting and regulating eampsand cantumments, as well as the manufacture, purchase, transportation, and distribution of arms, mumitions, and supples of all kimls. It is intimately monnected with stratery in the hocation of bases and delnits with reference to eollectiner sumblips: and in secrecy, in preparation of means of transport and dostination of stores pron vided, ete., and with tuctics in that the operatims for conlleeting information, forksing, arymumer and timing marobes. Jocating eamps, etc. shombla be made that the luat protort ive measures may be taken by the trons in accurdance with tactical princiule and with the least labor and fatirum War.
dames Merctra.
 a name applied to the shter Greek chondelers who moth the transition from the puotical narmative of the "pas to trut historical compoxition. Innia was the homo of the earlient Greek prose, and most ot the logngaphare wore - Niatio Greeks. Their styh was simplo and inartilicial, thomer
 tion of the material. and the only eriticism was the aritionem
 period of the logegraphers barine towned themat of the sisth century b. c., amdstragering rempentatime of the clazs are found down to the time of the Peloponmesian war. siec








 cance in Philo, it. Jnhm, and the ratly (ireck fothero, and is important in the cloctrime al' ('harist.
(1) Philn, a dewinh jhilamphor of Ah"xamori:a, whas and



 Nous. The Lasos is to hims the cmbndiment of all divins




 the thonsht. The former comtains ther jobal womld the


 Messiah (thomerh mbly in an itleal mone-as a therophany bot as a concrote histarical persom). Jhiln Winbrs lutwern a personal and impurmmal concegtion of the Logos. Bnt leans
 incomation of the dasos and his real minn with lomanity. Seborthelaso his virw has a strikiner remembance to the
 codesthe substane . It was a juromotie dram of the sam-
 tion of the truth, but misal nthers into (imentie errors.

Lateritcren-Gfriger, I'helo umel die Altamulrimische Theosozhie (1siol): lithur, Jälisch-1horondrimische her






 deximation uf the divine perextiotent jersom of (hrist. through whom the world was manle, amd who beeane forar-



 mo evidence that . Tohn had pord a single line of l'hilon, fut the ifore was derivel from the teachine wt christ, and from tha* Oha 'Jestamont, which maties a diatimetion lat wern the


 is an inherent proprety in this natig in the Greck langatae. where lugus is matadine and hav the fluthe meaninur of

 word gives shatre and form to the ibla, and it reverals the



 is the Revead'r and Intorymere of the hithen heing of (ionl, the utterance, tho rethertion, the viable inago of (iont, and the orean of all his manitutatione to the world (Inhan i. in:



 and wromght ont in it tha kalyation of the rata whim wis






 Kïhricht, Zow elohemetishen Lengombler', in the Theol.




The l.
 lhationd the l'rotugu of inhn:- baped and wa an im-







 eral spmer. "hat part of the pronince whith otremen ature the sumbern hata of the Ehen is an undating plain.



 from that of the lhare and which in liae Santa low rise
 phendy whemberd, and the manufacturing industry is in-


Larnood [named from lodige imported in loge: aho callen ('anprachy Word]: tha red hart-woul of a tern-
 feet in height. This tree in a mation of hexien and coutral
 Lasway in the mont impatant dyewnd known and is exforend in great quantitiog. It makes many hatos from


 a mild astringent, from tha promene of tamia atid. For
 chipe, pawder, ur whit extract.


 ribuc, sulphatero and phophates of pola-imm, sulime mar-






 nation with metallie oshas, in all father dyed with lopwond or it propatione. It i- maily preparel by expming to the air an ammonamat sutin of hamatoxy in and ary-
 lakes with motally. hames: hle or vinde with alumina. coprper, ame tin: black whatron and chromiam.
 of the womb we wh the rxtrant. It is wed for rablish, violor. Whe amd bart shanco but whemy for blak. Lag-

 war prohimed under usore phathins. The Gac of indige was forbiklum at the same time, as it intorferent with the we of the mation wowl. I ratury hater the reatrictione on





 (











 with enpric sulphate (hane atriol), is abatituted. 'The re-
sulting back, which is a compunm of hatmatoin with the
 alkahes bether than the irun emmpumat. ('utten is tirst thated on the hagwal derthtions, with or withut quereitron, thera pated in the station of hichromate and the vitriol. Afor aftinge sume sula-i-h th the original logworl decoe-
 whal to this bath, and the entur is anee more shmitted

 mitted the the action of the lonsworl. C. F. Cusuber.
Loharda'za ar Leharda'mea: a dien rict of the lienten-

 The eental and soulhern puetion of the distriet is an eleratal table-band with medulatine arfore and the slopes betwera the ridgen are odt into torran cowed with rice. 'llaw worthern and womern portion is a tangled mass of insulated peahs, presenting mownore a level area of any extent. The primedill river are the North and Sonth Kicel. The native Chri-1 inns are more momorns in Loharhaga than in any other bengalan distrid. At the las census 60 pro mht, were llimhlus and 1 per cent, Christians. The two missinns are the Grman Lutherm and the Clurch of Englam, whith harmonionsly and sutecosfully work side hy shl. The prine pal town is Ramehi. on the K Nel, with (1891) 20. 6 O inhahitants.

Levined hy M. IV. Harmigton.
Luhe, löe of Luehe, Jons Cospab Whamam: Lutheran Cherman and anthor: b. near Nurember (iarmany, Feb.
 Erlagen, he beram pastor of the latheram churchat Neuendettelsan in 1835, where he foumed an institution for the training of missinarice, with esperal reference to the supply of (ierman fantors for the 1 '. S. la 1803 he founded a datomes institute. followed hy anylums and hospitals of varions kinds. He was the anther if Drei Bucher ron der Girehe (154.), and of several volumes of sermons, but was epectialls distmenishat as a litarerien writer. See his Ityonde far chrostiche fiemeinten des luth. Be lienutnisses (3id enl., revised thy J. Deinzer, 1884). II. E. Jacobs.
 Nimptish, silesia, lan. 25, 1635: stmediod law at ledezig and 'Tubingen; was appuinted syndio of the city of Breslan, and imprial eommer: d. Apris. 16 m . L Lhenstem is a represemative of the utmost denay of Geman pertry in the seventwinth century, a member of the second silesian school. Ha wrote many juxins, a mumber of tragedies, and a novel, the contunts of all of which are shanelossly immoral and rame, whib their languge ben funt fue surpasied in bombast.
 ('aspuer atom hobernateins (inso). drluts Gorbel.
Loher, lifer. Fravz, wn: historian amb jurist; b. at l'adertorn, Wiathalia, O.t. 15,1818 : stadied law, history. natual wenter, and art at halle, Munich, Froiburg, ath Berlin: made densive travels in Furone Camala, and the
 monte in Cirmany in 1str: fommoll the Westphatische Zaitury: was imprisnay by the l'rus-ian Government for phiticat aritation. hat shorty after aqquitted by the court : berame anvessir at the conit of appal in Padertoon in 184! profocop at the laiversity of (fottingen in 1853, and








 , 小! •
 river of Framen ; rim in the hills of Eurenthar, Hows - W., and jone the sarthe and atherot of the Loir, 5 miles

 thamal, ant wry wimline lo gives it ham to two depatments. Fiarmithair and Loirat-1 har.
11. W. 11.

Late ffr. - lat. Liger, the anoment mamel: the Jargest and hatest river of frame 11 riace in the crepmose and Hns-in a berthwestem and wextorn diretion through the

right the Sarthe, and from the left the Allier, 1 her Imalre. and Viemse rivers. It is 600 miles in length, aml is mavigable 450 mile's from its mouth. It is momadml ly canals with the seime the saone, and the harbor of hrest. The foire is lined with high embankmonts, amd hava lat mal canal completed in 1838 along its lower course, ato it is lialde to rise considerably, otcasionime destrutive inumbations. In the volume of its water there is almost the irrarularity of a mountain-torrent. buring the dromghts of summer it shrinks into thin and feeble threals winding their way thetween the sambanks of the chamel, and for about ois months of the year mavigation is practically impanilde. At other times. and often very suldenly. tremembus thow pour sown and submurge large tracts of lam. Attempts ta control the river were mate at a very carly date. It the elose of the Nidhle Ages the hed hetwen Orlams and Angers was inclosen by dikes. from 10 to 23 feet high, and in 1783 a double line of dikes, 号 feet high. was completed from Bec d'Allier downward. somach sediment hav been deposited by the loire that the depath of water at its monath at low tide is only 6 fect. The basin of the hoine comprises one-fourth of the area of the republic. and is so fertile that it is called "the sardm of Frane." ln several wars carred on within the bembdaries of France the river forment an importent straterical element-c. is. in the wars with the English in the fifteenth century, in the wars of 1814, and in the war of 1850-i1 arainst the Germans. In the last instance the Loire formed the houndary betwern the territory occupied by the Germans and those parts of France which remaned unhamed by the invaders. The river is so broad that its passages beemine very important military positions. The towns of Nantes, Tours, Blow, Orleans, aml Nevers are on its banks.

Loire: adepartment of Framee eomprising the old prowince of Fore\% and portions of hanjolais and Lyomats, including part of the basin of the upper Loire and spurs of the Cévennes and Forez Monntains. Area, $1,438 \mathrm{sq}$. miles. Iron is mined, marble, granite, ןwrpary, and ilint are pharried, and there are extensive manufatures of siks, fotton. iron, steel, and flint mlass. hat the vicinity of st.- Sticume are rich coal-bets, which yith some $3.000,000$ tons anmally. lop. (1891) 616,297. Capital, Monthrison.
 France: on loth siles of the mouth of the lomere. Area, 2.654 sy . miles. The surface is luw containing extensive lagoons, but the suil is gemerally fertile. Wine and wheat are produced. Fine horses, good shecp, and many bees are reared. Salt. preserved meats. pidkles, and sugar inte exported. Capital. Nantes. St--Nazaire is an important seat port. Pop. (18:1) 645.2t53.

Loiret, lway rai : a department of France: situated between the seme and the lonire: consistine of a low, samly. ant umproluctive tract on both siles of the loures and a more elevated and fertile phan callut the phatean of Orlems, Area, 2.614 sif. miles. The principal probucts are gratin, wine, hemp, saffron, timber, and aples. Far mote wheat and oats are rased than necessary for home consumption. Sheep and cattle, both of roond breeds, poultry and bees, are reared. Pop. (1801) 3Ta.als. Capital, Ondens.
Loir-et-Cher, lwarta-shar': a department of France; situated on both wides of the Lointe, and tramsed hr soreral
 sq. miles. The surface is low and level, Int the soil is sinerally fertile. Wheat, hemp, and vines are patencively maltivated ; sheep, horses the Perefuron hred is ceplehnated both for strength and lightuess), Juntry and hum amp reared, and some wondens, motmos, lathix. and ghaw are


 map of south Ameria, ref. 1-1\% . It is farmally -ithale. 1 for commeres the Curdilleras at this print hoiner lowe than elsewhere, and offering a eomparatively vasy commonimanin from the cuast to the Amazon vallay, while the lompian frontier is but a short distance away". ('inchuma lark was first ohtained in quantity from tho foreats E. of Lajia aml for a long time the town had andive trate in this artiols: hat little is now obtainel, and commmination with the Amazon bas almost ceaset. inja was fombel in 1.5 Hi, mul was long the center of an impurtant gold-mining revion. It is somewhat mhealthful, ami has suffered sesprely from earthquakes, Pop, (1893) abont ! 9000. It is the chpital of a



## Loki : See Devit.

 cerning whose rat "pow and life the tratitions are con-
 Lexath by Erpenins in 16in, with a Latin tranlatinn, and they have since been mo of the commonat text-hwes for learning the Arabie languag-a diatimetion they by mo means merit on the seree either of mequme or of mivinality.
 Crreck mirinal. Aminer maturn mitions thas if Cancian
 bonrer (berlin, 18o0) may be mentionent.

 ate cephalopoms of the sub-order simophor, with the eres covern les skin: the internal shm horny and lameolate: the bondy oblomg and with a mope or las jwintal termimal fin; the heat is free frm the from of the manthe: and the teeth of the romba are in seven regular longitulinal rows. the now han and imer latoral tepth beine brom and frimed, and the outer long amd fang-like. To it belong the mont common "sumids" of the "asterne emat of the [".s. Ther gigantie cuttertishes of the North Ahantie (Architeuthis) are neary allien, hat diller greatly in the lath of the radula.

Fevised hy 11. A. Jordas.
 muring st rain + -hert, an allix, sirnifyine me whonsthe
 conncted with Eagr, fulluly|: aterm of repomeh ambind at first to a half-mmastie serot whin orimated is 1300 at Antwerp. The sect was dmisurd to furni-h ministrants for the care of the sick. In lifit am 107: its menhers ware placed minder the protection of dirgery XI. In $14 \%$ Pope Sistus IV. mengnizel them as a religinusimer. Their proper desimation was Cellites or . Defiuns. A fow. Dexian hmes still exist in Eurene The name was afterward apmind engecially to the Englith amd sonttish foblewers of W Ycliffe, who were somely prsechted duming the reme of henry 1 V . and lanry 8. in England, and in the same amd somewhat later times in suthimi, where they were callen "Lablaris of Kyle." The chief center of Wridtes tending was the University al Oxforf, and after tho comemmation of his doctrine of the samments, in 1:32. Arehthishn) (ourtenay proceded to ailonce the Wydillite teachers in the numersity. There was a strmor party in the university which tried to resist the archhishomis interferpme, hat he was supforted by the erown, and in the space of fisa manth he succeded in redneing to silenw the Lullard pary in oxford and in memerine the mothosy of the minority. Wyatfe used to med ont itinerant prearher- who mat with cim-in-
 contost thratomed to becone luth more viohnt and more



 the peatints ri-ing under Wit 'Tyler, in 1ask. From its
 pert, which it never lont and which wakenel ba relimions
 only to the doctrinal sytum of the Chureln of linne, but alsi to hor wranizations aneh as was that fanmed and par-



 $\therefore$ ir. Girmb, lomlon, 1×1): Mathw. Finglish Horks of Juhn Hymlif.






























 ratuly in 150 .









 ha enhereml thatathedral, whish he whiched with several
 uf st. Nifholam. amb hexiencol the manament of the semator -


 tha linn of st. Mark of V"enice on the one, St. Apollinaris









 Natk"








 inי atwal lisll.
W. J. AIILAMAN.


























 ther" shall. She mowned lamelf by inducing two shbliers


 in wheh the lambarde monde thire efive dukes ravaged the



 dated the kingenom. After hiv death (oton) his widow, Theor felimblamatien Agilult, who berame a ('utholie and in the combe of hiv reign was followed into the erthodox Charel
 Wan depumal by the hukes, we berss who elected Ariovahl of
 bment arivarraty. whith theratered the stablity of the em-
 conapilation of the reat rade of lombard laws in 643, em londyine the traditional uades of the mation. Jrom the rifin of lathari the rosal suceswion presents the usual sermes of murder, debamehory, intrigue, and dethromements common to all governmants of the time under woik mon-
 unitol the kingidom by sulnhing the refractory aristocracy and would have matial laty but for the intrignes of the Chardh of landes, whith thent as at all sulseguent perions.
 of the Eastern amperor in Jaly. anding a large part of the warchate to the lambard tirrituries. Ratchis. who suecocted laitprand ( $7+1$ ), was so far influenced by the perm as 1 b fremme a momk. Xistulf. lis brother, win becane king in Fi!!, cmbeavored to tarry ont the ohd dombard idede hat was rhocked ly lephin, whe wive forced him to sue for

 sor, had for cerergant hatehis, whow taken from the eloisfor. lintting ride of hatelis. Desiderins ruled ateme. Ilis
 was wh the throm he divored hiv wite and sent her back to har father, bior reworas. Desitherias supperted the chains of the heis of ('arloman, ('harlemarme's brother, and marchet upan Rome, which had suphurted the outrage rommitted hy (harlemange. learing his thene in charge of his son

 male prisumpe emded his rats as a monk in the ahther of
 by that of the Frantis, that in the somb the ducley of Bene-
 The Sombate mate atter a haration of wer goo years. 'IThe lambarel laws and arohituotare, art and falture, were of a high wedre and wo rate of the Tratheition or lomanespur



The name Lomedards also was given during the Midalle

 Paris darine the wafth ectatury. They were principally








 thane conlatries.










 of subuct, amblacheler of literature. It maintains at pre-
paratory depurtment for stulents premaring for college or for business．The Rydar bivinity sichand eonmeded witlathe university，gives the degree of hachetor of divinity to sth－ dents who complete the prescribed comase of stmity．The

 dents in all departments．
．l．V．N．Standish．
Lom＇laraly：a territory of Northera Jtaly；extembing from the Alpes to the Po，and from Laro Marame and the Ticino，which separate it from liedmont，to Lago di darda and the Mincin，whith separate it from Vanetia．It con－ sists of an alpine region to the $N$ ．covered with pieturespue mountain ranges aml contaimime betutiful valleysond a large and excembingly lertile phan to the s．．extumbing abong the lo，and watered by the Theino，Lamtmo，Aldat， Oplio，amd Mincio．＇This phain，with its rich soil am？mild climate，is mot only une of the most fertile．but also on of the best－cultivated and must prosperoms farts of the kines－ dom of ltaly．Large erops of wheat，maize，rioo，and mill－ let are raisen．Melons．oranges，figs，citroms，jeaches．olitus， and mulberry－trees are extensively eultivated；almontines， though the wine producal is of inferior guality．The prin－ cipal industry is dairy－farming，which annably broduces about $50,000,000 \mathrm{lb}$ ．of exetlent cherese．The princibal manufacture is silk，which is produed in larme puanti－ ties and of excellent quality：the ammal value of this sin－ gle product is estimated at $\$ 15,(000,000$ ．The hilly recion is rich in beantiful marbles．The territors，comprisine an aroa of 9,075 sq．miles，with a population of $3,955,261$（15．00）．dues not form a political unit at present，but is divided into the provinces of Bergamo，Brescis，Como．Cremona，Milam， Pavia，and sondrio．It recejved its name from the Lum－ Bards（ $q$ ． 2 ．），who in s6s conqutred Northern and Central ltaly and establishod an indequalent kingom，which four－ isheid till $\because 54$ ，at which time it was incorporated with the
 bardy，together with a lone but narrow strip of vountry situated between France and Germany，and inhabited hy Frankish tribes，was formed into a kingrdom under a rular of the Carlovingian house，and it remanmel a Framkish pus－ session till the death ol Charlus the Fint，in sxs．Diter this time several indermont durhies arme in the eastern portion of the old Lombardian dominions，amd in $!61$ the western and central parts，lombardy promer，fell mader the feural anthority of the German empire．In the beemminer of the eleventh century it sumeremel in separating itarli from Germany．and a momber of small remblics．wenerally consisting of one city only．with a depembent territury，wore formed．This period of its history，whicll lasted tor tho middle of the sisteenth century，is the most interesting and prosperous．Twice unjted into jowprful learbes，thas Lombard cities defeated Freduric Barbatossa in 1176 amd Frederick II．in 1205：and after the dissolution of the bearue Milas（ $q . v^{\prime}$ ）still remained a power which commanded some respect under the sway of the ！scontis ant SFonzas（qq．r＊）． The duchy of Milan was the disputed priza in the loner wars between Charles V．and Franois I．（15？1－44），hut suain maintained her clam and held the comatry till 1706．whon it fell to Austria．During the wars betweda France amd Austria at the end of the rightemth amb the bermmine uf
 the Cisalpune republic，the lablian ripublic．mad the kinglam of ltaly，hat in 1815 it was restorel to Anstria，which combla it to the king of sardinia in $1 \times 5$ by the treaty of Villaftatacia．

Lombok＇：one of the gronjo of the sumba islands：in the Malay Archipelago；sitmated botwern bali and sumbaw， and belonging to the Notherlames．Its ane is 2.100 sm ． miles；its popalation is estimaterd at ：800． 0100 ．mostly indire－ nous．Mohammerlans．Its ecosto are mountainous．contain－ ing several active volenomes：the intarior in a low and furthe plain．Rice and cotton are uxtemsively cultisated．＇lhe capital is Mataram；the seaport Ampanam，murh fropuconted to obtain provisions．lombok marks the eantern limit of the Australian fauna，as batlimarks the weotern limit of the


Lom＇briz［eorruption of Span．lumbriciointectiral worns］：
 inchuding the Territorites，menniner a diaman of sherel almb goats caused by the presence of a small wom（strmuylus contorfas）．This parasite is of a redilish（a）（or，about at leath
 of the fourth somath．When phenent in large manluss the
 egirs of the worm finn fremi the hasi whth the faterof fall




 of turpentine with twent timen the volamw of milk．

LabNAKD I＇EARSON．




 of dertor of malicine from the l＇niversity of larin：thterm
 made army－surtwon：towk pofoswimhit，in biseases of tho
 dirmetor of an establishment fur the inwate at l＇esaro．from Which plate he went to the Cuibersity of＇Tarin an＇rofesom of Medical Law and of Poychiatry．He has written a very

 he has given at great impetas．Dis works are inarked heg orjerinality and sugerntiveness rather thath bo rritiond dis－ cemment or well－weiqhed（wnedn－juns．tlis thenty of erim－ imality is fatalistic，amb regards the criminal as ehitely tha result of atariom，or the remalt of herentity able elimatio environment．Ammur his many works some of the mom impurtant are The＇riminel．on inthropolugiralund Medico－


 atrico－legal Ineestigutions．by Érpuerimental Mhtheds（1～6is． etc．


 at Avignon：then went tur Pais，where，ufter writine for the Rívere dos Donar Mombis and Lat I＇atriv．Jue began in 1846 the pulalication of the fialorip alos（imtemparains il－ luatres．par un Komme de Kín（10 vonk．．finished in 1～1う． which aftracted mund attention．Ilve wat apminted l＇ro－ fessor in Fremele literature at the（＇allege de Franme ins 1845，and at the Eenle ］olyternnigue in latit．Shoothor
 In lsas he polhinhed Beanmarchuis at sme Timps（evol．




 in 18：D．at Menton．dr．日．以か
levised by 1．la．Mar－h．




 ever．with hat little tahont．Dlis tirst literary work，／Pisur
 was printed at l＇rague in fisul．＇lohers followed his bust






 an ammity upon him．（Burarmod by feremisary consulars－





 foverty ahont ltise．s．I．lixis





 ful sernery．














 great ropataing but hi* riblent temper insubel him m



 value. I1.0 was atwe the anther if the bergminge of a hio-


 and hroratures. 11 w who a kurat grammar, and it wis Fre that time hrew the lime of the mandern racabulaty. formal ley the moture of the wht ehureh slawnie and if

 ally recardel at the carlien wample of tonk veriftot-
 his worke the lat in that. Shan of hewrither have then tranalater) into ferman, and there are remberime of the






Lom'za: than: in the momoment of Lomza, linwia: on







## Labicel hy M. W. Jlarmantox.


 land and of the lemioh empine - -imatiol on luth hamk if the Thames athen in mile tran it menth, the orntor of her


































Parlinmontery and other Dingsons, -For parlianentary







 divited borough of Want-worth, with thre times the pepulation of the C'ity, returns only mue member.



 Hist End, that part of hampin which lies 11 . of ole Tomple Bar. are the residene of the ariveratio, fathomble, Busi-
 Whanma whichminion to their wants. The City is the cenfor of the mereantide, commereda, and financial ativity of domblu. The Fast Find in the hane of vast mases of the indurtial j"Imation of North hamhor.
 arod be a corpation, consinting of its head, the lord mayor, the court of ahbermen, 86 in mbler, and a comet of emmon erouncil, of which here arre zef members. The bed mayn i- elected ammally the the limemen, that is, -itande free of the varinn (ity companies, themselves survivals of the trale-guide of ibl Lambon. lle is chosen
 the ('ity in divided. an ahderman for towh ward, the clectors
 lond maver is the charf maniotrate amd oflicial representative
 Wher. tha Manion llomer. where, ant at the Guilhall, the
 for lhe rent of whioh his salary mblan or never sublieps. White the comet of abdermen is the honse of lerers of the aity the cont of chmmon enmeil is its llase of ('ommons, and hens mos of the hard work of the compration. It dis-


 which in 1sws ancereded to the juristietion of the metropulitan fard of works, the institution of which gave london
 It wa enected indirectly the thestris. hat the combty
 Whand ate aflowed to sioc. Ima the ir cham to be clectiel to
 after being sathetioned hy the comet itself. The area of the emmoil's juristiotion is. on the whole, comedent with That of the 哭 metroplitan burnghs. Fach smats erepre--matives to the comeri, and the (ity proper sends 4, as
 the 'its ombiluth: Spart from the ahminitration of these fumbs the jurimite tion of the comaril and of the ('ity corpo-
小ne manh lir the imprevermen of liman ly the exereise



Thenomphfores, sifets, mid sigutres- - but of the thor-- Melafare which comert the We: bind penne with the 'ity poner. two may hended as the mot frapuented and the mant inherting. The mare nemberly of the two some




 mop than a mita, lente from tharing ('rese ly these hasy



 on side the bank of burtand and in the other side the Nancion Jonse. Ferm the liank ant wath there are two
 (commorial hoal hash to tha Wint hatia borks, and the Whtemane lamd ta Mile End.


 linell mane side by stately mansimes amal on the other it

looks on the Green Park. Three nutable thormynfares connect Oxford strect Went with l'iocullly: Park lane, akirt ing ityde Park from the Marile Areh tu llyde lark Corner ; New and ohl Bond stremts, moted for thar shmes, and wirt-
 Mayfair; and last, not least, Regrat intron, the mont frequented shoppingerromed of the dwellers at the Weat Fint. A contimation of Regent Struet. Waterlon Jlacte hemk from Piccatilly Cireus to Pall Mall, which is alsor mandol farther west in l'iccadilly by St. dames's Steme In Ball Mall amb St. dames's Stret are the mincipal chats, The roal from Hyde lark tobner westwand throngh kinghtoridge pasaes Shane Street (which lads to ('helsiat) and then livides into two, the more northerly eonducting through Kinsington to Hanmersmith, and thi other through Brompton to F"ulham.

Lombon is dotted with sunares. At the West End are Grosvenor, Berkeley. St. James's, amd Belgrave. The lant named surate grives its name to the farbiomatble racim known as Belgravia. These are s.of oxford street, X. of which are Portman, Manchester, Morset, ('aveminh. amd Montagu Squares. Near the morthwest corner of higent Street is Hamer Aquare, and near the northeast comme of Oxford Street is choho shate. Cownery strect, a montinuation of Piccalilly. leads into Leicester suare, in the vicinity of which the foreign element is abmbant. I littlo to the S.. and close to 'laring (ross, is trecless Tratialgar Square with jts fomenains and Nelson Monument. Ja the middle-class peopled resion hetween Tottenham ('ourt ham and Gray's Inn Rual are (iordon, Bedford, Thristork, Russell. Bloonsthry, Brumwick, and Mecklemburg sipuares. Finsbury spmare is one of the few in the (ity proper.

The Thames also is a thoroughfire, numerms pasenger steamers plying its comrs. At high tide at Lomon bridge it is 800 feet wite. Lelow bandon Bridge is the looll. crowded with vessels up to 400 toms. Below the Thwer, at the great docks (sec lows), deelosea navigation berins. while vessets of any tomage can asiend to bept fort, 4 miles below London Bridge. besides railway bridges, on one of which. Charing Cruse, thore is a footway for peedestrians, the Thames is spanal by more than twelve bridges, of which the Westminster, Waterloo, and London are the finest. A little below London Bridige there is a narrow subway for foot passengers. The huge now Tower Bridge for vehicles and foot passengers, formally openefly the l'rince of Wales, June 30. 1894, has its central sthat filled with a bascule or drawbridge which can he raised to allow the passage of harge vessels. Two miles below London Brilge is the 'Thanes Tunnel, ntilized by railway trains, which emmects North and suuth London lines of railway. A new tunnel. to be both a carriage and footway between Blackwall and the vicinity of Greenwich and thoolwich, is in course of construction. N(sble thoroughfares bordering the Thames are the Albert embankment, nearly a mile in length on the riglit bank of the river: on the left the Victoria embankment, extending for 1t miles from Backfriars Bridge to Westminster Bridge, continued farther west ward liy the Chelsea embankment.
 ground of the West Emd, stretchs from Park latne to Kinsington Gardens. A roul to these gardens from the man (southern) entrance of Hyle Park is the favorite drive of the upper classes. Amother a little to tha $X$. is Rotten Row, reserved for equestrians. N. of this again is a lirge sheet of water, the serpentine W. of Flym lark are Kiphsington Gardens ( 10 acres), the largest and mon limatiful pleasure-grounds in Lombun. They were migimally the pleasure-grounds of Kensington l'alace. The Cireen l'ark ( 69 acres). the most open and least wonled of the Wiest Emi parks, fronts the westeru section of Piecalilly. $S$ of it is the picturesque sit. Jameses Park (9t acres). Its wown boundary faces the front of Buekingham l'alace. Fenent's Park (4ie acres) is the largest of the West End park. Int is also more broken up than my of them the phbice rovis amt private villas. It lies to the X. of "xport sitrent, athe to the N. W. of it rises Primese Hill, lain ont as a public ermmot. Victoria Park (300) is mondern, and is the whef recreationground for the toiling masses of anch densely ] [andatatel regions of the East End as bethmal Cirect and pitalfolds. It inchudes two piet uresque sherets of water. 'l hare are sereral parks and commons in south Lombun, of whith bathersea Park ( 180 ) , on the right bank of the Thames. "中nsito Chelsea Ilospital, and also quite mulern, is far the litrepent. The sub-tropical garden in this park has a mankable monlection. The northern heights of lombon are crowneld by Hampsead Heath (oto actes), the pirk of all Lomanmers.
and unlike other Lomdon parks a matural whe with jimetur-


 a hill in its center, 1 en fent higho in the famme koyal (haservintar:


 spemb mone than a das in landon. and where she alwas


 remans of which is the ("hatrel lanal wher the Ghern wa-
 held here, umally ty the lriner of Walo. Marlmamarh Homse, bailt hy Wren for the great bak of Marltmongh. is E. of st. Jamis's Palato atul is separatel from it only b, a carrageway, in which is the matme th (laremow llomse.

 and early home of the Quen, is now uerlumat the l'rince
 the resideber of the Quent's unde the Thate of 'ambridge. Lambeth Pataer, on the south side of the 'Ihames. marly glpmite the hases of Parliamont, hats lawn fur five conturies the remidence of the Arehbiahors of ('anterthary. Se Lamberti.

Pablic Buidinge (socular).-The Tower. origimally a royal palace then a fontres. and afternard a prisan with which are linken mumerms histurical anamiations, is a group of irrendar haldings of many dates on the northen hank of the Thames, a litthe hetas bambul lifidge. Since the time of the conguren its greverment has fuen intrustel to a high oflicer callof the matahbe The isolated syare keep in the conter. callend the White 'lomer, was built by William the Congueror about 100s. This is now sur-
 Bail), lanked hy half-cirele fowers, wholl of which has a disfinctive name, as the Bell Towne, the bumblamp Tower, Wakefield Thwer. Bhanly Tomer, Busper Thwer. The mast noticeable is the blowly Tower, walled heralle it was suppensel tor have tren the scene of the murder uf the two infant princes. sons of Edward 16... at tha instane of hidharl Ill.
 the Fecord or Wakefied Towar the proble racorls of the ralm were formerly krgt. and the crown juwels, valued at them millions sterling ate now exhibitet. 'IThe list of erelohrated lerams hurima after execution in tho thanel of st. Jeter all Vimozat aml the little cemetrry attanhed to it is a long ond ranging from sir Thomas Mare (bab) to simm
 behanded on Tower Hill. N. W. of the 'rawer. The hames
 tween Westminster Ahmy and the river. The New Palame

 than 2 milos of corrilurs, and 1,104 apments, with is din-
 threw gineipal thers. the Cluck lower, an the noth sithe
 requlates its times "The Vietoris There comtans the reval
 from this comrifurs athond with fresenes hat right and left to the lobhise of the hanso of Lats and l'ommons re-
 of thathenses are anemed the (buen sitting on her theme in the Hous of herts. can sus in a diret line the shatker of the Homse of Commons in his thatir. 'Thue Howne of Lords, one of the mat ridhy demerated chambers int the

 hy 4 feed honal, is mach mose smple in chamen than the Ifonsi of lamds. The pablic mitmone to the central wetaGrom hall is thromers sit. stephen's hall, whith is limed oith


 hall is thround We-ntmintor hall, the ahd hall if the palace of the Kinge of thatand, hail orymatls in the retich of

 dustion al lealua and of orm ratway statime, it is the larer-

























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 dandl．小 or＇lowar llill．








 state faters of the kinghan．The liritinh Masemm，front－




 T＇he Sintural llintory Manemm，at suth Kemaintorn，is a hrameh of the limish Husemm，and contains the whole of








































 jne for the＇hareh of limetand in the lombun dietricts，and





 monatily on the site af a chateh baili hy belwat the tom－



 diendar，amd the ill－ennerivid wentern towers designed by Wien are in a debacel stye of direban amd dothie．The abley $i=$ in the furm of a Jatin eross，the lompth 416 feet，
 baboment 10 fect ，height of towers agi．A few yards N ．
 of the llonet of commons，in which were interred taxton andsir Wialtry lablegh，The beatifne west window was submerihed for ly ritizens of the ľ．S．as a memorial of
 state uf \＇irmina．st．Jamess，l＇bemtills，the fine interior
 is the only Wext Fiml ehurch leogned hy Wren．＇The
 hampueting－hall of the roxal phatare wf Whitehall，is now the musenm of the L＇uitud Service Jnstitution，St．Paul＇s， （＇osint（iamben，where linter，the anthor of Mudibras，was Lorial，is and forme heon desighed hy Inigo Jones，St． lBartholomews．smithfidd，or a portion of it．dates from the twelfth century ；apmosto was the stake at which many Protestant martyrs suffeted during darian persecution，and now it are a eharehand tahd to theirmemorys．Stement babes，in the Strand，Dr．Jobnson＇s＂hureh，was desqued by Wren．＇The（hatel of the Siavoy，betwern the strand and the＇lhamme belongs to the erown，and its walls date from the thisternth century．＂he＂lemple charch，very much altered sume it was built for the kniohts＇Templars，contains fone swemmen of barly English arehitecture in its burial sromm dliver tompmith was interged，st．Brides．Fleet simet，is one of Wrons arehitectumb irimphes．Jurther eavtwirl his coloseal masterpieer，st．I＇and＇s Cathedral， towers wer the eity．It is in the form of a Latin cross， 500 foet in Jongth．lls feet hroad，amel the transept is 250 feet lont The＂hner jurt of the extrour is of the Composite， the lower of the（＇orinthian order．＇Jhe vast interior js sur－
 matron form the parement to the thpof the cross 364 feet in height．Nelsom，the Duke of Wellington，and Sir Josha leevolds，with Wren himself，were bursed in st．l＇anl＇s，and a large manher of thas satwes amel momuments whith it con－ tilise arr momorials of diatinguishol mont．Among Wren＇s
 commonly callen！lbw ehareh，in the lelfry of which are the fowerhial＂Bow Bells＂：st．Michat＂s fornhill；St．Ste－ phens．Willbrow ：St．Swithin＂s，（amon street，in whirh bryalen was marivel，and into the stred walls of which the fanoms Iombon stone is huilt．In si．dibles＇s t＇ripplegate，
 d liver（romwell mariand．Wh the suthwest side of Lomban Brifge is st．Sasiomres，sombwak，which next to West－ minalor contans tha fimmot suemens of barly Finglish arehineture to be fondod in landon．In it were huried Ed－ maml shakemare the dramatints vomager brother，ilohy
 （lanman（＇atholia）（＂athethal is in somethark，opposite beth－ Wela In Ihampitat．

Combls of Iustice，Inms of Comerts．etc－－For a puriod of ＂homt senf fars the highor moministmation of efvil justice










dent at one of the lome amil to have dimel a dertain mumber
 before a stment of law ean he called to tha har. 'Thus contain numernas "chambers," chielly tonantmd by harristers some of whom resible in them. They ame wowamel hy benchers, who are chasen from the most dimpmanimedment bers of the har. The Tomple lies on the sonth side of F"leet Street. The Temple wimh, the Temple library, and the Temple gatens, which look on the 'Jhames ambinkmont, belong to the Hidhle and hamer 'Jemple alike. Buth latee fine halls, used as dininer-poms. Lincolns lmb him at very obel gate-honse, giving matranee to and from (hane ery bane in which there are miny firms of soliedters. 'lhe hall and library of Lincoln's line form a moble structure in the (iothic style. 'The chaprl was built by laison Jones. Jin-
 Gray's Inn was Lemil baton's inn. Its lilizabethan hall was built in 1560. (see JNNS of ('otRT) The central criminal court, in the Ohl Bailey aljoinimer Newnata, iv the ehief court for trial by jury of offanses commiterl within to miles of st. Pauls. For smmmary treatment of ate oused persons there are twenty-two piolice conts in lomblon prop er. The City has polier eomits at the Mamsinn llouse ame at the Guilatall. the lowl matyor wemerally fowding at the former and one of the alidemen at the hater.

Educational Institutions.- 'The University uf I.ondun.
 teaching bouy, hut grants degrees to all who pase its rigurons examinations. The mivernities of lambon which teath while not empmwered to grant legrestare kimes ("ollempo Somerset Ilonse, ablibated to the Chmorl of Finglamb, amil University Colleqe, Gown strect, a purely semblar institution. To beoth of these day-schonls are attabhert. The chief public schums nure Westminstor. fimmberl by Uucon Elizabeth: Christ's llospital. Newate stroet. cimmomly

 Colet; Merchant Taylors" schorl, fommed in 1.001 by tha Merehant Taylors' C"mpany, and now at thr. (harterhomme (the school at which, fummed in 1612 hy Thomansuthon, has been removed to (bulabming, sirpey) : and the (ity of Jomdon sehool on the 'Thamme embankment, foumberl in 1s:3. by the city corporation. To most of these sohomb exhibitions to the miversities are attachend. Varims teelnical sehools are affiliated to the City and (ruilds of lumbn lastitute at south Kemsington. Of mbontional institutims for the working clases the chief are the damdon Wiorkinarmen's College in (ireat ormond street, aml the Peopples Palace in the Nile End lamul, opened in 188F. "The latter. besides furnishing dational recreation to the artisan clans at the East End, has clasoses for techmical, serientitic, and other education, attemeterl hys sume 3,001 scholars. 'Thure are sume twenty free public libarides, all having readiner-poms.
 tion in London, as elawhere, was left to whantary eftort. chiclly that of the chureh of Enslamd and other rolirions denominations, assisted loy parlimmentary grants. Fhe eonsequenee was that in dondon and everywhere thero was an enomons deficiency uf selhool acermmorlation. The Ele
 throurhout the country to powine elementary schmols, which were to be entablisharl and smporten manify by local rates, and from whith dogmatio retiembus inatruction was to be exclutel. 'The selpon hatidn are chamen liy the ratwpayers, women being allownd both to wote and in horome members of boards, in the eloction of which commative
 election of the Lomelem sehomal hiard amd wif wher buards is that in the cits propere the elecetons are thase who redert the common commeil. Shamb fem have then abmishart, and
 actment become wratuitums. Sinm the pascind ul the at in




Iospituls amd 'haritable Thatitutuons.-'Jhe mamher of

 is estimated at five millinnstorlimg. Wf mon-modical hespitals, two are national: (1) Chelea Howpial, mominally fommed by Charlos II. and lmilt by Wran, for ald abd lia-
 pensioners. (2) fireentrich [lespital (on the vite of ank obld royal palace) was l'rom 1694 until comparatively recent gears

















 amb minicters to the modical and suresoal wationil the foint
 Bemham, has heen a homital for the inmane -inere lista.
 forty theaters. and [erhaps fond hambron mavio hall- It is

 tation as the bomer bí 1 bue laeritimate drama, brary lame
 while ('osent liarden, which when retmilt in lise was desigutal for ltalian orma, las luewme an arema for variety

 "ept whemstakibuate in revivel at the latecum, with a cer-



 and yell-appminted theatar, built for the proformame of Euglinh "In'a, has from want of sulyort hoon transformed inte a mosir hall. 'fomegh of quite mondom grontle the
 ment. "The woralled pupular concerts at st. Jamess hall,
 at them i- of a minch hiohor a blace than their tithe womd indicate. ( ratorios never fail to attract, whother givern at st. - amens llall ur at the marniticent Alhart Ilall. sonth ken-


 it otlers lesides permanemt attratiman, concerts. dramatice entertaimmonts, with lowne shows ami shows of livastork. 'Tise Zä̈lograbl (iardras, in larent's Park, contatin the largest and must completa conllocton of livine antmalk in the



 Gval. in the south of lomaton, is amotier impurtant wriohet--routul。












 worlil.






 at Whkimer, insurrers.




















 4F.









Boenke and Bunling-The Bank of Englame is a pro-
















 ato for the ammant of the wational dut on which it hat th
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 dom juint-atorek bank allow intertest on dequaits at shart




































 amd silver eoil. the root lumes its own motes. It has hap-

 has hat 10 apyeat for the diowermantht, whind has restored contidener hy sinctimatore ato infraction of the lank Charter . Tet, amballowing the lank of limelamel to issme an atequate munhar of mate withont a metallie- bosis. 'Jhe mere


(1f the landan joint-stock banks there are nine which are furely motrumblitatand nime others whith, while also metropelitan. have country bamehos. All of them have adopted the syom of limited lability, 'Thess cishteen prinapal baink, with five or six athers, which from being frivatu hanks have also adopted limited liability, constitute the borly of elaring hamke, that is, those which ire armitued
 Formerly a hank hoblour cheoks amb bills mavable hy anof her hank perenented them for pasment to that bank, an opratinu whioh cansed a vast multiplicity of transactions.
 ing-bouns, where the sifference between each bank is recejved or paid by a single eheck on the lank of Fogland.


7he stork Erchampe-This " reaty-money market of the
 Bank of lenglamel. Its members bmy amb sell all stocks and shares. doathes in which are satationed by the committee of manatioment, electerl by the members anmually. The

 those who have for four yeats hean clatse to mombers, and such charks ned to be recummended by only two members
 ing from 20 to 30 ghmeas, acembling to the date of admissiom. Xo stranger caters except at his persomal peril the ranm in which the members tramen their business, but the cherks of members are molutted.
('ommore and shipping.-The enmmerce of london is the largest of athy eity or pert of the l'uited Kinglom. lomurn has the lion's share of the trade with lorance, Britioh Imlia, Australasia, Chima. olapan, and the West Indies. 'That tatal value in lste of both the exports from and imperts into livergoml. the commaree of which ranks



 still more in taver of lamon if there were taken into accomet the value of the impurts into Sombamptom, New
 colonial produce revived at thes purts is consigned to lan-

 its own (onnamptions. is a great emperiam for distribation, whine Livergmen recoives and ships the prolncts of vast mannfataring and otherwise juthotrial districts, the im-

















 there diaded from it for forejgh whatrios and British pos-
sessions $7,8.00$ vessels，wath a tonnare of 6,049500 ．The fio－ ures for Liverpmol were：linternd．4，27：vesslls，with a ton－ nage of 5,913, ，titi，and colerol， $3,7(16)$ with a fomame of 5，206，116．Livergool employs mare veriels than dondon in
 there enteral the port of lamdon from the［．．太．609 vessels，
 thon 463 vessels，tomate $44,44 \%$ ．For dipuing in the Thames there is provillemb，chielly wn the north sille，a mag－ nificent series of dorks，moslly with extemsime bondel ware－ honses attached，where gombe tan be storet free of［allstoms duties until removerl．These docks stretch ratwarl from the＇lower，berimuing with st．Kialharimes lowke（et aures）： then come dondon［boks（ 120 acres）the West Jmian bucks （300 aeres），the Dillwall bone（ 100 acros），the smaller Fiast India Docks（ $?^{z}$ acres），and at blackwall the motbe Albert and Victoria locks，？$a_{\text {miles }}$ in lenuth，receliving vermb of the largent size．To save miles of naviration on the＇llames large pocks，miketly for oneoan stramers，have been cun－ structed at Tilbury，nearly opmosite liravesami．On the south sible of the＇Thames，lis of the Thames limmol，are the large basins of the Surrey and Commerejal docks（onon acress）． chjelly used for timber amd ewn．D．ond＇s subseription－ rooms（generally known as lobyd＂s）ocemjey a tirst fhor at the east end of the Royal Exchange，and ate the great cen－ ter for all interested in shipping，especially fur the under－ writers who insure vesseds aramst cashalties．The members form a eorporation，in whith some fito are umblerwriters and abont 160 non－umberwritura．hesblos annual subseribers． （See LLoyd：s．）．A separato society domiciled in a enurt oft Cornhill is known as ldoyd＇s lieqister．It employs more than 100 surveyurs at home and abroand，ammen whese daties it is to chassify shipe in course of bulding or when leaving the vards．

Trade and Industry．－Pnhlishing and booksoling are very important factors in lamdon＇s industry．Aemoling to the census of 1891 there were in Landan t．tios pulbishers． booksellers，and librarians， 2,147 authors，ellitors，and jour－ nalists，and 35，00！fersons engagen in the printing－trade．
 of which 1,271 were new etitions，and 1,216 wem novels．The publishers are locaten chistly in Paternoster liow annl its im－ mediate neighborbool，but suraral of the monat important firms beloner to the West liml．The number af newspapers ［ublished in Jonmen ean not be much leas than Foo，1！pward］ of thinty of which are ismel daily．（of other perinticals of all elasses the mame is lemion．I very ureat inlastry is that of the brewers，of whom there aro abont 1 in）seattered ilmongh

 at $£ 330,460$ were shipped from hombon．The neressaries of life are dispensed by $14,360^{5}$ butchers and $15,161:$ bakers． The innkepers，hotej－keejers，mind phlionas number（i，6is． and the colle－honse and wing－home keepers 4．60\％．The
 the popmation，coach and carriage 9.0 oon，Wateh－makimg and philosophical－instrmment making ujwaral of 12,000 ，polid－ smith work and jewelry mose than 7 gooo．An enommons in－ dustry is the chemp and seemol－hame elothiner．the trate of which is mainly in the hamds of the ofers in Whiterhatnal． Of the＂apparil＂exportorl from thm［nited kinurlom to the value of $\{4,874,091$ in $15!1$, ， $0,096,150$ was dorived from London．Whitechapel，ton，is one of the promeipal seats ut the eigar－making industry．It Bermondsey，an the sonth bank of the Thames，are iammeries and what are suld to be the largest leathor－factory amel the largest hat－manmforony in the worlal．At Batterseat are camblo and edmminal works， while Lambell is famons whidely for its jottorios．la ma－ chinery，engine，anol boilor makime mainly hy far rimosila on both banks of the Thamos，Ph，itio jreroms aro empaged． How vatis the demamel for fomale labor in fonslon is inmi－
 there are upward of 123,000 women employd in millimery， shirt－making，and tailoring．
 from the Celtio IJyn－tin，the laki－fort，wrectod by the Britons when tha＇＇lames at lambun was a ereat latomen The datinized form，Lomatimime，tha，mamo sivan it ly the
 that in A．D． $6!$ traters and their merohambian atmambal in it．During a bried periond of the lioman undupation it was
 Saxons，who had mate it thrir anpital．It the I＇mmpest （1066）Coudan was the eapilat of linglamd．William the
（ompurar gave Jomblen a sperial chart＂r，and arontror，giv－ ing the atikerns thas risht to enaet their primeipal alliotals， Was gramod by llemry l．in 1 lol，amd the dirst maver was



 pinns uf publice librty ： They adhereal of the lonfomation when（fume tary was




 lesely to arrest its growth．Tha migration of erval moble－
 of Lomlan in lefitj leal te the sulstitution of bried for wonl
 century lambon was greatly extembed，hut it was bearmal for the ninoternth combury to sere it aborbing liment submer

 and makine intereral ports of itsolf—syenham and［bu］－ wieh on thre somth widn al thr Thames，and on the north sida Chelsan，Kensington，llammernmith，amd Joblam，So groat

 ciles in the sulurhs．＇Jhis mieration is strikingly exhiloterd in the statisties wif the inhatitanto of the city which swarms hy day with a hasy popmlation of loonothon，while jts pex－ Gents，whon even as late as 1801 were 112, Mid，hat sumk in 1891 to 35.70 .5.

Biblomidapme－bome alome Lomdon form a lionary in
 in the benk of British Toprogrophy，lis ．I．P．Anstersom， which was issued in that vear．The hest mondran deronnt
 is W．．J．Iontie＇s Jhistory of Jomelon（1－s，i），the histmiend bart of whill is abridged in his London rity，its Mistory，

 are fall of picturesige writing alomit tha＊bast of the wreat
 amid Walforl＇s old amd Vem Lomdon，With maps（ 6 vals．，ill－

 Shomblook of Londem，nlphalnetioally arramged and there－ form very＂onbenient for comsultation．has hern excernlantly


 and trast worthy．simed dest there has unfortumately been nu tdition of lr．C＇moningham＇s natinl Ilumillowh of Comelon as it Js（omm of the John Xurray seriasi，so that for erntem－








 cially his life and habor of the l＇mple in Lomdene（t vollo．， $14(1.2)$
f．ドートリスがい。
Lomdon：city．jort of entry，ant capital of Mithlhasex O．，Unt．，（＇antala：at the junctiont of the moth suml sonth














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 a diphomation lurine the wara of the fromeh hawhinat：


 and under se retary for the war herament in lvas：diatin－ guthed himedf at the hatal of a brigeme of hamars uader




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b．there patent a－an examinine hady fure and simple，with
 waprat．body of the wnitersity inelules the chancellor，





 （1－（4）Land Ilershell．

C．H．Tulzher．

Lour．Crawforl Wi．，M．D．：disenverer of anasthesiat；

 ardelaten at the mandial depatment of the loniorsity of

 on a pathent fully th arized that the wrifl hat any accont of．Ilis dismory of anathosia in sumery antedates the clame of Homan V＂ells two years and eight months， and thee of Mopton fone yeare and six monthe．In
 Humphry bive exprimuted with it，mind in 1800 he pub－ lished his $h$ werarches．（＇hemical and Philosophical，chiefly concrming Netrous oride gits and its liexpiration，in which he distinctly amonacol his bolid that it might be used as an anathetio in survioal areations．It is well known that sulpharie ether wat used sprtively wor since the berimung of the nimerenth erntury hy the subuth in New Fugland （a）leges：and in cortain serimons of the somth its use as an exifitant was at we the wry chmmon．In 1842 Dr．Craw－ ford W，Lug hial four sthdent：－vi\％．P．A．Wilhite，D．I． Long，H．K．P．Lang，and Inhos diroves．＇lhey all ocea－ sionally induled in＂．＂ther frilics．＂（on several oceasions Dr．Long heram furiouls exatel umber the influence of ather．and would mot he coistrolled．After reenvering from the intexination he often notierd that his arms were badly hruivel，and he was mot conscions of having felt any pain at the time．From his fare he inferred that it might be weal as an anathetic in survery．Accordingly，for this purpme he alministered the ether to a young man named Comald．putting him profmed！under its induence，and then exsected a tmmer from his neek．The operation，en－ lirely panless，wa－witnestal hy the four modical students athe named and by others．lifis ombatims were known to medical men in the neighomhod；but lr．Long did not commumicate his discerery to any simbific body，nor din he write it ont for any modical jommal till the year 1849，when he sunt it to The Siomethern Medicel and Surpiral Lournal， wheh was lons after the lalmers of Wells，Monton．dackion， and simpson in this direction were fully recognized．In a ＂wmmaniation ly Pr．（harlus＇I＇．Jackson to The Boston 1Hedical fonernat．Ipr．11．1sti．he siys：＂From the doen－ mats shown me by Ir．Long it appurs that he employed subpurie e ther as an anasthetio arent－lirst，on Mar． 30 ， 1－42，when he extirpaten a small shandular tumor from the nerk＇if lamms W，Venable，a boy［Mr．Venable was just twonty vears oll when the opration was parformed］，in
 amputation of the to of a Kerero loy belongring to Mrs． Hemphill，of Jacksm，（ian，Thint，on Sept．9，1s43，in the extipation of a tumur from the beal of Mary Vineent，of
 a finger of a Nerro hoy blonging to Ralph Bailey，of Jack－ son，Ga．Copion of the lefters and depusitions proving these unrations with ether wop all shown me hag lor，long．Ile





 of Sirginia，then being ogmazed ly the vare of Thmas

 himende to the literary enterpriacs of the siminty for the









Classica. Amoner his puthications are an abition of C'esares Giallic Wiar, of Šallust. and some orathons of liverof amil translations of select Liews from l'haterch, The Thments of the Emperor Marcus Aurolius, and Epictetus. 1). Nug. $10,1879$.
léevised by hapred (idpagin.
Long, Stephev llarriman: ohtor amd emomere: b. in IIopkinton, N. H., Itece :30, LSA4; eraduated at Jortmonth
 Doe. 1814 , and in the spriner of $1 \times 1$ is was phaced on claty at the Military Aemdemy as Assiotant Jrofesor of Inathematios. In the following yoir he was apmointed topmgraphica! engineer, and explored the Jllimsis and Arkansas rivers in a thatbont or canoe. Jhis led to his suluseduent expedition to the Rocky homotains. which extomded over at periond of nearly five years, and embrimed the comotry betwenthe Dississipui river and the lareky Womatamm, one of the loftiest peaks of which ereat ehain still bears his mame. An areount of this "xpration was published in 1x: by dames, and in $1 \times 24$ IV. II. Keatinir publishem in twa wolumes the histary of Longes exphardinn bet the sources of the Mississippi, both works being laredy from notes of col. the Baltimore and Ohio Rablroal, and introdnced great improvements in the comstrution of Braderes (\%. I). In the improvement of Wrestern rivers and hartors he had a lomer experience, and tevised valuable phans for the remusal of obstructions. After surviner an bomed for the improvement of the lower Miscissippi, he was in 1 sigh placert in charge of that work, and under his supervision the contracts for deepening the months of this river were condurted prior to the civil war. (Col, ! whim was ratirel (Iane, $156 ;$ ) frum aetise service, thit continmed charad with impmotant duties until his death, wept. 4. 1N6t.
Long Branch: town: Monmouth co. N. .T. (for lncation, see map of New Jersey, ref. \&-W) ; on the Athatie (bedm, a
hranch of the south Shewsine river, and the (ent. of N. J., branch of the south threwsing diver, and the ecent. of N. J.,
the N. J. South., and the Deme railwas. Santy llook, 30 miles s. uf Jew Yurk. It was formerly in fishery for the Indians and a resurt for wreckers, but has become one of the most noted summering-pares in the $(\mathbf{L} . \mathrm{S}$. It is easy of aceess from New York and Plilallelphia, ame during the summer has almost homyly commanication with the former by raid ami water and with the latter by rail. The town is famons for its magnifiemt beach, which estemeds nearly 5 miles within corporate limits, and is overlonktel by a bluff averaging 20 feet in heirht. The main thoroughfare is Ocean Arenue, which skirts the huff for about tomiles, and is kept in excellent condition. Some distance back from the ocean is the great llollywool estate, lain out by John lloey, and kept open to the public. The town is divided into several small places such as Nurth Lomer Branch, West Long Brameh, West End, and Elbeloon, and has many fine drivoways, leading to quaint suburban vil lages. The fanous Monmonall Park race-course is about it miles inlant. Long Branch contains nine first-chass hotels, many hoarding-houses, amd a large number of teantiful durivate cottages. There aro several churches, a $[$. S . life-salving station, a national bank with capital of s.j0,000, a state bank with capital of $\$ 90,000$, a public library and realinerroom, and a monthly and three daily periomicals. I strectrailway connects the town with Pleasure bay on the showsbury river, a popular resort for fishing and yachting. Thesident pop. (1880) 3,833 ; (1890) 7,$231 ;(1895) 7.333$.

Eiritor of " News."
Longet, donzzhä, Fravgots Acmille: physician and physOologist: b. at St. (rermain-rn-laye department of seine-t.tOise, France, in 1811: studied medicine, and exparoblly physiology: gainel twice the Montyon [rize of plysiology at the Acalemy of suinnees: was frofessor of llywioney in the Faculty of Malioine at Iaris; member of the Somiemy of Medicine, and conculting physician to Fapmbon lll
 du Systime nerveux (1842) am! Troita complet de Ihysiologie


Longevity [from Lat. lomger vifas, length of life, doriv. of longe ens, long-livel ; lon gms, loner (: Winer long) + orcom,
 age, whence Eng. age)|: the lenerth of timp durine which an indivilual lives. thaterm is also wfomusen? on expros tha more than usuad prolongation of life, especially of human dife. The average longerity of a partiendar group uf imbiriduals is the average haration of life of all the indiviluals in that group; this is what is called the expectation of lif ${ }^{\circ}$
at hirth, athl is msually cenasiderent in coanmethme with the

 lomerevty-that is, the ereato-at lagh of life athamed by any individual of the partionlar errouls. 'Thivatain is divinderl
 thast which brelonge for the apocion in its nommal ernalitivas.


 and the dower animals, that is not of mash inturtance as
 tial, of diferant specins of living lowins varios wreatly, tho range being from a few hours us dats fon orrainm minuto plants or complete torms of inserts ti: 2,004 yours and more for a fow indivithat yews and hambatm。

For the majurity of mamals, aworme information as to longevity is wanting. l'ike aml and hase lnew hanwal to liva 150 yars: tortoises about tho samm. Vamen. ravens.




 bene fomad in the jaws of crrtain large whales. it is computed that the longevity of this gammal is at last 400 bears. T11 mammals there aly mas to be some redation fotween the duration of gestation and longevity, fout to this there are many exequtions. A more constant redatmexists betwent the jerion required for completion of erowth and the longevity. linffon mapposet that the ratio of demgth of growth to length of life was 1 to $\%$. Jharens gave it 151 to 5 , and defined the end of the periond of growth as heing that when the epingses form a bony umion with tha bumea throughont the skeletum. The most inturesting quations in longevity relate to man, and may be stated as follows: 1. What is the greatest ace that any homan bring has over attamedt $s$. Epon what dues the great longevity of different indirinluals depends 8. What is the averace lmmevity of different grouss of men? 4. Jlow can this average longevity be in(reased?

The ereatest age exer attuinad hy a human being in an authenticated case is that of a man named Rises, whe was living at 'Turbes. Franer. in Jome, lase, and whoe haptismal certificate stated that he was born in Ing., 17.0.thus making him out to be 118 yors obl. "I'he colaims that 'Thomas
 and other similar cases, are umbulputed by satiofactory evidence. and there is nu praf that any wne in Fingland or the $\left[{ }^{\dagger} . S\right.$. hus ever rathed the acn of 110 years. The longevity of man is usually erven as 10, yars, lat there are several well-authentieaterd tases in whieh it has been botwond 100 and 10 years. Iblere is no reason tos sllylose that the potential longerity of man has diminished since he dirst anspeared upon the earth. Seseral invertigations lave bean mate to determine the eharacoteristices hatrits, and motes of life of persons attaining a ereat age, one of the most comphete of which is that mable hy the colleretive inverigation committee of the British Medical 1 sumpation, the rewnles of which-including data from nemrly ! an persons. of whom Tf wre centemarians-have bew pmblishod by sir Gerome Ilomphay in his treatise on oh! ase. 'The qemeral remit "f this, as of similar inquirise mudertaken in the $\left[{ }^{\circ} .5\right.$ and ebowhere, is that the ehbef requinite tor indivilual loneme ity is as sperial eonstithtion of the louly. of en indwritud,

 to disturluing agencios. The fart that eath individual has his uwn Intantial longevity implese that there is something in his ot lucture which is sul inheratht and necessary eman of death, 'l'he common iblan is that rath fortiliziot rivm

 us the physion basis of lifte: tlat this may be watad hy

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 Spaside and the Fireside；in 18.31 I\％dinden hergrod：in 1sing The simy of Hinuruth：in Naw the contathip of




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 a larem complimentary rote for the low rentorshat of the

 have enjoved wido＂iroulation，not obly in the C ． S ．，hut in an equal ineree in linghul，where their fupharity rivale that of the heot mandern Burdial petry．D．at Cmintide
 Samuel，and puhlished in boston lang－sianad timal Mome－ riels．
licuised lig II．．．Bram
Longfellow，sablat：meryman and antar：h．at



 N．Y：：resigned his pulpit in lation and wat ahnam．In


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 gretional l＇sp，amb amall volume for the vooper aryine


 Sifp of his henter llanry，in two whmes to whith a wal－

















 the Limes of bempiten fétimtors of his awn＇entury，with

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II．．I．










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 Len，and the artist＇s brother．Phatarte comminemed him
 monials while he wha at Milang of wheth he extental tive．





11．．I．－मllimas







W．J．










 a famous tratime on the Sublime（ $\pi$ epl íqous），which halonges














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 diw under water．The gromp i－mat anatulat and is




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 nesting Xew York hay with lange lame sumbl．It liew






















and probucing－hellti－h in erval gmanti．























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 southorly arm of the inland formimate＂©n Mantank Point．




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about 800 men．The ammal ratid is atwat $1.30,000,000$ ，





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 shown hy the followinir table．

| consty． | 1：！ | ISIO． | 1830． | 18.50. | 18：0． | 1880. | 15： |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kilugs | 4．10． | 4．313 | 20，535 | 130．nc： | 419， 9 ［1］ | 549.485 |  |
| Qumans | 16，01．6 | 19.3 3t ${ }^{\text {a }}$ | 20．till |  | 73，443 |  | 12 ck 00 |
| Sulfulk | 16， 14 | 21，${ }^{\text {a }}$ | 2i，im | 36， $4 \times 2$ | 44,1624 | 53， 6 | 62，491 |
| Totats | 30.313 | ヶ．介． | 60， 0 | $\because 12 \mathrm{c}$ | 540，6\％ | 743，95 |  |

The eitio on the ishmal are Prowhlyn（kings（ounty）， with a p＂中ulation of sim． 3 ats，und Ling laland City，in
 （onmaty，with its cathedral and schools，is about 19 miles E． （1f Bramkly．

Khisfory－－＇hae Inteh name of the ishad was Lange Ey－

 （ame into p＂pular ase．Its Imblan mames ware lammancke， Sewablacky，Wamponomon，und Matouwatis．The island was visiled in lhog by Ilentrick Iladson．who probably


 ciffrewans，＇The company grantec at patent of the is band to Earl stimbing，who died in 1640，amd the same year his son survemberal the gatent to the Jhike of Vork．Sedtements leman at the east amd west ends abont the same time－at riowamms（brooklyn）in 16336 ：（indediner＇s islaml，Sonthold，

 tribes of latians．all having the sime gememb charateris－ tirs atn！habits．＂thas ledonged to the Mgomquin mation and were of the lambi－leman sumbivision of that mations But litt le i known uf their hangatge or eustoms．They lived mainly on ti－h am！shodf－fish．and by hanting．＇The inhod Indians in the ir fristime charater are long extinet．A few individuals romain．who show sme traces of aboriginal

 the Liate supports a schoul amoner lam．In the viobinty of

 evihenees in remains diverorerd near Aqueboerne that an－ wher and ditferent race hal oxaphed the indand earlier．





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 of an altack on Niw lork．amb in the eivil war lomer land dill hat fall dut

Rovind hy（izmkit smoth．

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Arangetule o! Wiathomion.













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 romere of the kine who at herth he his vidation of privi－ lege in the attomptod arizure of the five mentere in dan． 16f？．manle war mevitahm．With the defot of the kine power panal int the hands of the army，which by the law－

 ＂athed in derivon the＂＂hmp＂Parliment，organized the


 thotity after tha doalh of（rommed．it rasembled issmed writ for anm chection，aml dimolwal itself Mar．16，1660，


Lanestret．Amatrs Babows：lawger，clergmm，
 graduanal at Vate（colloge in 1813．He stmited law at Sinthtield，（amm．，and was ahmitted to the bar in（ieorgia in
 thestath，and promoted to the bum in the omougee ju－
 mosing th Smata：antinned the patioe of the law and

 Fpiscopal ministry，and in is3）was elected to the presi－ Hebry of bimery Coblere at uxforl．Gat．，which position he lillof with great ability until tses，when he acorpted a similar fust in cembrary colloge．Lan and shortly after－ ward in Miswing lif livirsity at Wxford，Diss．We became pmonemt of the south Camelina college in 18．5a and just In fone the war returned to the presidency of the Linversity of Mi－winippi．Thes bea known of tualge loonget ret＇s writ－ ines was his forging detmes（1s40），a sirics of humomers dictones which qaincla a wide fepharity．In，at Uxford，


R－vind by II，A．Remers
Lanetrect．lams：gelaral：b．in Edgefield aistrict，
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 tho reat enare of the army falline bink from Yorktown，he hatl pand thoush Willimatme May or ke？when he

 lowing the woran of the main army to lidiment，himelf








 athl antur．Where the aumalt was so fatal to the Federal army，After the batter batthe ber wan tompraty detached





































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Idowhon I-laml: known the Tapmon as Rin-Kins




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 in lumh Jomh from Aata, is funt. The that perpulation

 of males.
.1. M. Misus.













 there were " there motamente which were to follow eats cther in werestm," and ho arrangen his mowr-hom to prodace have batement in preptomar and time
 warp longitudinaly intutworat- leaving a pare throngh
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Fin. 1.-Hatiltwin.

 the warlethrems: it may he for weaving with but one color




 the two designs will show shmilarity in the andital movements.

Construclion and Operalion.-I'la pain prwar-fonna is











 low, dal: there lovera are eath in contact with revelvine
 volves, ont calla depreses the lever in eonamet with it. and





 On the other. usiatly altermatiner, are separated as the harnesses are brourht into difarent relative pesitiunce athe a space formeal hetween the two sots of warp-thremls: this, space, s, is alhad the sherl, and is prondured by the firm at the
 contaniner the weft is pased. leaving at atambel the weft in its jath, amd the secomel movemant is romplotr. In most power-looms the shatthe is thrown ateros the loom, thomirh








 picker-stiak townol the fabrio, and at the same time the shattle through the shed presiously formend.
 is aceomplishat by the quick struke of the lathe. l-that part of the lamo which hollo the rad-whied is comberted with a crank, lis. an the driviner or the u!per of the two
 ing molion, amd. luing fomerted with aml mosable on a roeker-arm, 17, at the lower part of the lam-framo. winge in a small are, the chord of which womld the twite the lemonth of
 ward the fillimethamal is beaten up arationt that part of thas fabria alrealy prodned.

The continued remotion of these haren mosamute is the proess of weaving complate.

 the netion of the weaver"s foot on thas trandles: that shathe is propelled by the hamd, athel the stroke of the hathe or


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 be so placed on the bat of ehata that any of the imbivinatal
 ehain the harmess will lowser, Thas the ehama may lue bult to raise or lower ans of the harmone athl in athy ariler.








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Fiv. 3.-Jacquard manchan.




























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 Franklin, (1.. whre he stmbed Finglish, fuml in 1840-42



 ation as leador in the primary degartment. After serving
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 binger: in a cobtribitow to the lading publications of the
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J. Il. Garbison.

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 abatimentand batrotion of the arerage rader. Jo began with historieal sketehes in riahurat, or, as he sad. dramatie form: Frank eath birswlen en Jacula ran brijeren (li!o-



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Merbike II. -amit.

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 and of other important wents, and comfored math with
 Wars and other publie atairs of Potasal. He diondother
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 tation for learnine woplally in law. Iftor the death of




 a cepher in the administration, and from this time lan


 tion which he had writhor, riving manimind poware to the









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 1462.










































































































Henpry II，smatr．








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1．（＇．Mansit．





















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 forest is probahly mbrekent. Rubler and other furm prosuctsare obtainel atwot the ereat rivers: richatilthede axist in the llathaga, and are worked on an chatl -ratle and gold and other minerak are reportent: but the futare of the departmont protathy lios ine its fortile ail. At present

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1. R. M.





























 SunCristahal.




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 rity is lishtorl with gas ablel electrioly, and has over 100



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 tanether with his two gomaner brothers．lapinamblamis，iat the govermment of the empire and with them ravided the clam of their half－hmother（harlos ter a portion of the for－











































































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 the British Mandum and the hathling ut the Wishminster

























































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The lase of lly lomivionor ('smpme! - At the beginning



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 lation of low lomatition. It wa- now a great sexial and


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 pixguc, with thar trritorike and the kinghip itself was a bank rather than a pewor, but Lomin $\mathbf{T 1}$. deelared that his


 nut. and a forling of natinal unity became prevalent in the
 $11!!1$ : son of Lomis VI., marriod Eleamor of Aquitaine,

 and wih Hent Il. it Engband. Th 11 th he phaced himself

 of Dhilip. dughta, was stoped the the per in his progress arainat the Finglif. who at his time were mearly driven nut of l'rame. He twier invated Figham, num then made it comalugatinst the Altigense's, which contrihuted much to

 in 121., a sun of Lomio. Vill., was only bleven yars old when his father died: huring his minority the contry was governen by his mather. Rame of castile a woman of great
 thron himell, mal shotly after the count of Marche rose
 Lomishafated than at Taillehourg and sames in 1242, and after the velory he trated the rehellinus cemat with so mued masmanimity that he wom mon mory the respect, Int the grond will, of all his vasal. The mast prominent trait in the

 was the minti-pwer in mest of his actions. When the masatere of the chriatian inhatitants of hernalem in 1044 broano known in Furnpe. St. Lomis took the cross in suite of all the remomstrane of his mother and comociore and in Ang. lith, he alparted with an army of 80,000 men from Aigurs-Mortes, mi the Moditerramean, for the island of
 himictia, but whon, after five numbis pest pomement, he
 tions in the hattle of Mansomah, and on A pr. $\overline{5}$. 1050 , was
 mamber meanwhile had been redured toatout 30000. After
 where he romainel sereal vars labring to do something for the rane of christianity in the we wions. In l20. he returnod to Prance with atmat 500 followers. The following tifiow yars of his rign were marked with many wise, not verme reforms, such as "la Quaramine de Roo." by whiela a trues of forty days was extahlished from the commital of an offomes. ©hring whid torm the case was tried ly the rayal enarts, and any attenp at frivate revenge was phathineif: "Lat Masmatiqu" sumetna." by whel it was Forthidhon io levy momey in Framer for the pipe withent the

 fommation of the sulwhate of the libary of Paris. The

 of hia rate entite him tor rengition as athe of the grater








of Charles VII．Hio private charmen wa hamh．gravine and suspicions．but his talent an a pular wa if a high uremer．
 of the Fromeh crown in thin torritorys and fandend mamer．
 in gencral：hat the mons the which he rarland the formal







 Ferpignam，we．，but his principal atequition who the in－ leritance of chardes the behl．（harles was a momber of the learne which was formed nganst danis in tha therimane of his reign be all the prine inat vaseats of the frometherewno among when wasthe lingrsown henther，the Duke of hars After the hathe of Mont llliry in 1465 ．lomis mande wreat concestions to atl the mumbers of the bengur，lut hasiner

 Tours，and reommoneed the quarred．He mow invited （Charles to an interview at lemme，and whate this tow place he incited the eitizene of hiage to revolt aganet him． As soon as Clathes hearel of this thamery hereized the king，and liberated him only on wery hard comditans．Jomis． now alliel himedf with the louke of burrane ath the swiss， and when Charles fell in the latte of Saney（in lear）he at onee ineorporated Changura，Arthis，J＇iearty，and jart of Flamers with Frame and managed to kerp them in spite of the protest of charles＇s lacirs．In his inturat puliog he favored the lower athl midde＂classon，＂specially the citics． encouraged lempning，art，manufatures aml trale，improsed publie roade and camals．astablishom the firet post systam， made the administration of jutioe regalar and deapi，ete： nevertheless．le was formed and batom，not only by the feudal bords，but ly all，and he sum the lac vears of hif hife in the fortress of llessis－les－Tours，whate he died in 14－3．He did much to breat down the feulat mobility and centralize the govermment．Though matened，he fiverm the miversi－ lies，and promoted wormal order．－（13）Laris Xll．（1498－ 1515 ），b．in 1462 a son of buke（harbe of（rdans，suc－ ceaded Charles Vill．As a despendant of Valentina Vis－ conti he Jide clam to Milan，and in 1.500 conquered the city and took Ladovion forza primmer．Ia evane ion with Ferdinand of Aragon fur som after enmucred Naples，bat． disarrecing about the partitom of their conguet，war hroke out between the two allios，am in $150: 3$（imasatwo te Cor－ dova expelled the Fremeh from southern Itals：In 1．00 Pome Julins Il．Gomaed the Jotaple of＇ambay between Ferdinamy of Aragon．Lomis Xil．，ant the Eimperor of Comany agamet the mpublie of Vance：hat Vome laty－

 the l＇rench in laly，the leagne was suldenly disontert， and a new one the su－called Holy latigut，whe formed in 1.51 between the［n＂re，the emperor．Vanior，Fiorlinand of Aragon，and llenry VIll of burlam arainst Famen．De－ feated at Kowara，the fremed were driven out of haly in
 with an army of foom mon，motharing jomed the im－ perial army pushing forwarl from the Xitherlands．ho


 of his lat ante was a mariage with Mary Tumber the gomer


 the country was germed by hiv mother and har fasurtic．
 but the government was only a mivare of wabmo．bis
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 teral the conneil．and guided the alfaim of the gemernoment fur the next eightent geare．Tha kine hand mombly in w－
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 (") dos sur. The raviance. howerer. was forberl with vorlonere. The Parlianeont wat lroken mp, its members pun-
 (rgimized. The molility lon its comage ami its love of cobntry by givine itwlf up to the vices amd frivolities that
 elerey was diviled inaotwo antagnomiot interests: for the highar prehateo had the rank of mohlos amb were able to im-
 conpt from the nowsity of haring homans themselves. The lower clary ware indmally devotad fo their daties. The hargher of itizan clas- han grown in proverity since the drath of louis SIJ., but the fotsantry was in a most wrelehed mondition. . henut a quatrer of the soil was in their hands; hat the bambens af taxation war so excessive and the lark of rapial an miversal that arry your thousamis of them wore ralmed to the point of fabime. Natlers grew wore butil the hilges death, which oneurred May 1. $1 \%$. Ilis mign, whith extmbled wirr forty-nime yars.


 momals, and capahbe of makiner a sacrifioe for the public Watal, hat his wall was weak am! his intolloct harrow. Ile san mathe torompmeneml the sitnation, and be was enlirely
 proath of the labolution. The finamees thordened by a

 America, formall the pint of issme. The anman budget
 remedies-restriction of the ${ }^{2}$ apenses whiel the queren and

 in such a dibemma, honed to tima a third expedient by apo pealiam to the perple: amd thas it emme to pass that he
 the statestioneral. whinh had wat met in 1.5 years, hat afforidel th, "phontmaty for whtarak. Wlas the represent-
 the ollar watate they detomimal to take matters into their
 laprobenes of the ithation lad lo all manamer of excesses. The king was finally triod, ondhmond, and exemoded dan.


 the lowre of the 'rompla. hut wanafter the derapiation of his tathor separalme fom his mother. amd diad of ill-treat-







 mally suly a -mile, amd the whet of emigrants la asomalled



 sife : lementh people winh whet the king was in full harmony-

nambely．the ald rmigrant







































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## じ．S．mancy









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 - far abmund in the 'lo retary and jues.






 Faridy than in any other state jathe laion. Came birds aro fomal in quabl plenty, and attract many portsmen in the wintur stasum. The waters of the fialf affurd an abomdant suply of the ehoiest varitits of fish. The jrompano, Gumishmarkerel. sherphand. red smaper, redtish, sua trout, comber, and many othere me noted for flaver ant abon-
 in mon entemerl. '] he oystors are of the limen puatity and very abmadat. Shomp, erabs erayfish, and other shedlish are a commona article of diet. 'Tlue live steck does mot eon--litute so indurtant an intorest relatively as formerly, or as it atsurns. W"ith some hawhacks. the country is favorable to animal life. ex wedally if it reverves due attention. The number and value of the live stock is as follows:


Climate- The climate is mihl mat gemiad and little expused 10 ext remas in temprathre. The preatent extremes of tomperature, with the least ammal rianfall and earliest and most froblent froses are maturally fomm in the north
 mad rabiall. the lawest sumaner mat highest winter maximan tempratnres, and highent winter minimun tempurat

 fratur": for while the finde section has a hishest maximum

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| Acalla | 111－1＇ |  | 1：3．31 | （rombes | 1：41 |
| Ascernsion | 1115 | 16． 2.65 | 1！8．iti |  | 3，1：1 |
| Assumbitiont | 11－15： | 17．1411 |  |  | － |
| Avoyrdres． | 915 | 16.15 | \＃－1，1\％ |  | $\therefore 11$ |
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| Catmurabit | 111－13 | 2．114 | ジロ゙ |  |  |
| Catahenda |  | 11.20 | 12．nt？ | Harcosmburs | 3\％ |
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| Franklin． | $\underline{T}$ | 1i． 15.5 |  | Wimmaturnmods |  |
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| Heria | 111） |  | － 1.30 | SuW Ihrlea | 3． 117 |
| Itareille | II 1） | 12.211 | $\because 1.4$ |  | 80 |
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| Jefferson | 11 F | 1：163 | 33．：＊） | 100＋tha | 8．30： |
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| Posinta（＇onprate | 411 | 11.05 | 1！1， 1913 | Sıい Ronbla |  |
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| St．Braparal | 11－17 | 1，10， | 1，3： 4 | sit．Bronami． |  |
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| St．Martiri | （11－1） |  | 11．35t | －t．Marfituill． | 1．411 |
| St．Mary． | 11－11 | 1 $5, \times 11$ | ？ $2 \times 1115$ | Fratshlam．．． | $\because 1 \pm$ |
| st．Tammmany | 11 ${ }^{\text {b }}$ | 1i， $2 \times \sim$ | 10，lial | （ $1+$ binglan） | 隹成 |
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| W．Baton kibust． | 117－ド： | T， 16 lin | S．313i | Purt（llara |  |
| West larrull． | 6－F： | －Tit | 3.75 | Flosy |  |
| Wrest Fedicimma | 1－E： | 12．4．3 | Jis．192： | st Frameisvilu． | 50 |
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| Totals |  | 4，331， 4 4， | 114．53： |  |  |

Principal＂itiss and Tonens，with Popmlatien in ss：＂，







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lin＋man Catholle

18thliat




















































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 so that in the thend of sem, whilh wan highow han that of










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 a renewal of ehater for the lanisiana lattory fompany.


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 The mene extomend histary in that of charlas fayate (t

 Another valuabla work is 1'. X. Martin* Then Ilistor of of




 Mistory af - - merira. Wharay Ibratov dallatio.
 see map of Minanti. rof. :3-1): un the Miniong rive rand














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Lanis Platiphe: Kine of the fremp from that modu-

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Lonisville: the ehinf city if kimathey and apital of






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 $\therefore$ is wery striking. If phat is that of a arion if hathen





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Shawne frak is a low fhan on the hank of the ohate


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 Collowe.




 Siventh-lay Alemists. Cuitarialls. Lated Brethren in Christ, and comgregatimatias amm cach. Some of them, *-pectally the Wiarn Memorial, the Coblyary, the ('athe-
 siontical arehternate.






 dentitry, :chow of phamaty an art whol, a number of


Liberits-The ondy phlic lithary is that of the Poly-
 bowerer, surh liturics an that of the batist Theologital Seminary, the Loulswill Law Sehonlamb the medical defartment of the ["niwersity of lani-sille. Which almast serve the pornme of juhtie collections. There are several private liburics which are large and valuable. one of which has in


 hompals, abym, intimaries, whathare, homes, etc., haring 1un fow than thirty-five.

Fimenct-The !ranerty within the city limits was as-

 *rument. In alition to this tax a considerable sum is


 med the ammal interea of the bemed deth of the city,
 it fallo dite.

Mandiathring and buximess Intrests, - The census of





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 wit of whith ther mahe 13, Niothe Ith, of leather. wih Ken-
 whishy: the mills make ?, matorn harrels of hydranlic
















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 which will take manh of the phomer uf the eity heretufore vester］in the mavor and rombeil．















 （18：





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 （1501）6，心．










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 rnimals or plants．＇Tho plumal uf lumer in latrey








 （1）asdalk．





















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 I＇alatmat，








 sudurdy. Jaly 15, 1691.










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 prefered to take the ap"rite andre: inturine them for lin-

 his son to light for the lementar, while he motested hisumen





Lave [Amglo-Sas. lufi : (icom. Liche): the sutiment of



 bar word "hove" coner the fomber, in "hate" raver the hathr.
























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Lankel at from this puint of virw, enotions rest upon impuher and exhibit the tworeat dire tions whiel appear

 carefol and exat, no doubt, than the facts warrant - wives
 1. Wurlose (q. M, and reserves for cmation whly the mental -xchement. agitation. fell dhartano of romscomeness. This, at anty mete, herve to cower hoth iofurd of the case, and gives us a themmology whel may he consistenty maintained.
It in in view, therefore of the diretion of the impulses which the expresive emotims anempany that emotions of low ate divinguine from emotions of hate:

The Threhapment at Eimutomes of 1 traction and Repul-vim.-L'nder the gemeral hemb of at raction we mar include
 in it - moner from the shath forling of apmal to the buisterms יxpreminn of on ial enjoyman, or to the quicter but strmar mosinge af atertion and lave. The progress of
 leveting and tyital dhater in the natural himary of ferling.
 it comb inte char relatinn with one"s self. Both simple
 adme of ethmetive phatitio in the prom or thing in quesfinn ted to incrase its athating fore forther, any

 rainer mir interest, make its preme a matter of meet. We


 iarity will hames alwars leads to attroment to them simply lyandiation and inturst. If the thing is useful we breone further athachol to it: if it turn but useless, we -imply neglat it : lout it still has its phate in its interesting onsiromath. Things never aromer in the the oplosite, repallene dmotion exept hy sume kind of association with 1"गoms

In the case of persons, on the wher hame the simple at 1: hehnemt which how heomes, in its wirlat form, aimirathon, phase wer. on further aterpaintane with the person, into al mone pestise and vigorms andinn. St renghen the ties of assmation and self-ribution (hinship, partmership, ate.) sutlicienty and the emotion of attachment heromes affertion and bare. There is a line in the growth of the emotion of attration bevom whichall revilations of character of ation, lawerer damaging. only deren and strengthen tha earline tie: hat if his line has ant already ben reached whon damarine divenories ate mate-if the at trative emoLion havenly rached the stage of ahmiration arising from



Sramal then llaree shage in the growth of emetions of attration the varidies of sum fedings maty gromped. Idmiration, the fieling of dew interst in prems, is ren-











 funtere reforene which fuets have sung and women have



















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 amoner the eravent question of the future, both to sociad reformers and to relisions tathers.

Refermatra-On the general matme of these emotions see the "generad work-" viterl mater l'sumburs. On the

 quenle.






Lave fourts of: jnctitutions of moliaval franee. is





















































































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 A. Li. Mansil.





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 Jiveral the aldres at the dedication of latemil llall. Mar.









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 the chose al the war was in command in south (ineslina. Aftor perndine a fow yours on al platation in Gorgia he
 ing the ohatrations tombination in the lanat river. Il in


 singer. llis rambest work. exeptime matributions to the jommals. Was Legembe und Bumge of lrelend: in $1 \times 28$ he luto



 and Bulluds (1sis). Labrics of Irelomed (18.)s). Metrical Talls (1sita). and averal sucereful dramative works were
 tura in (ivat liritain. lruland, and Nurth Ammrioa with
 [nis. Jievisol by ll. A. Beers.

## Lavers Leap, The: Sor C'are Incoto.

Low: a hatharus sulatantive neat in erombetion with wathor-majo as an abloreviation for an areatof low pressure. It is "undrabent do evelone. Without the popmar asseriations of viohence combertal with the latter.


 in ison at the lame of his chass. Huring his lant year in (o)ltag he attembed hoturts at (ohmonia law school, al-

 "ame a member of the firm am? of the ('hamber of ('um-

 lumbes, and was very grominent in the armazation of that


















 N.W hurk.












 Helomaturint the whole inarivenmont of Xianduata : aflor-


 18.3.



 in 18t? tithing a prominon part in the palition of that col-



 raised to the Hone of Lomls as Visemme shomrowke in


 at the junction of the Morrimate and (imome rivers: on the Boston and Je and the Ghe Colong railways: Qtimios N. W. of Buston. It deriwe a dage wateronewer from law-

 that the eity hat a world-whe reputation for it - textil.

 tries) repmeted. Thene hat a combined apital if sta. $4.5 \%$.







 phats: and had promets salued at sezo.sibush. The nest hagest industry wat the manditime of fomatry and ma-



 113. Anether impromt induatry was the mandacture if

 city has 8 national hank with combhan apital of


 7 weekly, and in monthly ferimitals. It owns the water





Iowell: villare: Kent ro., Mich. (for lewation of conaty. see map, of Michiran, wef. F-h1: at the jumetion of the
 and the Low, and hatines ralways: 14 milus Fo, uf Gamb














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R.arally ll. A. Mhat.

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Ilmamas (indatz.



















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Lawther, Jamas: pulitiofan; b. in Imels. Finglame, in

















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 is anthor.

layal Temprance lexion : an orquization of chidren formal ander the direction of the Whanasis (hatian Tem-

 there was mo bery definite phan of work; hat in that year a
 whidted into one great arms. They are organized in every Stat, and l'erritury of the I. S.. amb the work is extemding into "ther comatrivs. The L'. $\stackrel{\square}{ }$ divivion has some 200,000
 an yet pheded. 'lhe aimato to tran chiduren in temperance praciples, grombed upen sitionilic knowledge of the - Wfert of akohol, toharer, and other nareotics upon the hu-
 is a courso of stuly. Tha graduato are ormazed intostate l.winns, with full iopps af jurenile ollicers, hoding annal state combentins

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Loyafty Islands: a chain ol ikamls about 60 milus E.


 Which froms one fart ol dar dirumference of a haroon




 have a thin suil. and are mot very fertile. 'Ile. climate is mind and salnbrions: raine wor from Derember to dpril hat in the ofher monthe the dimate is dre ; fresh water can lin ohtamed almast ay where he ditering down to sem-level. The primitive race is nemito (dark Mranesim), but the olive Phlymsians have migrated to the iname in considerable manhers. The firs hamal are sumerime and make excellent ailars. The Frenda tom pessensin of the islands in 1864. liribin minimamis hate bern wathishod there for some wars and athempe he the Froch for interere with them in
 story of the Lifu M/ission (1sä3). Nare W. Harmasutos.
Loyolat lasitu's, de: femmer of the order of Jestots

 duraz be fecalm: : wan a a molle spanish family, and the pomgent of deven chidera. In his youth he served as a bate in the court of Fordinand the (atholic: afterward atorel tha military arrice, remaning till his thirtieth var, alwats bivine poof of a valomos chivatrie, and ad-
 atw of Jamphat hy the Fremela in 1521 , while fedble and athering he read a life of thrit and varions saced legenels (ammer thom frombly that of si, Wrancis flosisi, the begiming of whose history is very like that of Lesola), mid ly derrees the man of the word was transomed info the (Christian disciple. Whan semredy reobered he divided his
 Viderin Mars. Ao whom he dedieated his armor, dedaring himelf at the same time her knishtand ben retied to the
 Su machath his bery that ond day he was fumb insensible. Tran monthe later la coularkiod from barceloma for ['ales-


 the staly of the latin mammar. 'Two gats afterward, has ine citared the surn rin whenls, he prepared himedf for





 migion onder. ann of lis rampanions mot havine fin-






 befriand the in hane." Whar -tate. nure simply, that









 ami his frimal rearneel the pilerimin tatt, and with their beoks of thendeg on their whathers and hateremarion ahomt their mecks comtimed their jomenes ant dinally




 delinitive, appobation of the water of forato. Lamba was



 in brimging dew over to the 'hrivtion fath and in reform-

 feast is celebrated by limman ('andinsen fuly 31 , the ami-
 persectition in his own time from trill man whan fath he
 reform. yet peterity has nower gnextinad the simerity of his profesiens mor the parity of his lific. He whote imo small works in spaniah-The foustitution of the order of Hesus and sipirithel Exomises. Hin Lify has bede writton many times, but thone of lowsweile. Manfei, and bonhoms are specially poted. The mont clatorate Lije in Englihh is by Stewart hose (New lork. 1s!n).

## Revied by dons J. Keane.

Loyola. Martin Gabra wiezo de: vavalier: nophow of
 lotio he went to dern with the vieroy Todedo. and wat there intrustel with varions inportant comamal. buring

 eventally caphured him. After the "xerntion of the ! anea,

 he was appinted caphain-qenteral of Chili, taking jumes.ion
 the Arancanian war with vien, but his renure were bey inalequate, and he was still forther hampered by the de-

 Arancanan cometry. In Nos., 1508, while at Imprital, In whs warned of ui Jmian uprising; statime for Abisel

 Indian rising followed, mat all the Shaminh town of of the Biebio were dentroyd.

Loyson, Cuables: See Hyatisthe: 1 'hablas lanmes.



 and western part of the fopartment: the luchos pata.






 (1891) 140.525. Copital. Nembe.

Lanaba River: a river whioh riow an the ownhern
 from Greenwich. It war long thanghe that it mathe the the






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 j"pulation at $3000 \%$. 11.11 .11.


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 D. 190. 30. 1- 29


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H1"men





























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Dublin．Jowh lin：bum：in the gowemment of lathin，

 10 Warsaw，the handsmost and mon impertant in lohand． Amenge its buidinge are netabla the Churth of St．Nieholas，
 town－hall．A con－idnath trate in choth．grain，and Ima－
 ath hating one manth，The ehief manufature is wombens．



 （ity：was a rerular contributor＇the journals Dzimbit
 removed to Waraw，and han since dewoted himede exclu－ sively to literature．He wrote a momber of hamas and mosels．llis enty dranatie＂flont－，Karyry（The（areers，a


 athonton：lat the satiristic connedy Nifopprae（The Bats， 1sion mate him famous．It is hame mon the comfliet of furmal dignity and publienpinan，and wases the shan－小rose．lifis other dramatio works are moslly daracter





 1seft，shawing the influene of Frend models：Se pochy－
 Galician moblity living above its means and wasting its
 livhed escits on Mary Stuart，lom larlos．Wablastem，the
 －beare（Timen of Alhens，The Toming of the shreme），In－ mas，Wrilcu，rte．J．J．Kıás．
Lubuicants，ur Curnents［hbricunt is from lat．Iubri－

 rial－lacel to ficom the friction of the working parts of ma－
 lond is the only material in common ase．It is curefully fryared far ase ly the remosal of all eathy or other for－
 or ail． 11 is bey andapted for lubricat ion of luarings mov－ ine slowly ander rey haty presurac．Tallow alone，or mixel with flumbage on with red or white lend，is an ex－ collent lubriant under similar combitins Larl is some－ finu－aphliol in such eases．Sll of the animal and vege－




 bard ail，althourh mut cable of wibatanding and ex－
















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 of oils havinge at ennd baty with other of lan satue．I













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 Sre friction and hase Work in Machinery and Mill－rent （New Vork）．

1．H．＇luchatos．
Lnhricators［from Lat．Inhrion make kiphery，clems．





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 through which the lubricant grabluatly fints it way．With


Find． 1. hard tablaw it is andmotiano follthl alviatho foryply phate atwise the mam，whalh．



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lun
1hat p－14r




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lacats ball laghen：©．．．．Whats．















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 in $1: 30$ ande naw rewned it－liberty．It thritary then
 －namely．the fertite di－triot，athemation in pratm，grapes．


 history of huma during the Midhu Sige is int imately com－
 matw it a primipmlity for the hodit of his sister litiza，who


 tom－of the kimetom of taly．Silk wa－mamatactered here


 it insto of lama alromly hown an the Industriose wore said


 lucra，alom his mile farther up the vally of the serchio． in the midn of the mon ficturemper semery thourh mo lonser mond fryomed for madimal purposes are a favo－



Luma，Parfase：opra－inger；h．in Vimma，Austrin，
















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 The J＂Mmar religin．He fill－with funtio fire the dry atom－















 If theoth．The following hinf amalys of his bum wilf in－









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 fon．Lucollus，who in ath axtonishingly thort time ham
 to the suppert of his collegigur．Ibrew Xithrithte lanek into

 compellod the kint to sook refore with hi－mon－in－law，It granes，King of A！monta，and hrompht his commtry undar









 in the suburise of Rome wore fithed no withextronelinary

 valablile library，and was the promeras piatron of loviers．


Ju＇den．IIfasku＇u：histurian：b．at laxatalt．near liman－
 and bistory at liattingell．and was aplamitel frofuran if

 （Ista）athratod much atlation，and extreinal suma intla．
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 1mu＊）contmbersy．













 Petcraburin．Feln，fis，isit．
























 1＇リリ．（14：11）J．460．






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 （i） $164 \% 3$.








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 Batithaly，hat was conhulhen hy ill－hoalth to wise up his






 und Eivle（





 189\％）
lavimel by lulars Conetbet．













 Bavaria，on the laft bank of the lihima，＂lymsila Jamborm：
 Fimpire，ref．（s－l）；has dimet railway fommonitation with


 It is a rapidy y













Lugano，Latio of ：a boxly of water situated on the from－ tior latwornswitarlam！mil laty，and betweon lato Mag－







Lu\＆゚，lane



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Later：ןrovime of stath，borderine N．on the dlantic；
 habitats．＇Tlas anthern part is monntabums，ricla in iron



Lugo：（atital of the protimor of logen，statin；on the Niñ：Ta miln by mall S．of Cornman（see map of Sban， ref．1：－li）．It is an oble lut remularly and sulstantially bailt town，with a time cathedral of the 1 wellha contary，and colobrated sulphor shines．Thare are mannfactures of


LIE worm，or Iabworm：a pupular mabe for the worm




 pupil of lamamboda Vino．He is supposed to have visited lombe，heranse at sianta（roce in lambarly frewes of his
 Raphambesume in grace and style and blso some mono－ rhormos，whide show a kowledge of Roman stathes，of Which some are repremeter，the havooin，for instame llis mast important fresones apo at Jugano，in the Capucin －hareh，at Samomo，and the Monatstero Maggare in Milan． Nany frem whor churehos are now to be sern in the Brera （Gallary uf Jilan．IIe worked with less ense in oil，but the Matwlithen，at the Ambrosiana，the Murdonna，annl also a st． Soblif C＇arressing a Latmb，are masterpinees．Thare are many of his tamepholarts in private collections in Milan．His Motemme of the Rerlis，in the Brera．as alvo bis Merotios，in tho lomver，amb Modesty and limity，bately in the gallery

 painting．His fame was not prat in his own time，as he re－ maineal in dambandy all his life，and Vasari writos of hom


Lititpold，lwat poit，I＇ribere Chakies doseph William
 1821：marrited Apr．15，IN4．Princess Augusta，iroblachess of dhatria：was apmointed regent .1 ande 10,1886 ，on the de－ position ot the insathe King Jatwig ll．Jrince otto，the



Inkaszowioz，loo－kam－shovitch，Jozer：historian；b，at Kraplewo，Pohand，Now，so，la！e：studied at the rymmasium
 for whon han xaminel the arebises amblibarios of Warsaw．
















peckipgo na Lituip（llistnry of（＇alvinist Charelnes in Lithn






 He also wrote an histarice－statintical aneth of l＇enem，ofraz



 tory（ $1 \mathbf{1} 515$ ）．

J．J．ligat．
 thor of the third fiospel．Ile wan the only anther of lien－ tile descont wha fork part in the emmpusition of［foly Scriptare．In the Fipistle to the（＇blamians（iv．10－14）l＇atil distinguishes him，tomathr with kipuphras nall lomas．from

 rome，maintains that how was fom dufinelh．the capital of

 to the Gentiles．It has feren assmmed．thomarlamandy，that
 in whieh a cortan lincins，with whon lake mimht have
 teachers of Antioch：hat limelime amb demme mant hation written careless！ Lake（Iacas，abriblerel from Lactums）with that of I，meins （derived from（ner），sult still more so formblule from a


 ten with so murh vivilines amil freshamse that we sedm to
 is quite remarkable that in a wort of the secontl corntury， Which probahly stifl emontas sume anthontio tratitions，＂the most excellent Theophilas，＂to whan the two writings of Luke are dedichacl，is mentiomen as man livine in Anti－ och：＂Thas＂Theuphilus，the most powerful math of the city， conscerated to the worship am！under the name uf a chureh
 ＂the beloved physician．＂＇lhis expresion prowes that Lake belonged to the lettered clas of the pridile，and was pos． sessed of a certain amomat of scientific kisombelloge di i－ indeed，certain that at this eproch thero＂xicterl in the＂m－ pire a mealical sumerintemdeme quite severn． 1 suprem＂ authority，collogium archintroram，awarled the dipshan of medicine，aml examined in every eity those whas exurcined the medical att．＇The eures were＇rigorously scrutinized，an！ grave mistakes were punisheal by the losis of the right uf practicing．Of all Pand＇s companions lake was prohably the only one who was possessed of a selemifis and liturary elucation．

Some old writers maintain that lake had been a disuiple off
 sent to the places of（ialilea in orilar to proparn for his own visit（Luke x．1，seg．）：Inut the intronluotion to the formal is not in favor of this sujposition．In $i$ ．：luke ranks

 he was not an eye－witnms himatf：that it is fomihle that． in aceortance with an old supposition，the was onte of the two disciples whon ofesus accompanian io Fimaname on the lay of his resurrection．Wha of them is mathommel by name，Cleopas．Thu umanymity of the wheot maty intionte
 correspond wrll with the dramathe charator of the whole narrative，aml espurially with that followher suralay whith
 burn within us，while he talkenl with ubly the was，ant


 he says＂we，＂wa meret him for the dirat tam＂at the mase








































 the information amel the material with whiols be comperal







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 nected；from whinheiremm－tatere we mast infer［hat he has］
























thak that whth－J＂int tha tharah hav｜


























 can－s of（iont himalf．In ehate ix．and xi，uf the Fipistle
 fon！hat fon thergat fu withitraw the salvation from thatat









 of ch．i．，framata a arikine atablog to the introductions of














 difans whioh are erisen here aml whinh in ine paint re－

 in Papias．Jast abmiralala is tha mammer in which latan









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 fromes the individuat to the（＇hareh，amd from the Chureht to the econter of the wollis serent．



 Enn in le2！an himexpertition for the anmpont of the Mos－
 as a fief lamde continatad from the drath pmatesors．＇The Faroliar comditions of lif＂in the minlot of at later conquered

 The youner Ratmons，lawner．revirot an inditherent edu－ cation，aml to the emal of hin lifo，amd aftor his death，his



 check him，and it was mot matil he had fise times seten a sivion of the crucitital（＇hrist that la thried from his evil ways． From this time on（anmo 12bif）the facts of Lalles life dire known to us in the man from a hriaf antobingraplional
 Gure the Council of lionme（1311），and which has luen sev－ eral tines printod（last olition by salainger．Lulli opera，

 For nine vears la debotmd himadf foracotic practices and
 purposte．At the emd of this ifme，as a corrions document
 affairs of ordanary lift．＂thiz dormment iza petition of his


 fommatime the two dominamt idess of his life．The first
 ity thromely ath intual to their own hioher reason．in pur



 tion of a mairmal amt infallilde intellemtnal method，br
 mietht be solved．＂Othis was nu ather that the famons Ars Mafor（later itrs from ralis）whind dinll bediewd to have been rovalad do hime has tapon the Mount of lianda，to


 impemable here to pise osons a liant idea of its character． but tha surions will timd an matins of it in l＇rantls cip


























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 treatises, howeser, ate very mamoroms, thomerlathey fald into
 to do with the expanition of the: womlorfal Ar:s Al/umut. "Then we lave at grompe chaling mor* direwty with theohery proper, thotgh alwiss with ruforomee to the Art. sext

 works of a more prombar kitul: then the devationtal work-in












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 und die thiänge ofer hutulunischen bileratur (birlin,


 186\%).
A. Ji. Jar-at.


 skill on the violin: rawioml sume revelam instruetion by the
 Lomis XIb., the famons bumble de vilut-quatre. IJaviner






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 fatran of lethatand wrote peretry atml phays. Are him hise
 foin thato de louns (10.sti).


 10.3-2.
 afterward his dissipated life made him untit for obliows of trat. His tembencies wore to great hiberality in gensern-ment-greater than the intelligence and general cendition of his peaple titted them for. Gon after the establishment

 B. 1sit, whonat an heir and withent apminting at sucessor.

## Lamar Camstie: See Nithate of Silver.

 (-י" map of Norway and sweden, rof. 14-I). In 1060 it was
 ric. It has a catheltad, buitt in 1145, a miversity, fomoded



Lamd, Jomt. Joms Remonds: masician; h. in llamburg.
 tory: was ehorns-master at the Opra-homse, Bremen, (ior-

 Metrepelitan "pera-houst. Now York, 1set-85; ; diredor of
 X. ľ. 1sats; is author of soveral songs and pieces for orcheotra and pians.

 Atartumbede (llitiory of bemark and Norway at the ('lusa


 hestorie of that norinh. It combine keren inninht and narefal



 colors. The sale of some of his apmedes in Enghum led



 army to Larkmow, retuming th Enghand the following yar











 him to conser rate his hfe to the Burk uf atmi-hang hathol


 int the thanght if the wroge of the tremban on the sumth-
 anderdingly formed, with tiwe ithors, has: laion Human






 fall of 1 s1! hat tow his antire busints stack to st Lomis. Mo., that by its sale he might wive himelf the the canse
 venture marly all the prenety he had aremmated. If was at that time that the Misomiri guation "as agitating the mation, and he devond himelf to an expmition, in the newspapers of Dissouri and Dllinens, of the evilo of shatery, in the hel" of arting the impudime ealamity. Returning to St. 'Jairswille, he remomal to Mt. Pleasat, and there hegan a monthly fublientim, The lienizs of l'niversal Limancipation (Jim, 18:1), then the mily anti-shnery periodical in the 1".s. It was afterwand transferred to : Ioneshorough, Tenm, and thence (in 1504) to Baltimare, Ma., where it laemme a workly. In the lather part of 1 sis. landy visited Hati to make arramements with the Hatian Government for the settlement of such manamittel shaves as might be sont thither. In lsids be made a fedestrian tour in the Midhe and batern thate, party to inerease his subserip-tion-list, and esuctally by heturing to awaken an interest in behalf of the of a rexsed. In the winter of 1828-29 he was assualted and mearly killet? in Baltimure by one dustin Woulfolk, a shavedeider, for an editorial reproof of his conduct. In the spring of $1 \times 2 ?$ he went a second time to flaiti, taking with him a momber of slaves emancipated for that purpose. On his return he invited William Lloyd Garrison to become associate editor of The fienus, hut the ensuing spring the latter was imprisoned in the city jail for denouncing the domeste slave-trade and its abetors: and as it was fomad impracticable to contime the weekly issue of the paper, the connection was dissolved and Landy restored The Genias to its monthly form, making Washington, I. C., the nominal place of its publication, hat printing it as opportmities jresented in divers places while traveling. The next wimer he visited the Wilberfaree eolony of fugitive slaves in C'anada, and then went to 'Texas to provite a similar asylum under the Nexiem flag, renewing his visit in 1833; but he was batled liy the events that led to the annexation of Texas. la 1836 he started a weekly antislavery journal in Philulephia untited The National Enquirer. In 1837 he relinduished the charge of The Enquirer, intembing to go to one of the Western States; but previous to his leaving lhiladedphia all his papers, books, clothes, ete., leposited in one of the roms of lemeyhania Ihall, were destroyed hy the hurning of that huibling-an aet of pro-shatery incenitiarism. In the winter of $1838-39$ he removed to Lowell, La salle co., Ill., intending to publish the Genius in that lorality, hat died on the sed of the ensuing Octuber. Sice The Life Tratels, and Opinioms of Benjamin Lundy (Philaldphia, 1847). lievised by C. К゙. Abans.

Lane [from lat. lu'na, mon, named from its resemblance, in prespertive, 10 a eresemt. Se Lexa]: in spherionl germetry, the pention of at sherion surface included het ween two great smidireles. The two semicircles are the vides al the lane, and the angle of the lane is the angle between the planes of its sides. This augle may have any value betwen 1 and :\%60. In phate geometry a lune is the gortion of a phane included hatween the ares of two eircles that
 crater is famens as lating the first curvilinarat sace whase arra was exactly determinel. The ronstruction of the lune of lippo(rates is as follows: "ta a line A 1 :
 as a diamettr deseriheramencirele


 are lanes. and the sum of their armas is "gal to the area of
 are to math wher as the syares of their diameders, and [rom the risht-ageled triange A 1 ] $]$ we have $\bar{A} B^{2}=A D^{2}$


 1) El: we hate the sum of the lames equal to the trimgle.
 wher, and the triagle will lae equal to half the spuare on rither.
liovised by R. A. homars.

 with the EIbe, and at the font of in suall hall calloul the

 istice buildinge, and was an imperant member af the 11 an-











 miles distant. Orems Head is a seatitue with romarkable caverns, walled the wens. il. WI. 11 .
Lumeville, lif na rell : town of France: in the dopartment of Menthe: at the eronthance of the V'equas and the Nenthe (see map of France, ref. :3-1I); is onte of the Jarest cayaly stations of leramere; the lormar gatare of the Dukes of borraine has been tramsfomed into cavalry barracks. It is histomeally mothbe from the P'ane of Lunaville (Feb) ! , 1801), by which the Rhine hecame the frontior of Framce. Ang. 15, 18 jo, it was the bednuarterw of the ('rown Prince of l'russia. It is noted for its manfacturs of efoves and enton, and has an extensive trade in corn, wine, bramdy, and hemp, Pop. (1891) ?0, !10t.
Sung-chow: a town of Kwangi, China; on the frontiet of 'Tompuin; opened by treaty to foregon trade dunc 1, 18s9. Pops 20,000.

## Lung Fever: Sce Jexer noxia. <br> Lunglishes: See Dipxor.

 lunge]: the organs by which, in air-herathing vertebrate animals, the brood is aierated and ertain gavons bupurities are remosed from it. In the Invertehrata and fishes and the larya of Batrachat the hage ane funthmally regresented by (imbs (q. O) anf loy other anamons organs. In many fistes there is in adtition tor the cille at "wimblatder," which structurady repursents the lungs, and which, in a fere species, appars to shate in the function of the true respiratory orsas. In the perenibranchate hatrachians there are both gills and lumes. The true riphles all have saeeulated bums, and many of them hreathe by gulping down a large quantity of air lig a kim of swathwing pooess not muela like the breathinir of mammats. The deft hans of serpents is cither wating of very rudimentary. In hirds the respiratory function aljears the shared by the lining membrans of the extensive airechambers in the home. ofe. The lungs if all the Mammalia are in pitm mads like thene of man. The hmmange (pelmones. phemones) are twn. one heine phaced in each of the lateral castion of the thosras, and they are searated from cash wher he the modiastinum and tse contents. The aros of and lane extemes
 but shorter, than the beft. It ha-thro ham-ithe beft hut
 phaties, ete, entor wath lones at a puint ealled tho ham and these structures, with the whmertice forns. entitme

 covering is a rellection of the flata, ind is as serms mon-
 is embryologially dorived from the alimonary cabala and hence is a mucots membranc. "pho sulmatas" if the lunse


 of the hage are further illustatal in the artinde llasem.





 entifie mane is sfoch palanomarin. It dembe it mame




















 cance of which is fur the mont phrt athater af monje elure


 day of the festival the memburs of the two and laces of the


 forebeade of two youme men wore smeared with the freds hlonel of the vietions, which wan wigel away asain with a

 which the Lamerei. naked, ran areamb the Fatatime hill. striking women who famad thancolves in ineir gath with thonge cont from the skins of the shaurhtered vicime-a rit.


 February.
(i. I. J|:

Lupine [from lat. hapinus, lupine, doriv, of limpos,



 in cultivation for the ir hatwame papilanaterns flowers




 phowed into the gronul an a fartilizer





 mon frombaty in galliful fomate. The lamen form,











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Wи, вяя I'time





































 31
M. IV. 11.


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 grow of Vienma in 1stip the ereaten pairt of the tertury
 then which fume the prome areli of bantan.








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 1.1:1.. ©





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ritus lame thair migit mabllas on the ramirements of




 from homberiltimes, pmithory rate promed at memouthas "pache in the intivitual ur famity life. sind as

 individual:.






 was then offerpil to Mars hy the censur in futfilment of the gows mate by his prodecesol. The completion of this rite.
 tremury and the driviber of a mall inte the wall of the tempho of Sare as recond of the event, was looked upon as neremary to wive valility to the ats of the censor. From the fint that the lustrum was ferformed every five yars the word came to mean a similar periand.

## (i. L. Hexpmithsor.

lute (from O. Fre. lent ( $>$ Pr. luth) : Ital. liuto : Span.
 trank, wand, stick, lute ]: an ampient intrument consisting "f a table a buly, a notk (fire lingerimg) with frets, a head with serews for thones, and a loridge on which ran the stringe from six to twonty-for in mumber. The frets wero tomelood with the left hamb, the string with the right. It was lang a favorite ind mant in baty all pare of Europe.

Lutes [from Lat. Infore lwdimb, with moul, derive of hi two. mad. Na! whoner Eins. lute kind of clay cement] "ompuitims uned for two furpors- the one being the mak-
 hohling or convering gase or vapors, as in precesses of distillation: and tha chace the pating extermally of framile vemels that are to ler expened the high heats. For the first
 gether whe hamds. and shets of latia-rubiner. so that butEng comunations are sedum nsed. There is one high! $\mathrm{im}-$ f"itan casc. howerer, in the arts in which they are still amplowat. This is fur the lids of gas-retorts. (See Gasmantivas. In tha hamatory. in canes in which the heat th he applied is 1 inh 400 ot 500 k .. linseted meal is much Hed: with water it makes a very phatic alhesive mass; with !flyerin, instand of wather, thic mase wild not dry and arack. If powne is to be rexinath, the compontion may he applital in sume mase to the jumt, at band of eothon cloth polled atomul it, and the whine fhen buand around with I wine. Clay and entyerin make a wefal hate also. Great manhers of similar combuitions ate kmon in the haboratary. Ser the Chilted stettes Mispunatory of Wood and
 mation on this hatal.



 Fams pofecom rxamomary at Marbure and in 18.56 be-

 Luth. Kiochoncitung and the Theologiseh-Literaturblutt. is
 whminno buthor of armons and work on exeresis (a-
 inhow
II. EL. Jacons.

 that all his atromoters wemasints. Hin father whe at










Cotta family, belong to this perient. In 1.00 hamemerng the
 phileseghy and the atody of hap clawien. 'l'rut wother hationg





 immer peligions life, and, withont his fatheri- conamat, fort




 and the still further raliug of later selulatione orempaly
 was calleal by stangity, then dean of the resombly (late) fommed University of Wittenbers. to a proferaring of philosophy. In bios, after berominer barbehe in thoulogy, he was cilled to the Chiversity of Erfurt ; hot efohtom montlis later returned to Wittentery as Profesor of Theology. In liall he was sent to Rome on bubums antureted with the Aurastinian ader, and remained there for one
 of Jecturime as was the custom, on the Sheme "lhmonge, ex-
 Paul to the Romans and Gabatians. Besidec porformine hio
 order for Deisen and Thmingia, harine the superrinum of eleven convents and conductine the enstomary visitations. preachine rerularly in the eonsent at Wittmberge abd durang the disablemme of the town priont, praching a mome of sermons on the larl's l'rayer and the fern ('mmanas) ments in the town chapel. His realing brought him at this perind under the influence of surh mextieal writers as . Iolun Tanler and the author of The Girmern Theology.
lis conflict with the ecelemiastimathathities was mot self-determined. The Iominican 'fetzel, acting as the agent of Archbishop Albert of Mayonce and Mardobure. had been pusting the sabe of induligenes at dittertwis, "In the borders of saxony, where the elector fortade his rutrance. Amoug those whe confessed to him Lather frumb persons who had bought indugences. Wh. preachool against the practice and he protested to the himbors lont in wain. Then proposing a public discossion, 0.9. 31. 1515, ha mailal ninety-fise theses to the doxer of the eantle dhared in Witanberg. Their moderation, and the medias al dumas they will approve. mut surprise all who know their hintery, hefore
 as it was important. In fourtem dabs they were difluad
 also eneounterine just as violent combemation. The discussion was more publice ham Lather intombed. A-ailend not only he Tetzol, but he Priaris=, he prompty randial. growing still more conlident, and rededire further fromsthe
 gard for the pope was as yet not shatio. whon May :an. has. he wrote a humble letter of aydury, withont rombline froms his position: nor even, Mar, 3. 15 T9, when he wrate a nownel letter. The Elentor of Saxmy intorpanal his anthoty
 manding that he be fried on (iemath mil. low howh
 Luther appored before the papal lecate (oijutat, and with the Lapgis divatation, Where Lumber and bith wore
 1520 (.Jane 16) catne the exembuntiontions. ant the Darnine





 God belpane:" On hix roturn from Wiom (May bhe "an




 conference and remaimod for there date. "hathomorn th the Warthurer (salle he bexated himailf on the fram-hation


























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 everything in the cinstitntinn and worshe of the 'hureh but compary (1) soripture is to be retamed and thanfully
 of our Ilish l'riest, Jesus Christ, there exists only the spir-
 Chrise directly and without the modiation of samts, angels, or any priestly order. ( 11 ' 'lhe' ministry and the priesthood are therefore distine instithtions. The ministry belongs to the whole chareh, but its duties are to be exereised only by thes who are duly coilled and at atart to this purpese. In exerptional eases, howeser, the power inberent in any Christom coneregation maty admit of the ministry arising anew from within.
The prine ipal editions of his collected works are that of J. (i. Walch ( $1740-$ i3), 24 wols. the ed. (German), which is in proces of reprint at it. Lanis, Mo: the Erlangen (12mo), the (ierman fretion of which in 63 vols, was completed in 15:5, the the hatin portion, of which 33 vols have becon publishol, is not yet complote; the Weimar edition darge 4to), which in very (ritically wedited and is being pulliched in a luxurinus form, by the generosity of the King of l'russia. The Hest edition of Lnther's Letters is that edited by de Wette (herlin, $1 \times 25.5$ rols.), to which a sixth volume, edital by staleman, was ahled in 1850.

The hist hography of Lather is that ly Julius Kinstin
 A briofor and more jopmar Life ly the same author, profusely illustratet, was published in 1883. Two translations int, English ajpeated the same year, , me in homdon that
 phia. Soe alo Krantis ('onse motive Reformution and its Thrology. and wh. vi. uf Dr. Schat's Mistory of the Christien church, thoth for hographical data and also for the literature of the sabjece. Prof. Kizatlin has written an excellent and thorough treatise on Jather's theology eq vols.,
 torn on the same subject (wol, i., Brharen, 18se: win. ii..
 have been writhon by kistlin, Weriser: Lathardt, Maneke berg, and bieckhofl. The lather jabilew in the U. S. .s. precially callell forth the elogutat wation of Dr. J. A. Sicis, Fublished in bow fomm, Luther und the Reformution (I'hila-


H. F. . lacons.

Intheranism and the Lutheran 'horeh: The result of the union of the cemervative with the progreave in reformation, an distan from revolation, was the Latherm
 ism. Lutheranion io the systom of filh unt hto taturit in



 its lite, Sial the Marquis of Bramenture when ridienle.




 1- the only sense in which athy Lutheran harato the ntame.

 Latheration, as over againt the thore of lame, bulong

 "in Calvinitice lurtions of leotestantism has been made by busth frient antil fore.
'l'hey mas' lee stated amp numburod thas:

1. "1he material principle ur fommateon of the matter of Duthran l'ratentatism is the saviner truth of (horistimity as it lias econtered in the dowtrine of justifiention for ('hrist's sake alune (propter.
(lurch).
2. The format primejpde, Hat which proseribes the form in : terordance with whid the material is shajed, is the sole authority of llolys.ripture as the rule of fabili and guide of lifo.
3. 'The Lutheran mothon of wang the rube of fath is histurical. The pure chureh eatholic, or ('hristian Charelh, is the living witness of the truth.
4. The doedrines of (iond's word, the means of establishing which lloly Scripture eontains within itself, and of which the chure ${ }^{2}$ is witness. shape the individual assurame of faith amd the confossion of the (hareh, and originate and chevop ber polity, worship. and practionl life.
5. The lrotestantism of the laformed or Calvinistic Charehes, on the other hand, has laid as its fumdamental doctrinc the absohate and sole primary causality of God. In it there is bat one real canse of whatsoever comes to pass, the forcomination of Goh. Election is therefore the material principha. "The Latheran doctrine" says Selmeider, "comes, through the Gosjel, to trod-the Reformed, through God to the (rospel."
6. While ('ulvinistic Protestantism holds with the Iutheran Church that lloly seripture is nomative, it has yet isolated the seriptures from the historic development of the Church, and subjected its interpretation far more to an undefmed subjectivism.
7. "In Reformed Protestantinn the format prineiple is eontrolling-in Lutheranism, the material. In the Reformed system scripture is regarded more as the exclusive source of dintrine-in the Lutheran system, as the norm of the doctrine, which grows out of the analogy of faith. In consequence of this, a pure tradition possesses in Lutheranism a greater validity Goebel (Reformed), Die relig. Eigenthämlichkeit, $153 \pi$; Nitzsch (Consensus), Praht. Theolog., 1847, i., s it, seq; Heppe (Melanchthonian lieformed), in Stulien in. Kritiken, 1853, 3.
S. "Latheran l'rotestantism is the antithesis to the $\mathrm{J}_{\mathrm{n}}$ daism of the Roman Church, and therely the doctrine obtained a Gosticizing character; the loformed is the antithesis to the piganism of the Romish Chareh, and thus the doetrine received a Jmbaizing ethical character." Herzog (Reformed).
8. "Reformed Protestantism is the protestation against all cleifieation of the crature. Hence it amphasizes the absolntaness of Gul and the exclusiventes of Ilis will-its material principh-with which enheres the exelusive emHhasizing of Scripture as the pasitive normal principle." Gehwoing (Medinting lieformed), Gitablenslehre, 184.4.
9. " The materia! principle of \%wingh is the glory of Gubl: his formal principle is the seripture, vet in such vense that he explains that the intemal word is independent of the extermal, and denios all creaturely eansality on the mat of the ereatare in sulvation," Dorner (Alediating Lutheran), I'rinzip., 1811 ; Mistory of Irotestant 'Theology, 1867.
10. "The Reformed system berins at the top, and goes downward: the Latheran berins below, and ascends."
The conter of in ravity in the one was the objective, in the other the subjective. . . ('alvinism is the proper l'rotestant connterpart of catholicism. 'lhe whole system of the depemanece of the individnat on a powar which alsolately detrombers him in his willing and denime the system which is setuphey catholioism in its doctrine of the Chureh, is loomd un ly (ealsinism in its aboblute derores. In the one werythinir saviner and salutary lios in the charelo; in the other, it liss in the dervere The Lutheran sysum, with its faith repmang on the histurieal fact of the redemption, hohls the monathetwern (abluismand lomanism-betwern the transwoulant idmasm of the une, the extermal realism of the

11. "N Wh these diverse presontations." says Lathardt, " hatere their hasis the comamon supposition that the ditteranee is mot merely an extermal one is not one which turns morely wa partioblar doptrimes-as, fur esample, the bord's sumpr-hint forvalos the systems and is a ditforence in prineiphe. 'l'he esoential fart of the difference hinges upon





 as the reanlt of the divine ogeration." Hmallo-hanern. /her
 the I'rae formulating of the Dintinction unal l'uion of the







 Kahais. Irincipien. (L8tio); Kahnis, (Vristenthum u. Lutherlhum (18il).
 The earlices anmals of the Jatheran (latreh are interwosian with the fursumal and offeial history of Juther. His ius termal contliots, his theses, the metings with (ajotan amb Niltitz, the Jeipzir tiopmetation, the attraction of Melamelnthon into his mighty orbit, his era of storm and dressure (1520-21), the bull, the efforts of charles b. at repronsion, the Diet of Wrarms, the hiding at the Warthurg, the outbreak of raliablism at Wjtleuburg umber Katlstall (1.jes25), the Jessant war and Amabiptist sedition (15039), the controversies with Henry Vill. aml Erasmus (15:3-2d)all had within them potencies for the future of the ('hurch, on which lathar's name, in the face of his protest, was to be fixed. 'Jhe latheran Reformation showed its unfolding strength in the empire at the Diet of Nuremberir (1522-2:3);
 the second l) iet of Nuremberg (Jan. 14. 1.524) ; at the eonvention of Ratishon ( 1.524 ), walled to resist it: in the growing decision of the evancelical states ( $15: 24$ ); in the Turgan
 to use the right, suctessfully clitimed at the biet of sjures, to regulate ectesiastical maters in their own territaries. In the years following ( $1526-29 y$ a mumber of the Jutheran state churches begnn to be established and organized. J'lertoral Saxony, by Jather's advices, beran with a thorough visitation of the charches. The chareh comstitation abal lather's two caterhisms (1.529), whinh grow out of this visitation, became prades in the organization and trabning of other state charches. The first marlyrs were two yomag Augustinian monts of Antwerp (1523), whose memory is kept green by Luther's hyma.

Garly becheshastical Confluts.-The Vuformation in German Switzerland, under the leadership of /wingli, has] been alvanoing with many elaments of gateric atliaty with the work of Lather, and with no few markis of suemife diversity from it. It was mot the purely pervomal peraliarithes of the two lealers. but the origin and inturnal tembencies of their systems, which led to the satemmental enntro-
 per is one which depends upon methons of inteppratation with whose vadidyty the whate dintinetively Jatharan sys. tem, and inderal the entire biblioal ahurdily sutam, stands.
 hoped at the biat of sjures ( 1529 ) to retatin what they hat bost thee years before. The biter anger whix hat been
 their fears by the rapid progeres of the litformatum, the stimulation of their louse by the improved peditionl frome fects of the empator-whind he hareny awed to the latherans, to whom he was athot th show himself so untreatofal-







 FESTON.






















 [rimes might have liromght on a hilanly war had but tho





 sootitle


 Jenry was recoived with jubilation, and the Jeformation swett all before it. 'lhe Mareh of Mrambeaborg and as -
 in 1.539.
 betwen the condlieting partioe hast not yot vmishat. Many colloguins were hedd (thorms dito, latiolnat lishl). but they served anly to shaw mote charly the invincible
 peats of the latheran watco wate very hrilliant (lisis), hut the gralty ghasions and folltos of antar of the princes were premring the way for their own haniliation and for dowlly inguries fothe canse of truth, lathr that lowaring of the


 emperor was rarmestly desirons of a laformation in sume infurtant partionlars, but was dotaramated that it slanlal heo


 which womld have bectample powertaraw han wan liviolat.











































 of lanheraniom on the wher. The Tatheran liefermation


 the mishle of the cemtiry the lants of the lation enat and Comrlamb. Livenia, and folhmia were embared in the ereat





 по







(ourkell Phats.—ln har ecelesiastinal rontitution the aim of the latheran chard was to avoid the hierarehical
 palal hertine of the stathe wher the chureh. The fenmer,

 always so hathy and in varims wass the pulitial compli-






 Hamp. Der E'pixinmet der dentachen liviormation (1'ramk-fort-on-the-Main, ( 4 ( $\%$ ).
 it the ' 'hureh were meant torest the wathts thath of the
 rlamend for the chareh in all the furdy haman meghations

 esombal mity was that of fath, wit of forms: but the spirit of her fath pervaloul all her foms. A thaturg
 hitarial growth of the thareh were texamed. The exprosise armancot- of the altar and the inmome wates dear to the pephe wepe retainel. 'The lemish perversion of the masc, all rites that tandht or insimaterl matomd dete-





 Hollows. bifrer and wathary hallowiol hovir sift- for the









 Wather, atul wher-

11:



 palatione it ywhe binart to heart. Among the gratest


 the later lalf wo have limewald, d, bata: sumecker, d.




 (Histury of llyms and i hareh songe equerally in the Exan-
 Ciermen IIymus fram Lulher to Il ronum (1stl); From the most - theiont Times to the Brgimuing of lhe Seventeenth Century (1862. s.q.)
 vival of the Ambrosian charal over arainet the priestly Gregorian chant. It was ehorad. for the people and the choir hambed into cone in this noble form of seng. Among the comphsers of this era are luther and his familiar fricmets than and Walter. Eiccard (1). 1611) did much for chureh musie.

Practical. Safe.-The Clifistian life was one of humble, joyons assurane. The elerey were marked by devotion to the pastoma work, and lo fidelity in the palpit and in the religions instraction of the yomes. Withma a severe Chureh discipline they trained tha jeople in the fear of (iod, in persomal homer. ind in the demestic ame civil virtues."In the adminis mation of Chareh dise jpline the Batheran Church is beyond dispute very murd hehind the Reformed; on the other hant, the moral life in the Jutheran Chureh has a character of greater frectom: of more heart and sonl. resting more on internal motives." (Baur.) "That there were painful exections is not only the nectesary general result of the common infirmitios of finman nature hut is conneeted with this fixed law, that the times following great struggles, warfare, and change, even of the minst hallowed character, are times of reaction and relasation. The immediate seguence of a successful war for trath and virtue is a revival of the fotcone of many elements of falselowel and vice."

Themberal sictexpe. The mature of the times gave grat promineme to pulemic theobys. Whatever part of thookny was taken up was handlet with sperint reference to it a wailablenes as a mans of defonse or colargement of the restored truth. The phowshares were beaten intoswords. Luther, Metamehthon, Flacins, Brentias, (Chematz, and the eroworkers in the Magetherg enturies are still buforgetter names. The rentors of thendgial culture were the



 cont mplated a general remosal of the Latheran ('hurch from its lirst foumhations. (ryptot (alvinism was coneerned manly with the satramental doctrines. It was really further from what is mow ronimeral as by prominemee (alvinion than lathemaism iteif hat been. It was mionism, deriving its special fratures from the times. Its designs

 by their civil ruler- 10 the l'ulsinistie communion.
 1. In wort ansed (1604), the rathom of hiple (1602), the want (hat mot the peple) of the electoral hane of Brandenhome (16i:3), hecame tialvinistie. Various attempts at union
 whinis. 'The ardur for union was se great that its reprosentatives drowe l'an (iarhardt and athers from their floeks inte prwerty and exile for declining to trat the distinctive fath of the latheran chareh is a thing indifterent.
$\therefore$ The pril of bere is the pril of stapmation. The Latheme "hareh had mutereme the when of a war of per lomise; she was fo malergut the trial of a comparative inter-



 the in many of then the intrres was centimal to theolo Lians. The controwers un sumeriom oriximated in the
 arm a-s,
 - ill treasured Ghasine, l'fidifer, the shmidts (Erasmus
 Hambins, and Masatu-






5. Tha efolury was rich in hama-n ritere Thoun of the





 $16 i 3$.


 That his was not the absalutely theressary ong growth of the pribeiples of the great lembers in the piatione manement is shown by the fat that ont of Halle there alow wat forth fores into the chareh the hemetienter of which in heyond ath dispute. 'There arose a menation of buthomatibantan fions as the pietists, as orthomex as their apmenents- whan neither arrayed piety aganst onthodoxy mar orthodoxy grainst piety: hat showed by pon and life that true pity is
 thongh not in equal derges. may he mathed lholhazius, Starck, Buddem, ('yprian, I. C'. Wolf, Weisman, Devling,


 Carjes.
 folity had chamed at first to he simply a menescity. This
 1645). It was suphanted by the territorial swatem (llomasits and Bähmer, beriming of the eightemth century) A third system, the cullegial, was the butgrowth of simeners views, and fomm an athe exponemt in lefte (17at). (Sbe


 fassunt (1)6i2).
3. Worship.-The hymo-writera of this era Hun the inHacnee of the spirit of spaner in the carast pioty whan in their strength, and in the indivilualion which is the ir werthness. 'The enty hymns were hymber form to sime tor get ber-the batir liymus were hymus to be sump be man in separateness and sometimes of the surt that then ant but
 the masie of the church. This Rendener was met hy lohn Selust tan lach, who in many of tho highes attribites of his art waw "the gratuse mater of all timu". the lawer and the gloritier of the andent choral. Handel (1) $18: 99$ gase his ripest yems to oratorin, and in his Masem remelhel by the inspiration of mosice a heipht Alifeni hat fabial to athaia in Plermise R'guined.
4. Missions. - The now life of the purer pintiom -hownold








 Greenlemd. Iramb. from the basiab (1, anden, 1; in: Wie











 charged he lame with giving nutur withat on haman ras-






















 arature, thongh in areming athmy shlli rationali-m on the











 hearts of the sepmate communion- were drawn a- ar to exth other.
 of tationalism wery satred intrest dorlinal. The pulpit


 the theater, for whirh the masie of the time was luether








 athe irrolivion.



































 of lim-artiolt.









4. Inatimetive loutheration willin amel without the











 browelt the hymas, the wasio (the chotal has lowe the palme






6. "Fhe theoloegly of the nimpletath century mald only
 impresion mi latheran life amd thment. The grambenr of the wildent pervorions of thin thendory and the ruins of its

 Iatheran thenlory, affer the storm al war had swept orer it, stamel like "l'ahlinar in the wilhorness. Its ruthless fores

 stry-they conld only diamantle what was tom mandie to be iswothown. 'The Protestant thmory of dormany is repremated (1) in tho ebler and in the bistoricoreritimif ra-






 Lutherens The enlogions of the ('onfossions. 'The patriareb
























tha embaliment of the somb of har thetrine in a sount



Jometient Life.-W"ith tha ravivine doxetrimal life came
 minaions are so numaroun that that manes would till phyeno
 wirls at luerlin 1sis, and has heren the father of a wreat man-






 lathoran chatator (lxibit. It tramsfored its seminary in

 of the Liatheran Chureh in linlas. All the Lutherm lamls




 charelus. Thu purnly lucal history and statisties of the


 Bremen, Branswiek, (arinthan (aminda, Darmatadt, Den-

 lonhare, Norway, Olemburg, Padand, Drusia, Russia, Sax-
 phalia. Wiartemberes. In all these the Iatheran (hureh has a hastarical record. lour confesions, see the article ('osionb, bosk of, athl the eveds there commerated. For

 Sintretiom, sinemiom, ete, see alno the art icles Iolemas, l'romestaxtisy, and leformation.

Revised by II. E. Jacobs.
Lutheran Church in the Enited states: The Era of Brginmings.-The earliest Latherans in America came from lloiland, and wire among the first setthers of New Amsturlam. Their worship was at first in private houses, aml their moneonformity with the Culvinistic religion of the large majority of their eonntrymen subjected them to severe pranlites. I. E. Giatwater, thair tirst pastur. Was promptly sent back by the city anthorities in 16at, to Holland. 'They ohtaned roligious fredom only with the eapture of the eity by the Enclish in left. They hat eongregations along the limdson amb in New dersey, where sume of their deseendants are still foumb in the longlinh latheran churches. There

sitedish Intheruns followed in lij3-3h, in connection with the swodish sottlement out the Jelaware. Torkilhas
 beran misnion work amober the North American Indians, and onaskat lather's (atechion into the Delaware langrango. Ilis hams rambled William Penn, in after yenrs, to catry ont his pacifiepaliey "The first latheran ehureh in lembislunaia was built in 16.16 . For a century and three quartar the six swalioh Latheran enngregations on the Debaware wote served by thirty-five favors, the last of whom Tied in 1s:31. As the Swodish wis rephamb by the English
 (hameh. "lobe most prominent of thene churehes is Ghorin
 minerton, Ibel., built in $16: 9$. There of the swodish pastors






 order tw formore pastors. "lhe rexult was the somding in
 friately calbed tha patriard of the latherats Charde in





Era of Synodical Organization．Muhhonherg＇s arrival was followed by ancerosion of fathfol matamere from Halle（Bramahity，Kiurtz，Schana，Hambinah，Hartwis，
 tivity among the seatered charehes．In attemphat hem


 bat it hat failad to herome a proment organamion．Tha

 and adjacent States，was orgaizel in Philathphato Ius．




 15：33，to the Rocky Mommin syon＂ith 11 ministers ant

 Church in the L＇S．It originated in a mabmy of Saman


 vout pastors and followers，whosinerely heliwed that therg were following a Divitu all in henving lacir ald home fir
 there was no hesitat inn in exommanicating and retomo ing
 was next regurbed as their lealder，aml，with womberful ability as preacher，thowgian，author，Nobater，and chamb
 of development until his death in l－s．The symed is di－

 1818，as the result of mission work be the synul of bemn－
 States，from Wathingtom to Suth Curolina．The German


 estrangement had oevored between haine and the Miswari Syot．The thre Norwerian yumbls in the Weat have to－
 municants．The Sirwagan emigration to the［．S ，began
 for years was elosely comment with the（ierman Synal of Missouri，their stafents haviner hern whation at the semi－ nary of the later swool．The Jarget of the Sirwegian bodies is the recently formal Vated Norwerian church． the result of a union of three symons．It has ite ember at Minneapolis，Minn．．and numbers very urarly 100，006 com－ manicants．Swentinh immigration becran atnot 1－4．5．The Swedes first helonged to an English Symal（Northern Jni－ nois．）．Afterward，with Norwergims and lathes，they formed
 for the nationalitiea to be sepmate，and the Norwerians and Bunes withlrew．The Swolish Aurumatasmond，with it
 country，and bumbers 350 ministers， 719 congrequthons，and
 and Iedandors have theor own syowls．The lat named have over $\mathbf{7} .000$ mombers in Northl hakita and Manifota．

Efforts at feneral Organization．－Mont of these armats have united in general organizations．If thene the ohlost is the General symod．formed by the effors of the Min－

 strengh is manly in the Mithle 大tanco．Ha monersations

 Springfieh，6．，and（＇hicaro，III．Wimptam）．It actopis the


 comminicant－－i．ce almont wherighta of the whate mantur of latherans in Imariea．



 Its congregations are alano equaly divatel ammán the






















 tion with the exompon－promital within the wher－ 3 math





 memberaip，in the comatry．
 the harge stank of liwari and Wivernath，wht the－mall




 stame the withatral from the conformer if the obint














 ＂ral symel amp（on－

 man luat of whertal：It the lat mewting of the joint



 －いいいい。








 ural Simal



jawnt to that of that 1atherts

LTanta，i－ITM－























 gramiar．and dilionsty followed the（humeh lear，as his








 as it is well known that in parts of themany（t．g．Wärtem beres，from whith many of the latherans in the $\mathrm{l}^{\circ}$ ．A．come


The followiner tathe exhibits the growth of the latheran Church in Nurth Americat


Historime sweres－The chiof sumeres for the rarly his－








 Granhone rif st．lomiv，of whinh the first volme appeared
















 areminn（だ）











 ： 11.0 （14）．

 ＇insalieq．Vincenza l．niti，he lowan mat！tu write，though








 6．1n．s．
d．li．Marsil．
lattringhansen，lomiting－how－zen：tomn uf lihenish




IAtuatuian Indians：a family of North American lno－ fats，wo bamed from the bit riker or Ablomawi word lutu－
 or＇lule Lake．There are hat twatribes in this family－t the
 and the Muloc Indians ar Monlokni，Matakni maklake．

 fornia lomamary，lat klamath lake lambans upon upar Klamath lakt amd in suragus river valley．the Jodoes in the same valley on las river and the lakessonth of it．Some
 to the landan lerritory．＂lobey are a heathy，warlike mation of monmanneres who in former times hed in terror severnl of the e ciramjacent trilues．The kilamath lake lmanas are tabler and of lighter complexion than the Nothes．The mone infortant event in their history is the Audere war
 their cleftat．Ineludimg the 140 suake Indians upen the klamath reservation，the whole fopulation amomats to
 sclect．The Klamath Indians of bouthuestern（Oregon（2） pats．quato．W゙ashington）．

A．S．Gatremet．
liitzen．liat sen：small town of l＇mssia：about 10 mikes
 hatters whith were fonght in its vicinity see map，of（ier－
 king（intawas diduphes fall here in a hatle with Wallen－ stein，the general uf the imprexial army the swedes were




 Nimn．（for lokatinn of cominty．sue map of Dinnesuta，ref． 11－1）：（on the liouk river，and the＇hii．，N．l＇．Dinn．and








## 




 ：27，10：


 a metrieful－flecampo．In the wate of the l＇rembe he sided

























 ceased the victomies of danas XIS









 bark．and timber＂xpment．I＇his lerritary lormond origi－ mally a duchy which alpormately holomex lo linernaly




























 abruptly 200 ted from the ralley in the Morlta while the

 markahle both for ita mathorl bustaty and foed if military














 l＇rince fremeriels of liaden．










































































































 and defentep of the litertio of the Galliona 'hared.

Laz. Ia, Gumagiato, Mexion: sier La La\%.
Lazant, lon-zin', of Lacon: the largen of the lhilippine





 and Ientractive; the oity uf Manila was marly destroged by

 X. tus. The mit is of excerdine ferility, and the climate







 tinaone eroge whbout dithealy and in great athatance.

 reared. [hmasats, ducke, and hrillimaty coloned himds






 consiste partly of Serritos, who live as manase in the

 ishand. Around them are the "Indios" or lathonsime (the
 liss sum form the bilk of the promation. Aromat them on



 to Spain. Many Ghame have settled how hat compara-





liariond ly Mask W. Hamborapos.














 hisurim of his pende, hrimging tol ligh the forgotem epi-









 the Zoher, wad the Alltiguity of the lomel-zmints and Arcents of the lible ( 1 a?) and a work on the Aramaie version of Onkelon (1s:0). Sice (iritz, Mistory of the Jeses, wol, xi.

## hewised by (. H. Tor.



 Giuden Ihays (1885); himight Erowt (185i) ; dutobiography of at Studer (1NSO): Demich Ithuthen. Norelist (1889): i Hordy Norsemen (18s!); Doren' (1594).
 woll + ăveperos. man]: a kind of mathess in which the par tiont fancion lat he is a wolt. 'The ohd and very widesprad buliof in the exi-trace of man-wolses pasesed of the devil has in many instances fod deluded persons to faney themselves thas pussonal; and in not a fow instances this faney
 cimmilals gome apon all fours, liviner in the forests, and fowling like wolves. In 1600 humbeds of perple in the Jama were wecuted for lycuntheng. Likeswe persons may imatine homshers dogs, and ore abut sharling at every pamit. In some reses they bark and froh at the montli, man simmate rabises in their antims. This spurious hydro-
 fum of mental perversion. Rewind ly Whana Pemper.

Lyca'on [ = Gr. Auкáwd, cl. גúкos, whlf]: in Greek mathology (1) a King of Amala, whon lifty sums were persmifiations of Treadian cilies, and surpaseal the rest of mankind in insuldee and impide. In order to test then Zens asmuned the gath of a beggai and necepted from then an invitation tollimmer, at which, on the surgetion of Manalus, they server up to him, ahong with the siceed offernge, the catrails of almy murdered for the purpae (the story joints
 (ient times). \%us detected the rime amot slew Lyaton
 (iaba (barth) saved by sirizing the uplifted hand of \%ens. Nytinus becane King of Aradia, thourh the rengence of haven still pursued him, for it was in bis reign that the fown of Deacalion wis sent to de vastate the world. (2) The father of lamarus, who led the forees of Zelon to the supputt of the Tromans agains the Goreks. (3) A som of Prian and Lanthoe, half-throther of llector. De was shain by Achalhッ. J. I. S. Sterkett.
Lycao'nia (in Gr. Aukaov(a) : a province of Asia Minor. situated hetwem Gialatia, ('applomia, C'ilicin, Disidia, and Ploygis. Its Lnmmatios chansed often, acomang to the fortian of war or the capree of the lemans, and it was not
 In Byantian times it was inelated in the Amatie 'lheme. It atiew wat hecame the eenter of the sedoluk empire. Its primajal lown was Jominm (naw Kmiah). Other imporlant thwns ware heyra (hear haten somi), Derbe (at (aü-

 plain whes mil is impregraten with sall, hat supports vast



1. R. S. sterbert.

 the wulf-hitum, 小ris, of tikos, walf. See Wompl: the


 Arianta. Was promillal to make and of the layeman as a


nas: hence his philomphy was rallend firiputher walking

 tain of leanels. It was survmondol by a erow of loffy
 struction law the nable of lyeerna (lyon).


 the commonest puries of which is the manemtio (he gi-









 is too emmom in what-tidds, the blach seeds bexing ingurions to the quality of the flome.
 Minar of small extent. Jying on the Meflemranall, bat weall

 Phrecta, Pamplisia, l'ijelia, and 'aria; the thiof rivere

 missus. The most anci"at name of the combery acentine to Haroblus, wax Nilyas, the inhabitants luyne of two

 and gengraphers. It was a fatorite ration with Homer.
 the plate of homer anoure the Trajna allies. Spaloo was often called leycian dpallo. form his tample at latara, second in renown why that at Dodphi, and rectardend by some as the phace of his birth. The Folvmi. domblow this earliest inhabitants, and of sumitio stork. wore entument by the Tremilat, who are sall to have come from ('rot atal

 century $13 . \therefore$. It is to lue woted that the only mantion of writing found in the llomerice permo is in conination with the Lacian lesend of Bellerophon. The lycians were cont queral by Iharparac, the warabl of (eyras, notwithamiing the heroie and memorathe recistane of the inhathitants of Xanthus, whon burned themselses with their wires. slaves. and treasures in their citalel. Phey thok part in the rawolt
 of Persia, and furnished difty ships to Xerses for his invit sion of Greme. Alexamer the (irwat sublem the combery almost at the ont-et of his $A$ inatie eareer: it was afterwart attached to the syrian empres and wa given to the liho dians by the conguring lamans. Som aftorwarl it laeame ind pendent as a Faphblican confederation of witio. but altimately became a Ruman province, with Myra as the eapital. In the great civil war on the death if Caratr.



 oblivion, be traveler hand explorend it, and the site of its celelrated eities were monown, when in $1 \times 34$ and $1-10$ it was visitend by Mr. afterward sir ('harla-a Followso who fond there vast ruins of tomples. foptrewes and thmin.

















































I. It




Lye'ophoron (in (ir. Aukópav): ©rammarian and junt: 1.







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 sent. The rerebpal hemisheres are anally withont fods and leare the cerchellam, olfactory fone aind part of the optie bubes expmed. This chase inchate the Monotrones and Maropials. 'The tem is contranted with liwnomphala, Gyrumephata, and Areluemphata.

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 tained great pombarity in his own times. They are mown




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 Jan. 24, 14!11.



















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1．g man．Tam，（1）













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（i．A．Piersol．

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Hombert II．sintiz．
Lymeh，Pature Whson．D．I）：bixhop；b，at Cheraw， $\therefore$（ ${ }^{\circ}$ ．，Mar．10，1sta ；studied theology in the Roman（atho－ lie Sminary at charleston and in the collage of the Jro－ ［agamla at lame；was ordamal frime in 1sto；beome mincipal of the mhagite institute at Charlastan，vicar－ general of the dievere in 1stu）and bishop of Charleston in
 dral of ki．Nichach：foundod an Crsuline ronvent，an of han asylom．and many shlomls．Some of these estab－ lishmats having heon deatroved during the civil war，he chindly devotw himself to the ir restaration，for which pur－ pase be mate extensive tome throngh the Northern siates． prambig and colletmer funts．De wrote sme theological




Lymeh．Thomas．dr．：onde wf the signers of the Derlara－ tion of Imbumbune；b in lrinee（imere parish，s．C．， Aug．5，1ata；was edncated at litun and Cambridge．Eng－

 the frovinutal trops；was sent in 176 to fongress to suc－ cwed his father，whon died in that yadr．hat，his own heath





 and the Norfolle and Wem，railways： 14 T milas lit he No at lioblmeme．It is ithated on the sides of a hill rising abs－



































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 Lipten．











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 ：315 miles by rail $\therefore$ ．S．uf Paris（see map of France，ruf． （j－ll）．It comsists of a cembat part，covering a promenda furned hy the 1 wo diver，and a mombre of sumaths sont－ there over the hills on lar right lamk of the satne and on the left bank of tha Rhame．It is tha capital of the depart－ ment of lihone the hembuarters of the sernth military


 ant！the sama are surprisinary beantiful：they are planted with masuiferon trees and limed withergant houses．Twelve
 tors of the rifs and seroral of the many mblie squates


 the right hatak of the fintme．Whate stands the churel of Notro binne he lomrviens，a mont matrnilicent riow is pre－
 to the other．Cher parts of 1 he city contain mothing but narrow，comeked strelk．linced with tall erlomy houses，and
 hablinge the mast remarkable are the lloted de Ville，one of the mon intersting aml heamiful buidings of its lind
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J. yr. Mral
 Hentere. F'. A. Iteas.




















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F. A. 1.4か













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 Wordswoth-ashitht romantice ferling to the full in the

 tives too, far lese evident in any of the earlier promato. The
 ture on chatacturistic of Whathorth, and a grawing -ame of phathophice insight which give this fuldenta far mone valicl elam to the term metaphyieal than in pranementhyther fion so termed ly Jr, Johnsen. 'Tlow heo single mame for the
 mane philosophic. 'In -um n!e we have sain that in foum
 tameons, then articulate, than romemas, fimally phitomathe.
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B. L. Midircleeve.

 AH: the dirat. ath racime Thrate on the division of the






 king of the diuti. Afor the matuer of his son Agathocles.


 killen!
liviond he J. li. S. Sternetr.
Lavipepus (in (ir. Aúgatos) : stathary : oriqinally a copporsmith of susom, who ly his matule stuly of the human form ant of the ratme of l'alerlitus became one of the mont redurated atiot. lis aim wac to make his stathes



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I. I. . . sumhet.

























Lysons Simpri. F.s. A.: antiquary: h. at humartun.






 plates) and the Miswry and Autupition of IMomshire (3


 records in the Thwer 1vas, and vice-preidhen of the society


## Lyssa : Se llymophobla.

Lys'tra (in (ir. tà Aúarpal: an ancient dity of Asia Minor;
 in the lets of the - tpothes it is placed in Lyenonia. It belomes naturally either to lamia or Lyeania, whose conlines rabind greatly at different eporths. It was the native place of 'rimethe, ihe scene of l'aul's miracte of healing a lame mam. of the attemped worship of l'anl and Barmatasas as Iupiter gnd Dicerury and of the stoning of St. Paul (Acts xiv. The sit, of Lastra, which was haced by modern tracelare at different lualitios. has heen fixed definitely by the writer of this article at \%ohera, a short distance above the village of khatün surai. The site was dentilied by means of the following Latin inscription: Divam Aug(nstum)
 dicorionmm) on a pedestal upon which once stond a statue of the Emper Ansustus. The pedemal is still in situ, but the eity has entirely disappared. Lysmas warned into a colony by the Fomans, who gave it the composite name sen in the latin inseriptim quoted above, and on coins of Lystra. forr of which are in cxistence. se sterrett, Holfe E.rpetition to A sia Minor (Boston, 18ss), ['14? ff.

## J. R. S. Sterrett.

Lyte. Mexm Fravets: hymn-writer: b. at Ednam, near Kikn, Se, limul. Iume 1, 1atis; was educatel at Trinity Col-
 of Lower Brixhm, Deren, in 1se3. 1) at Nice, Nor. 20, 1sti. 11 p pablishod tibles Illustration of the Lord's Prager

 :mone them the farmite. Abide with mer fast falls the

lyt'tellon. EuwakD. D. C. i... Paron: jurist: b. at



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 forts．Wh the death of his father ins lial he－momendon to







 ／I．（t vole．）a work upat which he had bath＂ngazed mare



 Correspondence of Lord Laglelton（1－15）．

Lyttelton．Thons．Lorl ：som of thenree the firat haren
 routh；at the age of sixtern wan revarled alment an a pimb－
 in Ehigland：herane disupated and dissolute in hishatits：
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 of thonght，elerance of hatione．and for the fome and juwer of his stuechas．His style tome of politieal monti－ ments，and other puints of condibare have led to the hepotherse conteratued by mang．hat he wat the amtore of the Lefters of henikes．A strons antide shtaining lhis
 A very importat fact．howerer，in supart of the hyperthe－ sis wais but presenten with its dow fore in that articto．It
－Was that darine the life of hamd bethelton he waz vent ant of his seat in the commons by the fory alminintation atary
 letter to The loblie Adeertiser．In in 1 a：a．


 Barina：see bower．
 and statesman：eldest son of the chinnot mednt：ha in
























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Nthe thirteenth better of the Vagrinh al jhates.

Form.-The form is derised through the latin alphatal from the tireck, where it was M We Wermerale M, the law heing samentally the lhanian form. With the
 simm $M$ and the frenral abloption of sigme
 necewar? for dierrmination.
 ory of the next name, ma, reflaced the inheritel Phomidian
 revemblame of the fotter to the riphles of water. The





 word affer a hart rowel, summer, hammer.


 Akr. mitur-: smile: Aler. smi-: man may reprevit fm as



 tmbers.

 sump. Alo, M.A. ur A. M., Mantur if Arts: A. M. cente

 Abskidathos.
bina. he Wherlar.
Man: Berghiandaty. Som Mat.
 SAmatz (q. ©.

Mans, Hermisx, M. I. : sureron: ha in stargard, Pomer-
 1-tilam of Brwan in wish, sraduatines from the lather in





 of Wïrzinere. Jle was one of the mast primar twanders in



 gischen hlinik in freiturg; and he wa- the thathe of the


$\therefore$ 1. ABystrose.















the word has heen general wes sines Laly Charhon Ghest folblishel madre this title lere transiation if the tales in the
 Leel burk uf hertest (The Mhbinoyion from the Llyfr ('och
 trandition: reprint with tram-latime only. lamdon, (sid). The worl ha* sen bern adepten inte manern Welsh in this
 tabco for chidren. but the budy of kowbedge imparted by a professinual hard to his mahing, or aprentice. Etymolos. ically. it is cither the plural of mathang, maning "pupils of hards" and "thime cuncoming anch phpils," or it ereverasa pharal for the alatract noun mamoyi, signify ing "condition of puphage" or "maters reserwiforpuils." Aecurding to Welsh usage each profe-jonalal ham must take three of these apprentices and tran them in all the conentials of the hardie art. When the matiney hath sa mastered these essentials as to he athe to compure in the pentlic competitions, he became a hatel and comblak papiols in his turn. Apharenty there were ertan sine ial themes reserved for the use of such purits, who probahly hat the prisilege of reciting them at a priee dixed by law or custom. In the Red Book of Hergest. whinh is it kind of corpus of later bardie matorial. only four of the tale are really mabinogion. as the manmorit iterlf charty pinis ont, calling cach of them a "hranch of the manmogi." "These tales are I'ayll. Prince of Dymel; Bramurn. Dhayhtor of Llyr; Manawydthe sion of hayr: amd Math. Sim of Mathonay. The remaning tales have ne title to the name mabumion, nor are they inded expall Welsh in them origin. The manuscript was wrinu in the hater gart of the foutcenth century, when the Welsh fucts had conte to berrow extensively from the Frowh, and acordingly many of the themes ate of French and evenindiretiv of briental oricim. This is an extremely impurtant fact for thase who have to use the so-called Mramayion fur the "hacidation of the intricate and difticult Arthurime eyde. Desidus Lamy Guest's elition. we have ther fine diphmatic edition of the text of the Mabinogion, by John Whys and J. (A, Evans (e vels.. Oxford, Ex-7-90). A more complate and reliathe namshation than hers is the Fromel one of I, Louth (s yols.. laris. 1ss', heing vols, iii. and is. of the Cours he lithernture cellique of diAthois de Juhainville and Joth). She also lohn Rhys, studies in the Arthurian Lageml (1)xford 1s91); A. Xutt. shadies on the Lecond of the Muly drail (1.mmon, 188s), with the review by 11. "immer in Gö̈tiongische grthete Anzeigu (1890.1. 488); (f. Paris. Mishoire lithimire de la Fonne (wal. xxx., 1888, with the review by II. Zimmer in (fith yth. Anz., 1*90, p. 785. sig.). A gomil but not rotirnly enmplet bibliography of other works on the subject in given le 11. O. Sommer in his editinn of sir 'lhamas laborys Morte d'- bether (rol. iii., pp 4-5, Lomblon, 1世:1).
A. R. Matait.

Mably, man blec, (inbriel bosvor. de: author: a brother of 'endillac: h. at (irmable, Prature, Mar. 14, 1209; was educated in the college of the $\mathrm{J}_{\text {evils at }}$ at Lyons; served for sume time as serctary to his relation, the minister-ardinal 'loucin. but gave up this position, and livel afterwad in

 andint remblies of Gemer and home as is show by his works, olswomtions sur lehistoire de la (irice (1itif) and


 his Parallile des domains th des Frangais (15.40) were wery -rpmoms and wipertial. Ihe anjosed a great reputation, hawere, with hicuntemprarins ant he wan invited lis the

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the rudimentary idman of mondra "omammaism in his linfope
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 land; heomme a masintrate ithid dejonty lond-liantenamt if








 patent was sollicilaed for his sy-tom, which comsiuts in the
 roal, and no momineration abseal buynd the phymont of

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 a workingman that the common perahe of bramen ware






 plished masient ritic, and in eollaburation with hiv wife ha gite to the fromela Protestant ('hureh a hymothas of erteat value. A few years after the funationg if the mianom the



 Mr. Hcall was a skillool botanisl, and was for yatrs a mernber of the linmota simpery.

 and a miscion-boat which plites on dow inland watemwis of France, The work is carriod on in manll hallo, wher" fant




 high elomere. live-sixthe of thene workera ime formon: the rest are from (ireat britain, the 1 . S... ant onher vombtrina.
































































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Maconglle。 mathath
Whirn] manhious of the ev an













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## Magartney Phearant ：Sce Phasomt．

Maras＇sar：town of（idhes on the southern shore of

 （apial mot only of the Emerment of Macasar，bat of all the Dutehy manome in（riflus and of many ne ighboring Whank：Noxt tolatiasia it is the most important Duteh
 surrombled hy walls ind ditelar－and A．fended by loort lentordam．it－harmor is spacions and safe，and its trade，
 rive，and epicme．in lares．the native inhatitants of the
 are comblewed the mon afted and rivilized tribe of the Mabyan race．They cary on arrioulture，commere，and ＊hiphailding with sheres．Pop：of town， 15,100 to 20.000 ．

Manassar．Strail of：a pasage of water separating Bor－ no from condec，varving in bradth from io to 150 miles． lts mavightion is diflicult on accomt of shoals and rocks．
 Watiris．Jte 3．1：an：was educated at Commall．Outario
 duriner the war of 1si：．Dle was mmitted to the har in
 of sir Perestine Maitamd：bectme juder of the court of




 largely loy haid．He was knighted in was．

## Neal，Mardosald．




















 Vabon Dibating Soricty from many brilliant formentions．


 variety of his chasiend atal litrary matime whilo at malleme



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 as an aspimat fur the highest homors in the mondran sedence of critirmath．For twenty vars thereafter hor was aron－
 a wide range of historical kawwhige，as woll as atm alamot maexamplat mastery of andent and mandern litorathte．atm his essays were soon regardod as the lombing foraturn of a periondient which comated many celehrated nathes amonir its contributors．Macanday took his mastor＇s donere in $1 \times 5 ;$

 didenergy to the service of the Whig jarys．to whese doce



 election to Jarlimant from the parket boronerla of cialme

 his first spereh ith barlianment was in favor of the rejeal of the eiogl disabilities of sews（．Ipr． ond agamet shavery in the West lndies（bee la）．In the great delates on the Reform bill Macomay tow a promi－ ment part，making eight innowhes in the subject，and in the election to the reformed Parliantht was refarmed for the town of leends．As a parliamontary amone he fowk high rank for reat elogheme mod for the exhatative tatamer in Which le treated his subjeets，thourh his tedivers was tow
 full argumentative ofect of hin spethes，whiel was better understom！when they mperamed in priat．In ls：3 he was
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 recoltad in Mondm. With his fiverome and a few followers he fond to the momatime. Ho emomirged athers to join him and forbey the haws of their relision. When he died



 defatad the Syrians under losias at Reth \%ar. Jutan now frewel forwat to dernsalmi. purited the romple and on
 cation of the tample (Fowat of (Chmakkath). The eathe of

 to mblue sume of the nerghmang tribes Hesent simen to (ialilere, while he and Jomathan went to (iilatid. Amtion

 of the batile of Both Zar whald fonewor have sibemed the




















Limbian (intthent.
Macrahees. Book of [from lat. Mareher' $i=1 \mathrm{ir}$. Mas-
 of mequtitheth), a hitmur, ir perhatm ileriv, of makha, the




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 hifory of the parcerations ant of font ley ditionthe $\mathbb{N}$.
 his dive -

It ands with the death of simma Maratues. The

Maromby is fixed ameroling to the sedmembera. It was





 in Latin and two in Srriace cha comathed in tho folyghts

 150.3); lianell, The Aperypher of the olld Trathment (New




 ieal worl in five bank brithen by han of Cyrane. Begimine with the year 10.0 B, ro it given the history of the Hacealyan uprising and carthe the जory down to dula's


 being fombed on facts. It was, howeter. Written with a more religinus or didactic donigh. At the hegiming are adhed (i.-ii. 1s) two letters, in which the dews in ligyt are insited to join their brethren in laheotine in the celchration of the Feat of Wedication, Asce (irit\%, Das Sendschereiben der laliavtimenser an dip ayyt-jud. gemeinden, Monatssifrift fiar (ieschichto). This "pitone wanknon to l'hilo, tut the exact date of its anthor can mot be determined. It was orixinally mitten in (ixwe. There are two ancient Latin transations and two in syriac (see above). (Sice (irimm

 Book of the Macenbers (su calle.t) was mobahy written in Gect hy a Jew of Alexambria. It has nothing to do with the Maccaberos but sives a marvelons and distorted aceomet of the suffering and deliwmone of the fathful Iews of Alcandria durine the reign of l'tumy IV. (I'hilopator), 212 B. c. 'lhe hintorical hisis may he fomm in a similar avent which towk fate in the rign of lendmy VII. (Physkon),

 and 106 A. It. It sems to have been received into the syrjam ("hurcha as is foum in their Mss of the Ohd Testa-
 it:3, sq.) Ther Fourth Book of the Marcebees is an ethical treatiae written pedmbly during the fist century $A$. In by an Alexambian dew. It is cited umber the title tepl airokgá-

 dweds unen this thome taking his illastmans from the
 J.w. with a leanimg towatd Pharisemen. linsthus and whers say that Jowphas was the anthor. ame the work is foum in mont of the Mis. and printed editions of that histhrian; but there are woinht intermal remans for donbting this. Sholars aree in phacing its composion during
 Flurimes masphins be igelegte Sohrift mber die Merrschaft Afr lermanf (Brelan, lation: ah-w (irimm (as atwee); Renss.

Robreme is mate oceamally to a Fofth Book of the Macothers, a tithe invented by Cotton. it is sometimes
 treating of the history of the wew from the time of helio-
 allol with the fires amd socond bows of the Macenhees and Joxpphus. Antiq. (xiii.-xvi). It is evidendy based upon
 omly in an Arabie tansation, whish is incompated in the l'aris and Lamon looghote together with a Latin renderbur. (isitz identifes it with an Ambin dommiche written abont the your 300 A. B, sud which he thinks formed the



 Intrudurtion to the old Trstament (iii., p. Hiti); Met lint nek and atrong's Biblienl ('ychopedia. v.. 1. ©it4.) In the Amhementh Panhta there is abo a Fifth Rook of the MaccaBnes, hut that is a Syrime translation of the sixth book of


ficiand, (iottheil.






 tions this remarkaha, watmo.




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 Wodern Lemblers (1xis): Mistury of Ir lamd from the d"un to the Introduction of Ifr. ditudstonses Bill; A Ihestory of our oun Times ( 4 sils.. 1s:a-so) ; The Eipuch of heform


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heviad by (.. К. Hovt.

## Machimelli: Sce Mamanela.


 [ussed two wars at the l'niversity of Pemneyrania; grmu-
 lieutemant of entrinwers; serwet in the Mexican war at

 and capture of city of Nexieo, winning the hrasots of fir-t lieutemat amd cajtatin for gallantry. it tha chowe of tha war he returned to Weat laint. where he remained until 1s.5., When be was assigned to duty in the cembructint if Fort belaware; subsequently in his whimeermar caparny. accompanied the expeditims to explem the somper of the


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I. I. Kinse.









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(C. K. Hort.

Matcoll, Madom: (blereyman and author: b, at dilen-









 The Bustorn Questom: its Fots und its Fallucies (1sio): There liars of the Liastern (hastion(1sin): (Hristamity in Relation to simmer and Jorsts (obl ed. 1890), comprising
 of limen (athedral, besides numerons contributions to feriondial literature Camon Mecoll was present at the old
 thate at this medtime of mbermative theologians of the


 and the N. Y', (hit and St. L, ratways: 10 miles N. W. of
 tains a private hank and a wekly newinaly and has saw and grist mills, sash and himb fathrice, and grain clevators.


Mecomb City: tomn; Pike eo., Mise (for location of (ommty, sec maj) of Miwissipli, rof. ! $1-F$ ): on the Jlimois
 10.5 miles N. of New Orleans, La. It is in a coton amd corn erowing revion, and has it ctate bunk with capital of
 2,3*;
MeCommelstille: village: "apital of Mergan eo.. O. (for Incention of combty, see mip of thio, ref. 6-11): on the Muskingum river, and the Zanswile and Oho liver Ralway
 has natural gas: amd equtaine fo churehes, an opera-fonse that enst sumen, manfartorios of flome, thateco, and agricultural implements, many chnen residenes, and a weckly


## Ehtrar of " Ileraho,"

Mchook: city; Rom Willow em.. Noh, (for location of

 of Imdianola. $1 t$ is in a farming and stork-raising region, and chatans the division headmanters and repair-shops of the railway mompan, and thre werkly newspapers. Pop.


 anterel bie army as dreve secemb lientemant of infantry in 1sio: after a brief horm of service in garrian, he was ac-

 fiontry artice at Wial loint. Wh the muthreak of the exvil wat la was appointed colnacl of the loind thio Volunters. which rergmont he commanded at the first batble of Bull lima. lamemazing his reriment in the expration of its

 and asoigned to the rommand of a higate in the degart ment of the ('mombrlatel: commanded a division at the bat-
 at the hathe of lorryville: Twrutioth Amy-rnas at stone river amd thickanamgand tha frons for the defense of the capital at the time of Varly's attack on it, July, 1864. licerisen the varims hevats from major tomajor-general.








tenant, and afterward haphain, in forety-firat limament






 ing (St. Lanis. 1sil): The Last Jeur uf therat's Mmistry

 of the 1 lleghernies (15ib): The Siturel Howtory of the Aly




 sipulers and their spirming Work ahiladelphis. wol. i.. $18 \times 9$; vol. ii., 1890 .







 the aetive duties of hiv pofesion for litature, Amontho more important writines are A Trpatas om the fionse and Cure of Jlastation of speech. ar stammering (1andom.
 -1" Expowition of the Sidute. Traturnd.and Preqution of
 Description aml Trentment of the Irincipal IVisenwes Incident to the llamen Prume (1andon, 1012); Motomaia: a Mor

 Trambation of Jufominus Eipectelue. 1) at lettam, May 26, 1siri.


 wrote, while a student in tho latter, an eseny om the stom phidomply, which ohtaimed for him, whation of sir Will-













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 Rolution fo the Suturd (1-12): In lirmmintlion of Wills
















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(. K. \|lat.




















































 Barcot, he managed the bowh otme theater in san Pram-








 Athourh a fowerlal ator he wat in every wiy inferior to
 liturary cultum.
18. B. Vabestive.


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 hase publishat irym-stmitia sport (Andower and bandon.
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Macdonald. Awnow Akchnatho vatesman: be at






























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 havinal ly F. M. Colist.
Macmonald, Fanks: hereine: be al Milton, in the ishand
 brated in 1 alt as the berome of some of the semarkable
 Wham she assisted in ceabing pursuit from South ["ist to Sky. Sha was imprismed an barel vesels of war and in Lambon forsereral monthe: relmad in 154: maried Alan
 burine the bevolutionary war her hastand served as an
 of skye. wher she died Mar. 4, 1 tho.

 Apen: stadion for the mindery the Indenembent College.
 Sianes for some time, hat altimataly beame a lay member of the Church of bingland and devited himself entirely to literatare, sothinger in Lambm. Te published volumes of



 Hilford ('andormedo (1sil): Mutrolut (1sil); The Mar-

 1h. has buel principal of a ladies stminary in London;


Maclonald dames: juriat : hat Eaxt Diver, Picton, Noma


 stiturncy in the Jominiom Parliment 1s:4-81; was railway
 1sfit-6a; Minister of dustiee of ('manda 1si8-81; and was
 wat one of the eommisioners apminted to open up trade rolations with the Weat Julies, Mexico, Brazil, and the Britihh Amerion prowimes 1865-66.
N. M.

Macdomald, sir Ioms hefasher, (i.C. B., D.C.L., LL. D.:
 1sim. Ilis father, Hash Machonalif, a native of sutherlambshire. Promoved to l'anada with his family in $1 * 30$, and setthed in Kingston, whre his son was educated at the Royal
 establislond a lucrative pration, imb became noted for his knowledgo of criminal and commere ala law, and for his ahility as a plathr. In 1844 he was eheotol to wopesent Kingstom in the comada Ssemhly, am sat for this masitueney almost contimonsly umil hic death. som after entering Parliament he began to dipplay thase talents which secured
 "fow yars heman the virtual hatder of the Leper Canada Comarvatives, even before he hat dixplaced Sir Alan MacSath ac chice of the party. He assmed attiee for the lirst timu Mayd, 14t, whering the eabine as hecerver-General;

 to duly eh, bese. when, as lrime Winister, he and his cabinet
 master-tipmeral: mesimed this protfolio the the following


 hal her onqustion in the Ansmbly, lourther with sir George E. Cariar. numil the derat of the sultand Madomat-









 Parliament. Onduly I, 1sta, har was callad umat to form the

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 of his cobinet), when thar arranarel the torms tor the con-


 formed. athe was remarled as the ehiof witulatom of the

 dian legination from dsist upt till the perion of his duath.










 ors anywhere as a conver-atimalis. Ile seromed to have an intuitive knowledge of haman matnre, and pumamed in ath
 this pift sorverable its promoting his pmblat fullay. He disphated the erommandiner chamater of his indelle at and his
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Si.n. In


























































ㅅ. X.










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labrand by davis Mratra．












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 forms．It wat muth used by kuthes in tha days of phate




























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 pedicney than from a real call to the lifu．As a comsenture
 1－．1ata，he wat formally expedled from the mona－mery da Coma at hishon，of which be was a member．Thio dingrace， entraty to all exparations，incileol him to maintian him－ alf in sumety，and even in the（＇hareh，despite the con－ demmation of his sumprioss．He became a kime of aneon－

 for the ferdine of wher，be sucereded in making himadr almont a literary dictator fior a thane．His sermons drew
 It the same thate he triol his bath at ahmon every kind of

 rhamber of deputies．＇loward the close of his life，however，
 more and more marked，and he died in modeot and dises－ teen．Tha your brime his doalh，which acourred at de－ Wrome in 1831 ，ho had hern appointed ehronicler to the usurper bom Migut，hat he neverndertook the duties of the onlice．His chief furetical works are（omtemplacan da nata－ res＂（1801）；O Xine Aryumuln（1s0：n）；Obras de Abracio （translation．1sub）；（rame（an epie，sill；later enlargeal thadre the titla of briente，1א14）；（O．s Burros me o reinulo
 ostulico（181：3）：Xemton：l＇oemu（1813；：Qd corrected and
 ertotime uo lemplo do setioloriu（1s：0）：A Nithreza：Jéma
 mentioned 0 llompm on os limites da razan（Is1⿹丁口）；＇artas filoserficter ar t／ico（ $1 \times 1.5$ ）．Wis reritical ability aml his bitter． sarastice，witty manur apmar in his ratas a Moneel Mea－ Ies Foguch：As Putrates do thentro ine estigutas（1812）： F＇onsura dos Lusiodus（1se0）：Erortismes contra periodicos pomtros mateficos（ $1 \times 0 \mathrm{l}$ ）．It must he said that this vast pro－ ductivity prevent Macedn from knwing any subject pro－ fondly，and the persomal litterness that kept him involved in entromersies all lis life gives a singularly umpleasing flablity to almest everything he wrote．A．R．Mansu．

Macrolo＇nin（in Gr．Maкєסovía）：an ancient and at one time very famons king dom of shathatern Enrope：arigi－ wated from a small and wheure begimage and comprised， when it tirst bumbe known ho history，the distriets extend－
 Thacia from which it was aparated he the river strym， on the E．，and＇Thessaly on the $s$ ．＇The＇comatry was fortile，
 and oil．The rapital was Pilla．Tha＇Manedmians were originally an Illyman ran，though the kinglom was a com－

 Piorians，and other，whe met at leblat and mingled with Thanime from the nirth and direcks from the sonth． Greas had very carly plated many tharishing entonies in


 ruling spirit，lat tue dominath race was but Hallenic，and

 Hexambr，King of Macelnaia，to follow him as hevasal， Gat aftor the halthe of llatast the combtry che more be－ canco ind pembent．A century and a half later lhilip 11.

 of the then ：hat unt he deah of Alexamber his empre dis－





 ＊as limally made a homan provime in 146 a and included as
 Agen the name giadmally wint ass of use，amel in the present adminatratise divisom if＇farky it hate no phare．

Levinal ly d．R．S．steremt．




 tirely by Altie (ireek at the dourt of lhbilip. athlit in apyar

















 Matayos: capitat. primecial rity, aml part of the state of Alatens, diazil: on the Athantio themen, at the manth of a

 America, ref. t-1). The city propne is sitmatemt a little inland, at the base of bintts which form the adere of atow

 Lrow about it. Tha hat of the climate is mondifond by rega-

 connecter] with the main city by a horve ralway. 'The hatr-
 Gent to south winds, and of lato years has tombed to dill up



 a shart sistance ishami from the towno is a salt lake of consulerathe size, atul is mavigited bey -matl stomblumts. It atbomaly in tiva.

MrFiller. Jervis: grintur: h. at Jumbont, S. I., July






 Komdnut, lan, 2才, 1s:11.




 arch. 'The aspurt of the town it ※n lf is strikitus. athl the pati-
















 about 10.(08).





















 Whind orcturred in lall.



















 his "omapaitions wore writton from dictation hy hio wife.


11. E. Hf:K末EY.





























 rul l



















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 a stady of the 'hathotan carthuake, on the gromat, imme-

 and hom the furition for fome seare: he hat atoo colited

 1. . .o. and he han preparal a semberic map of the state of
 and was apminted andengint in charge in the burean of




 Rome. In the department of chureh hinory in Lane somi-
 and in 15:3 he Wrame profesor in the same department in

 with prolecomenat and motes, of the (hurch Ilistury of Ea-
 Yorth, 1s! $\%$.
C. K. Hort.

Matill dayte: fommer of MeGill Collage Mantreal: b
 rembed to Comada atumt lat!. For anme time after his



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 terater chicef William Weatherfort.






 trisfothe to Cimatus (1834); A llatury of Bratah birds,
 majoin marl, if mot all, of the sondmatic furtion of the text



 and printed in lasi.

Kevion by f゙. A. Lras.


 in Xow low dity, wher he mphlly gained great intluence wer his condergation, dis upuation to the extablishment of paredial whends and his ehmminnship of the the rines
 anthoritis, and he was remowed from his charge and summanel to the Vatican. (In whene to ney he was excom-
 sowety, and became its president. I reconciliation was
 of exemmanication was remoed, and he was restored to his rank and dirnity in the ('lureh.

Mediready. mǎk-griali, James: vergyman; ho in Wevern


 a remarkable revisal of religion, which, begun in jas, hated for sume yars, and lad to the organation in July, 1soll, of the first camplating. The religions mowement thax thent was earrid on by young men who were ordaned to the minitry without a regular etueation in thendory. This step gate rise thelducition, and the enclesiatical, diffrouties culminated in isfo in the omanization of a new ('hmith, which lank the mame ('vaberlaso l'rembterian Chath (\%, e) from the recion all its origin. Two vars later he withlew from the new buly and returned to his former posintery. He diod in kentucky in 1817. His Col-
 Lite ly Rev. J. B. Lindsley (Natwille).

lievised liy C. K. Hoyt.

Mchruror: aty; Clavion co., ha (for hation of county,
 Chi., Mil.andst. P. Jailway ; upheste Prairie du (hien, Wis., 35 miles N. W. 口f bulnome. It is in a picturespue valley in an agricultural region; has large gram and live-stock interests: contans railway and rebir shose arrage and wagm factory, hlank-luwk mannfactory, lindery, and two werkly newsalats: and is ant attractive summer resort. Hew are curims pietured rows and l'ike's leak, the high-
 1,160 ; (14:15) 1,201 .

Fintor of "News.


 leg of bindmesh: minister of the Barry line chareh








 tecrinas an Trial by their l'rinctples (Damadin, 1890): The

 1sas: : : in preses The liftholic Puefriur of the I'rasen of Thriat, and studns in the Mistoryg of thristien I puhmelies. C. K. Horr.










 land, he was cimployod on ammernal misums thaymal Faropean governments: wat in 18.10 a smentary of the

 Royal British Batuk, on the failure of whioh heretiond th







 ada; wrote and sketeloal lar P'anch and wher furindials;

 in the liob Rey ''cmoe' on Rivers athl hakes b! liturow; in bator vears made other woyses, recorded in the balumen The fob Roy on the Ballif. The lingelge Alome in the tinut hob hoy, and The hob hoyg on the therdun, all of which have been very ["pular and have found mamponk intitators.
 was a promingot member of the Landen schend fuard, and
 ham, laty tf, 1x! ?


 and entered a haw yers othere at Litoneries. where he diod


 of great leamy, and its hamaga is hishly mavicul. If, ako wrote a nmater of short lyrie phenis and storics



 stomi ly his contempraries, was fully renguized be the succeding emeration.

## I. I. KRil.










 heen desceribed from the Midhle and Later 'rortiary and

 Dakota, was semman smabre than the comar or American panther, and the whull reerobles: that of that amal in
 from the sewalik llills, mias. M. follotivens from the The

 from the Quaternary of kont: Ifole, Fhedam. wateraroly smaller, abd cqualed the hareme liviner tige in -ia. whit. M. neogers from the Quatariary of the catrop of hazal











































 8.



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 -rak of all that intermes hic antive mind, and while her


 a remplete picture of his faldio attisity and intillownal
 had grown to manhent in the Fhamen of Levoran the Masnificent. The brilliant denter of the ervat reaival of harniner hal rem the riew of the wew thramion in laty. the gas-





















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 nut he hened fore ar he look tor the prinere who shatill be





 and imprisomed fur a whilo. but man set frea, with the injumetion but to leave the territory of floremee the withdrew hothe eonmery and in his enforeed leisure energed in the companitinn of the works that hate made him famoms. Ha (entimmento wateh pmble atfars varerly as is shown by his heffer fomilieri, alomost all of whieh belong to this ferionl. Hare amb there in theme we lind at chaming deseripfion of his rural pleasure ur of his intereonrse with his

 rism, ath inlvien.




 forat rime. Tha purely literary vorse whith he wrote later





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uf the percons atfected and the mornlity of the acts commatterl. 'The invertieration is carrion mit with the pitiless logic of a mathematieal demonat ration: evory step is prover byexamples from eontompurary histury, whibl mafortante-
 prineiplec, of which maty, howner atrtling when wapesed
 as true by all statesumbund hivarians.and ure followed by prationlomen in daily life. some, however, if momenlifid.


 denee that it was erer presentere. The dedientime was in-
 anthors ripert thurht, whith was mot written for a speeial oreasion. like the Ihsense (phblisherd in 15:at), it appeared ufter the author*- death (in loses. The Principe has given birth do an andleme emitewerial literature, dating from its phbliotions. in which it is atatekerl, defembed, exoused: in which gumotimu is raisel as to what Machiavelli retily meant, whether the bank expresses his real convietions, whether it is not a sutire-duestions hat are likely to reman matters of whand. In hiv bod breaking away from all medieval amb even hommasie traditions of the state. and from all sholatio. forms at thought, in bis purely ob-
 in his thomorfly motern way of lomking the facts in the
 mande politios a sciente. and will samel forever as a masterbitere ol Italian prose sthe da 1501 Mathiavelli, who hat fong heern trying to drat rbaser to the Netlied in the hope of again enteriag the activelife for whid he was so well fitted. was commissiond by them to write that history of florence. amd hy 1.25 had completerl the work to the death of lorenzo the dignilieront: his intention to contane it to his own time was prevented by diath. Anxions to give his story a furm worthy of it, in the Istorif Fiorentine llachiavelli furns to adier historical models. and depate in some depree from his usual simple style: but it is the new method of treating history that gives the book its merit. No trace of the ancient ehronieler is heft: careless amd often inaeeurate in matters of detail. not alwas eritical in the choice of anthorities, with little sympathy for the Midnle Ages and dearl institutions, the iuthor secks everywhere for motives, for canses and results, for lessoms to be drawn, for What can lie of use in the present and the futmre and applies to the task tha dear, judiomos. dispassiomate intelligence that is his chief eharacteristic. This it is that makes him the firs of modern historians ami flaces his name by the sibe of those of Theitus and Thacsulders.

The rimd of Dinchavellis life was clomded. dle had acynired the eaterem of the Nediei, hat hardly had they began to make now of his talemts when in 15:- they were again Ariven ont of Jobernce and the republie was re-establishet. It was not to be hoped that Matehiavelli would be restored
 that he was int ; and in that same year he died. and was hurien in tha fimmily ehaged in santa Croce, Jeaving his family in aroat purarty.

The chanme of part $y$, the desire to serve both the repablie amd the Medied, has been mater a reprometh agatast Machiavolli, hat mot with matire justice In all his jmblice life he Was firs amb formost a citizon of Floremee : his loyalty, his patrintism were fur his dity almon. In all his writings lie shows his preferome for a repuldie, and he had served his repoblic fathfally: bat when the erovermant changed he contimed a llorentime amb was raty to serve his country maler the Marlini. A pratepical man of hasiness. he sompht.
 the dismber that wakened the state, athe su was realy to necopt it tranny, whinh win strong and promerved mer. in hence of a rejublie which retained only the form of liberty. From the mavietion that Flamee emidd be free and powerfal only if foretumers wore ker ont of ftaly, he was ded ter thank iont the remody, and foumd it in the inlea of a mated lanly. la seelione the cure of the evils whinh ambet his









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> (i, haxmand.

 $\mu \overline{\chi o s}$, means, expediont]: comblations of diseal amb masing parts contrived with an intent to utilize fore and mot tion for the nttainment of a desired rimult. Merthanioal mathinery may the elawiliea in general tornse an follow-

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## HACHNE－GじNが

Mitrailleuse．－Probably the tumt known of the early
 twonts－five barrels，gronted in parallel rows of lise they


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 the diatline gam．

 rels are cameal toratate hy a crank，which may be aphled
 lat rear of the barreds．and it proburgation of them，is a brass rylimer，whome surface comathe a write of grooves， she for each harrel．lach of then growes carries a bolt， which is made to mabe in its gromso parallel to the axis by the sethon of a fixed can in rear of the bolts．Fiach boit
 I）the harreds and eytinder rotate the holes are pashed furward in their growsis．A cartringe heing drophed from the masazine in fond of a bolt，is pashed forward by the Iatter infor the harrel．When it reaches this position the hamed is closed by the bolt，while the firing－pin，which has heern trawn hack during the forwand mation，is released， and fires the cartridere．By a reveral of the motion of the belts，camen by a chambe in the directime of the fixed eam， the empty case is new romoved from the barmat and ejected． lhis buters ques on continually．the bolts on one side ad－ vancing toward，athe on the ather side retiring from，the burpeds．
＇The ammmition was formurly fell from a tin case in whinh the eartribges rested one alowe the other，and，the case beiner hedd vertically ower the gromed cylinder，the cartridges were deposited in the grooses and in front of the bolts by the action of eravity fhis was ofen to many serious ibjumtons，and is now ahamboned．

For low angles of rlevation the Bruce feed is nsed．This eonsints uf an upright stamdard of hans，on the front of which is hinged a hate having two growes into which the heads uf the cartridges tit．By removing the top from the Iedur bux in whielt the cartridges ure packed，they ean be sliffed into the ermoses of the swinging phate，and the box pmlled off．One colmm of carmidges is then ready to feed into the gun．When this columan is exhansted，the weight of the second column canses the linged plate to swing over， and bring the opening of its growe over the magazine．A where is momed helow the mouth of the fede，which ro－ tates with bery litle fribtion．The eartridges strike thes and are delivered to the growes paralled to the barreds，and thats jamming is asuided．

Far hirh angles＂l wovation a pusitive feed，and one in－ dependent of rravity，is required．For this purpose the Aeckes feed is designed．It enmsints of a drum whose hends are separated by a distanee a little greater than the length of the eartridge．The eartridges are heht in sumal grooves in this drum．the polde of the spirals being at the eenter of the drum．Ralan arms rabilveabont the center of the drum， the rotation heing eamad ley profections on the growed eyd－ inder of the gun engaring with the extremities of the arms． By this rotation the arms jush the cart ridyes along the spiral growes of the drum，and deliver them to the barrels．The cartridges being bold by the grooves are alwass fed paralled to the axic of the barrels，no matter what the angle of ele－ vation may be．

The hatest monded feed consists of a strip of tin，to which the artringes are attachen hy punching long，narrow pieces ont of the stif，and wrapuing these piecosaronnd the ear－ triblges．＇lhis strip of tin with the aratridges attached is fed into the grom，the vartridges acting as the texth of a rack am！the hated evlinder whieh carries the locka as a toothed Wharel thane the strip transerady．A wedge－shaped pro－ fortion frees the cartridges from the strip，atm they are then fonsed intu the harrels toy the lextie as before ghis feed is simple．light，and imben＇mbent of gravity．

The fiardner（ilm．－－This has iwobarrele，whidh are mar－ allol am！side hy sicle．liach harrel hav its own batt，as in
 altermately in rear of the harrels and farallel to them，by the action of tworams，whidh are rotated hatank．These cams are lat abart，and．consupurntly，while one bolt is musiner forwarl，the othor is mowing back．When the eansare on the eenter，one barel is tired，while a cartridge
is Aropped in front of the orber bolt. realy to he pahal home. From the mature of circular motions, than . Filt is drawn bate showly tirst, thas piving power for the extraction of the empty casis. 'fhe ferding of the nmmmation is some what similar to that of the brow in the diatling gon. As the bolt mones forward it opens a wale and allows at cartridge to drop from the fexd-guide in from of the opposite harrel, at the same time shatione if the ferd from the
 deliverings so many shots in a given time she the Gat ling, owing to its smalher nomber of hares.

The Nordenfelt cun.-This is compumel of ammar of
 the Garduer gim. Fach baren has ite belt, and the bults are moved forward or backwal together by a horizonal hand-lever on the right. Abwe earh harel is a magame. When the hols are drasn back the watrilens drep in front of each, and when the beltaremoved forward the cartridges are punhed be them inter the harrels. As the balts mose forware the hammers are medned ty a comb. Whan the barrels are chasel hy the bults. aml lockiol he liokiner talts. the comb which retains the bammers moses sidewise and releases them one after the wher, wh that the hames fire sucersively and not simultamonsly. Tha eflect is that of a volley, but the sho $k$ to the gun is not en ereat. 'This gan is used principally in Jongland.

The IIotrhkiss Revolring ('ennon.-Chis differs from the Gatling, however, in bavig hot on hating, one ibring atal one extracting me hanim, which af in turn on eath larrel. The caliber is $1 \frac{1}{2}$ inches, and the progertides stwel shot shell. or canister. 'lhe herech is solid, and is of east ironamb very heary, to resist the show of diseharge and asist in wercoming recoil. 'The barrels are male to rewalue be the action of a peuliar gearing, driven by a crank on the righthand side of the piece. 'lhis genting is fire othe-half its ciremference a serew, amb for the other half the serwthronls become panes paralled to the axis of the gun. "lhis gearing engages with brasy stads on the rar emi of the central shaft, and ly its arramoment, while the arak makes one continums revalntion, the barrels rewlue during one-half of the revolution and remainstill during the other half. While the barels are cotating the firingepin and had-ing-piston are mosing to the rear, and the extractor the front. While the barvels stand still the eartridge is fired, the empty case extractod, ant a new cartride inserted. The roation of the barels then berins narain as before. This gun is used principally in the ['. S. mary and was origimally intombed 10 alot against torpeda-bouts. hat its relatively great wedoht and small caliber have cansed it to be replaced for this purpose by the rapid-lire gim.

The Mexim dutomalec Machine-gm.-This gun differs from thase prevonsy described in being as its name imbicates, mutomatic ; that is, after firing mene shot, if the finger be kept on the trigerer, the gun will lrial and tire antumatically thll the supply of ammuntion is eahnusted. 'lobe inventor is Hirmms. Maxim, of the E . S . The gun consiats essentially of a barred attached to a frame. This harrel and franie are mounted in a casimg, and hatwe a blimg motion in it. The brech-bloek has a motion with raference to the harel and frame. When the cart ridere is firent the barrel and frame recoil together in the casing for a short. distance. At the ond of this recoila eam athabed to the sliding frame strikes a fixed cam atherbed the the ening. The action of these cams draws back the herech-1, lock from the rear end of the harred. As it move hack it withuraws the empty shell from the hared and inaws a froh cartringe from the magazine. The recoil of the haren and frume has also compressed a strong spiral springe which mew at- to pull the barrelam frame formard to it - tirine gnition. Tha block having extracted the cmpty sholl and drawn nut a new cartridere as abowe exphated. its font purting or catrier, which shdes vertienlly, is catued to drap. The buw cartridge is now in prolnigation of the hatrel, athl the empty shell opmester the "jector-tute The strone gimal spring before mentinel nuw moves harrel and blak for ward, and at the same time mose the hati forwarl rulatively to the frame, pushing the bew cartiole home amb the empty shell into the e ojectur-tuln. As a tinal apration. when the bow is in flace the firingepll will he rondach anlomatically and the cartribue he fired, if the permire on the trigger he matamain. Alter the insertinn of the farIridge and just before the brewth is elrowh, the fromt prith inn of the block or carrier rines and engage with a mow eartridge. The cartridges are fed from belts, wheh way tue




The Motchlises latpol-fire lian.-Thin is made of sa-


 attontion will be riven th, that. The hallolle guation are atwat the same the all watho of the sam mather. In the
 in the hreeth. I lever withtwn handl- projent- from the right side of the beerh and when rotatell ha the ham an



 tion of the crank-ama. While ther shat in moner themeh


 shof. In falling, the bock draws hamkan eatrator, whim
 falls far enmath to maner the rear and of the batrol. A new cartridere of then inserted he ham, and by mor-ing the motion of the hamblewer the Whet riag. pushime the cartrilge lame and clowing the horeth. The gat in that
 to the gun of to the currage by whith it man be amed.

 ing movement, and the uffer bart of the berchiven ant
 bhek has on its uper whyex surface foneming ribe
 the breech, and thas resist the recnil. After firmas anmallo is rotated, and this moves a cam which art-ujen the honek and fores it downaral. Thiz downam montion of tho bhek continues unti] the ribe are diongatel frem the growes in the breed-reces, wher the binck mandom the the rear. Boring the downwaral motion of the hant, the hatmmer is cocked ly the action of thin ram, amb when the breed is "pen the cartridse is ajectal thy the antin of the
 serted by hand, a reveral of the notion of the latertion
 The whantage of this rotatory mothon of the bhok is that the cartritge neal mat tue inserted ha ham on far int the hreed as in the cave of a sliling liburk. for the rotathen tumb to finh the cartridge hame, white the shiting tomb rather to anillotine it.




 whole has acombacd wotion sliding and ratatory motad in a shot in the brow. by moving a hambebra the rear

 down a certain divance, be the ation of the cam ofl the
 In this revolution the hamur i- conked and the centy


 Weng. fart of the hand riow berthally and frewta the fromt part firmb agemet the brewh.






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harrel and horesh-hank. "howh

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 Intenth，the lased af the Barlan hrand of the elan Mclan－
 of his tribmom，and stelled in Now havernes（now ba－ rion），in what is now Mchnonh Comety．Lamban hat few
 sthdiod mathematios and survering：hecame at clerk at （＇hathestan in the combing－home of his friend Ihenry lau－ rens；was afterward a mover in the Ahamaha regien；


 eommanded the Wistern thertment bios，and led an ex－ predition aqains the hatians of the thio valley；was at－ tively engred in the sioge of savanaly hat，and in the defonse if（hamtesten 1a0），where he betame a prismer of war，He was at member of the Cominental Congress 1：84， and commiononer 10 trat with the Southern lndians 1 iss 1）．in savamall，Fel，24，1406．

McIntosh．Mam J．nfe：author：grambiniece of Gen． Lachlan Nelotosh； 1 ，an Smbury，（iat，in lam：was edu－ caten al Smbury Ambeny ：removed to Now York in 14：35； suffered a reverse of fortume in the linancial erisis of 1 s．ait， when she detwminel to emrn a support byathorship：puls－ lished in 1841 a jurenile sory entitled Blind Alice．which was fullowed by other juveniles（1－t：）；the whole series was
 wre repmbishet in Lombon as also her later works，among which were conqutst and Self－conqutwl（1st4）：Noman an Latgma（1844）：Tho Limes or to seem and to Be（1st6）： Himan in－1merica，her Hork and hir Reterd（1850）：The Lofly and the Lom？（1く53）；and Neta（iray（1858）．I），at Mortiown，N．I．，Feb，es，1sis．Revised by Il．A．Beers．

Machar＇mess，Jons Fielder，I．I ：：linhop；be in Eng－ tand．1he． 3,1600 ：mhented at Mortnin College；beame a frolow of Exuter loblare Vxford：tow loly orders in


 of Exater 1ntio：farorel the divestablishmem of the Irish Thurch，and was almmed in Dec．．1sots，Bishop of Oxforl． Owing te fating hath he tok measmes for the resigma－ tion of his ser in 1 ses．hot before the legal formalities hat beed filly carred out he ded at comdedon，near Oxford， sept．11i，18s：
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 fommed thee Throat llopital. Ilis skill amd dexterity in operat ing abd the fortility of his resontern combined to wive him the larerest practice in his suediaty in dinghand, amit to necemitate has arview lur the fown lrince, sulsequently Frederith lll., of Gormany. For than hatter services he was knighted in lixa be the flucos of Fughaml. and had con-
 Order of Cermany. De wa prowhent of the latrygological suction of the international modionl comeress halid at Copenbagen in 1sef. and Was tho tims powatent of the british Lairyngulogial suciety. Ilis treatise mo the tise of the Letryngosceple (Londun. 1Nifi) pisand through soreral edilions." lis E*ssay on Grouthe in the Larymx (1s.1) raised him to the fromt rank of baryughnists. Blis other important works are 1 Mimulal uf lhereses of the Therout and



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 tory，in lsal）．1）．at（＇algary，sejt．5，1sad．

N． 11.
Mactabl Maloom：Camdian explorer：1，in Stormoway，
 America in jxll．and entered the sursion of the Iludson＇s lins Company．In $1 \times 15$ he was detaibed to assist the Selkirk
 force which foftatmd，on the present site ul Wimnipeg，a latere fore of a rival．the Nonthwes（＂ombany，and erecterl forts，honses．and harno an the territery he hat secormel．In kese ent the readition of tha two compmines．he was selerded

 an extembed trade in furs and other proxhets，to the lacitic Whoan，in empunction with a projerted line of shipping to
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 Where he cotahlishol a hare farm and erected grist and
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 in North Amelian．In 1s：3fleretirel on leave of absence，


Maclarod．Nateomat lawyor amd amthor；b．at Green



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 sides many articles in tratimical journals.

## Cumbes F. bersey.



 minister at kirkminhal, Pothehre, 15: 61: of Free st.
 of the Free Weat whreh, firanack. Desides contributing
 her has published the followinge lanks, mont of them in seraral editions, sume of which have hem translated inta sev-




则 ed. 1-is); Son-glimfs of the Withermes (1xi2); our



 satrs; My (bumfort in sompar: and The ricto Berntitul.

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McMillan, Jume: $l^{\circ}$, semator; b, at Hamilton, Om-





 puhlem, Mar. t, $1 \times 59$.
 15:6): Capital of Yimhill (an. Wre for lenatinn of cunty.







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MeMinusille: town: capitat of Warmen chenm, (for


homa, inmiless. Lo, of Nahbille, It is in a farming amb fruitarowing region: is the seat of comberland Fanale
 tore 115 :tudents, and sionheo invered in grounds and hoidings: and has librarios, weekly news mpers, puthie
 foumbly polucts. Pop (1500) 1.244; (1840) 1,627.


 tamed the sovere of Richard de Clare, Eat of Pembroke (sumamed itronglaw), by whon he was restored to power in 1170. We ratot quw stronghow hiv danghar Exa in marriane and dyine in the same year was smepented by the invaler as a vional to the Engliflo king, this being the fomdatien of the Einglish claim of -urrematy in Irelamed.

MeNab, Sir Mas Napler: shliker and statesman; b. at Niagara, camada. Fel, 19. bas: bemme at midhipman in 141:8 served under Sir lames Yeo in the naval expetition against sacketl's Hatmer and other I'. S. ports of Lake Ontario: joind the army as pmign of the both regiment was persent at the captime of Fort Nagara and at the hattle of Plattsharg; studiod law; practiond at llamilton; was clected a member of the dsambly of (parer Canata in 1830: berame its Sumakr at a later porion ; commanded the Canadian milita on the Nagara frontief during the insurrection of 1sisi-3n, with the mak of colomel; routed the insurgents
 Niaram Falls the stamer Carnline: was knighted July 14, 1s:s: Weame spake of the Lecrishture of the mated provines of Comalit in 1s44: I'rime Minister 1854-56; was made a hatomet lich., 1sisi, and hed at Toronto, Aug. 8, 1860.
 ambasidor and commisoner; b at Colonsa, Scotland, in 1795: Was apmomet assistant shroy at court of Persia in
 inent throngh his prediction of aggresive designs on the part of Russia, a subject to which a nrat part of his career was dewored, and which he treatel in mumerous pamphlets and essays in the bugli-h and Indian periodicals, as well as in a volmme ratilled lroquess and Pesition of Russia in the Lhant (1sis). Roturning from Persia in 1844, Sir , olm whi emphoy in may civil and mblitary commissions in Enghat and sentland for instance, inquiring into the administ ration of the eommissariat of the army in the Crimea, 1850), and became a momber of the privy chand (1857) and Charman of the per-law hard, I). May 16, 1883.
Maromh, wa-kmm : rity : caphat of Mehonough co. Ill. (for location of emanty, see map of lllinois, ref. 5-C); on the Clii., Burl. and (juincy lailroat : is miles N. F. of Quines, om miles S. W. of chieago. It is in an agrienltural and fire-clay reqion: has mandatures of pottery, tile, and sewr-pijut abl contains a mormal eollege (estab) lishal 18:3), hifh sehool, publie himary (fommed in 1885), and thre weckly newspapers. 1op), (1ss0) 3,140 ; (1800) 4.052.
Macomb. Alexamars: shdiar: B. in Wetroit, Wich., Apr.
 tion of war with (ireat Britain (June, 1s12) was acting ad-jutant-gemeral of the army: but peforme netive fiehteservice, he was appuntel in July colund of the lhird Artillery, and lixtinguished himolf at Fort Nagara and Fort George; prometed to the hrigadier-general in Jan.. 1814. On Sept. 11, with 1.50 men mal a simall mamber of militia from New Pork and Sirmont, he fonght the batile of Plattsburge defonting a largely suprior foree of british weterans under Sir Gempe Drevist, for which smeve he received the thanks of compress aml a wohl madal; was also breveted majorFondalam commanded a military depart ment in the North-
 lattor your, he was retained as chief engineer, with the rank of entimel. In May, 18es, he suceeded (ien. Brown as majer-senctal in command if the army. D) in Washington. Jun 2: 1N.11. ILe wa author of a Trentive on Martial Loul and C'unts D/artial as practiced in the L'nited States ( $\mathrm{M}(\mathrm{O}: \mathrm{A})$.
 of Framer : capatal of the departmont of sionse-et-Loire ; on the river some, which is lined with beatiful guays and crosed by a hridge of twolve arehts (we map of Franec, ref. 5-G). Otherwise the town is ill built, with marrow, urowhef, and dirty strutc, but its trade in timber and hurgundy wine is considerablo, as also its manfactares of

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 larmest hipmpmanno. hat powably hat a hes brond and bulky bety, amd the noek was elongated. O. C. Alaran.

Macready, makred di. Wifiday chardes: actor: bo in
 atrial maname to Rughy to be liturally educated, but his profected carer was ut short by puniary embarmsoments, and at the age of arentern he exsayed the stage, making his first apparanep at birmingham in Rome (June $\overline{\text { a }}$, 1810). He first undertome llambet in 1811: phame with Mrs. Siddons at Neweasilu in The Gemester and Dongles: phayed at C ilasen, Bath. Berwick, and lonblin; was seen in london at (Cownt (iarden as Orestes (šipt. 16 it $1 \times 16$ ). Ilis success wa- sow, but steade, and was hue to hand work rather than to genins. In 1so? his engagement hequat rownt Garden, amd hi- routation rose in marts like Virrinius and Mirandulat till 1seb, when he went to brury Lane. From this time lue tank rank with the illustrionis of his pmession. The same rear he visited tha $l^{T}$. $\therefore$ : the next rear bue mate a contimital tour: in 1829 phabed in laris: returned to Enclamb, and for several years playd in louton and all the
 and mane at lour and successtul professomal tour: made anothre eneagement in laris. and performed in Ihempt at the Tuilerios hefore donis Philiple: returned to the ['. S. again in 1849. during which yar the Astur I'ace riot in New York ane urred; in 1 sio hegan the long serids of " farewells" ta the theaters in Fingland which temmated at Drury Lame Foh, 2t, 1sal. Till 1sto he lived in retirement at Shormac, onjoging sedety, taking an interest in public institutions, and ircasmally giving rambings. The hast years of his life were spat at (cheltemban, where he diad Ine 92. 1503. Macteady was one of the hast of the great shakeparem actors, a gona scholar, a man of time literary bate, wh high grofessional ambition, of elevated character. genetms. hamate, modes, and just. Sie heminisences and Dimeros. wit. heviond ly 1s. B. Vabexane.

 Mantania: ontered the servion of lamaman the farorite
 the inturial homedoh]; herans prefent of the pratorians and was chown maner by then altor the assasmation of
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Macrobins is the fir-1 paran writar whamation thmemas


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## Macroxpare: So Vybryon,onis.

Maeru'ride [.Wond. Lat., named from marrurne, the typical évim: (ir. maxpós, line + oúpá, tail]: a fanily of tisho

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 19, 1593.








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 6it. In 1-s.
































Madar', or Mndar [ $=$ Hind. multer]: a large plant of
 izerl in the Wint buliw. lis fitere is met fir makimg Whth and combate and the bark of its roon is emphered with apparent adramase in lepmos, elophantiasis, sophilis, and onher discan".
 numpl: tewn: in the provme of tanera, smathern laty.
 1to chiof interet fur the wifur is the wram carolito ameduet, Inilt alant lian whith bring the watere of the Ti-
 a finc casable that supples the lake and fomatams on the





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Madder [M. Fing. mader < O. Finw madere, Fr. garance,
 ent specins of liabor, whetly liwhat tinctornan. 'Thue main supply if commere is from 11.llamb, thugh the phat was
 where it is still cultivatel to a hare extent. In ohm, Detaware, and chawhere in the [.s., the cultivation of the plant
 ront uf labor mungisto, and gives the hrigh colurs to the Gant Jmbia chintzes and calienes. 'The tern Turkey red, apphed torne of the tints phatued from this material, arose gat of it: impartation from the levant, where a conmom
 whene we get our themical name for the whef tinctorial
 of maddre is eallodyturatin.

Madder Family: the Rabiarter; one of the largest of the familits of deotyedomons phato inchating about 4.500 Suevics of mosely trupical harls, shruls, amb trees. They have opposite or whorled leaves, and regular, grmonetalous flowers, with inferior two to several eelhed ovaries. The

madder (Rubia lineforum), a mation of the somith of Europe, amel Wextern Asia, is grown in many pats of the world for its roots, which yield is red ife. Several smedes of South American trees of the gemms finchond yiehl Pernvian bark, from whith is extraved the wed-known drag guinine. The colfee-tree (coffed urubica) is a mative of Abysimia, bow grown in many truphat contries. The emetic atrus ipeacumba is theriver! from the romes of a semi-shrolly Brazil-

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 at riber of smeth Amariat the most improtant of the sonth-

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 has a lourth of at batat Fint milno 10 its jumeton with the
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 tit Nomanfonits, was edeced fom Grange county to the Virginia monention in the pring of bationd signalized
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 same var loe wicernoted to the Virginia Asembly; was

 where he firet ratum prominence thronth his energetie of
 mate chairman of the cemanittere of forejgh relations, amd as such wrote an ahle memorndum for the use of the Ameriman miniters in fratee and spain, establishing the clame of the gomug repuldie to the territures bet ween the Allerhany Monatime and the Mixswiph, and to the free naviuation of that riwor. In 15: he was ehamman of the committer on ways and mons, was the primeinal author of the syatem of revembe then adoghet, amd wrote on that subloct the admex to the tates andoded by congress. As a member of the Virginia Lemishature 16"-s6, Madison rembed impurtant arviec by ponnting and participating in that revision of the statutes which effertually abolished the remnants of the fendal swatem subintent up to that time in the form of entaile primugenture and state supfunt siven to the Angian Chuch: and hic Aemarial and Fitmonstrane on the lattor saligert was one of his atlest

 for more satisforner combereal relations butween the Stato: repwont Virginia at the - Amapulis meeting Which inswat the rall fur the national ematitutional con-
 which mot at lhaldelpha May, EFi: was on of the chief

 was a momine of the firm four Congremes, 1as!-9\%, in whieh
 Folier: dedinel the miona to France and the secretaryShip of statro, and, gradually identifying himself with the
 in batit was its chome for the proddeny as surcessor to
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 domation of the . Wian anil sedition laws as well as of the
 is be many consideted his ablent state jalir. 'The great reandin in pmbtie whiment which sated Adferent in the

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was prosecuted three yoars, mation liy alternate sheress







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 ment rarely surpasid, his haguade and liturary sty for rect and phlished, his whemation witty, his tompromment sanguine amd tratfol, his intwrity unpuedimol, hin mamnuts simple, courteons, amd winnine. By thate rate phalities the emodiated the exterm mot only of frimh hat of





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10. B. Colm.
































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WilliaM A. ('OFFIN

Madre de bios: arehifulago. Sed Manmanjs.
Madrepore: a group of wral-fomming fuly
 usually restricted to the tree-erals of trepical seas, but in the hroader sense it inclades the greater portion of the reefbuibling forms.

Madrid': the eapital of spain and of the province of Malrid, a part of Krw (asilin: sitmatenl nearly jn the center of the momery, in lat. 40 2: N.. lon. 342 W. on the left bank of the Manamares a small stream which joins the ota-
 Thu site oflers no commercial or industria! : whantages, nor
 fintean-2.000 feet high, amd nuce covered with forests, but now, with the exception of the immediate nejghborhond of the city, mated and arid-suffers from a very harsh elimate. In the streets al 1 he eity the the rmometer sumetimes falls in the winter to 18 , and rises in the smmmer to 105 in the shade. Changes are frefucht, sudden, and violent, and the difference in temperature betwent the sunny and shady siles of the strect oftom amonnts to 30 . The city is first mentioned in histery as a Monrish outpost, called Majerit, lut was aptured in lose by Alfonso V1. of Castile. llenry l]l. of ('istile residen] there oftern for the pleasure of hanting ; Charles V. went there orvasumally, and in 1560 Philip II. made the place his capital. From this time it grew rapiolly into a magnificent rity, and liecame the center of the Spanish prople, political and literary. Lop. (1892) $\$ 50.000$.

The eits is surrommed by a brick wall 20 fect high and piereed hy fiftern gates, of which the most remarkable is Puerta de Aleala, od leel high, Luilt in the form of a rivimonplal arclo with live ofnonges, and stambing at the font of the shrot of Aloila, which, thres-fommas of a mile long.
 the most marniticent streats in lanome. 'lhar sonthwatern (or old) batit of the eity ematains many marrow, crooked, and ill-krpt strefts, but the rentral amil eastern parts consist of stright, bond, well-kopt thomorhfares, linerl with handsome homsos. matuificut pabats, and clegant publie



 and other fubliu halhlimes are siluatod here: alloo the best
 berome a geberal rembegons buth for business and pleas-
 the royal theater, contains an equostrian sation in bronze of Philip IV., I! feet hiorh, draighed ly Montanes; in the



 erebthated, amd fram the lical (asa du la lanaderia the king




 dons, the lemalo is lat most remakiabla: $2 \frac{d}{2}$ miles lomg,

 phantad with fatatiful treas, and in part adorned with magaificuat fountanms andel satues. The verw which these
 ple, is very hrillinnt and eharamoristio.





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lavinel by (. K゙. Ioams.







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 "f these Jatrath wrote the lime of his didatedie works, the








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 erompleted in 10: 1 , and at wine hroment mon the foret the chare of having mathe the Jible necesible to the haty. The had to deform himsedf from the charge, fendally before the Sishop of ['trechat. Lomafler, at the request of a Frameiscan of Clemeht, le transated into Jonteh St. Bonawenturats life of st. Jrameis, Lema ran St. Premeiseas (ed. by d. Thide-

 "f Viment of buawnis (od. liy de Vris and E. Verwijs, leviln, 185:-6:3). This enomons task he did not live to finish. la his last years he wrote a monher of shorter pieces of a dovotional eharacter, amoner them a beantiful crusite
 work makes Materlant affarar chafly as a translator, yet in reality his criginals wre to him bitthe more than general cruble. $1 f_{0}$ seldom followed literally, and he showed everywhere the buteats that wore his ame those of the serions arat of the Jontely ferghe. Jonere his great vorne and jnllu-






Mansa, Jrtata: sister-in-law of the Emberor Shetimins









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 and eive pride. Traveline som after throurh sombern








 to Italy, where be wrote his Tratlata de" /entre antwhi one





















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 obstacles were andermme big the sady -upurt wit the king.
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 and Cortagena amd a juint who hat jonnal the revolt ware




 of giants. prohap from haviner son an indivinall if wo




 at loneth Namalhins, comvinceal that he hat fonmat the do.


A<the often stophed for tishang or exploration, a month was werpionl in the parame. luring this time une of the -hipo beeame separated. the erew matimal, and returned to
 the westerne (eml of the trait Xow. 2 B , and saiked out on the acath. which he cathed the Piacitie, on ateount of the pleasant wathor provaling there. From this juint be kept at first $W_{i} \cdot l l$ the $\operatorname{S} .$, and latur to the $N . W$. and W., the erew sufforine groaty from insumbicont and bad food and water, and
 which Warathat callad the Ladrones or Robbur islands, beratler the natives stole onte of the shipi boats-a mame still rodamed for the froup, seeking the Moheces but misinformed of their pesition. the Finmiards kept too far N. and on Mar. 16, 15? 1, diseovered Samar, one of the Philip-
 them with ereat hospitality, crom makiner an act of formal
 Were lanila: Jagabaines attacked them, and was defented and killal, with disht of hismen, dpr. 2\%, 122. It was long hefore the strat of Magellan hecame a practical highway; but this expedition rave to the world the tirst distinct kinw ledge of the J'acifia, and the spanish discovery of the Thilipines led to their colonization soon after, and the devolnmment of the rioh commeree, throngh Mexico, with the Asiatic islands.
Arthomrtes-The writings of Antonio Pigafetta, an Italian whe acoompanied the expedition: the one best known is Irimo viaghio intorno al globo terracqueo (Milan,
 ley, First loyuge roame the Ilorld by Magellan (llakluyt Sine., 1sit); barrus Arma, Vidu y liages de Mernando de Mutullomes (18:9): Kohl, (ieschichte der Entuleckungsreisen
 Male. Mägellats Jiscorvry (in Narrative and Critical Histor! of ilmerira, vol. ii., 1S86); Guillemarl. The Life of F+rdinund Moyellun (1801).

Ilerbert II. Smith.
Magallanes. mă̌a-gianl-yiatuaz: a territory of Chili, inChating all the manland and ilands of the republies. of lat. 47 tu Caje llorm: bounded W. Wy the l'acifie and E . by the man ridig of the Amdes as fir as lat. $5:$ S., beyond which the ('hilian teritory extands to the Athantie, thas emliracing the whole of the ftand of Magellan and most of the Fuceran arehifehero. The arpa, as ollicially estimated, is
 protectly known this is to somb uxtent a matter of conjecthere 'J'he whole region is momotamous, and the coast is brokn by a moltiture of inlus, chammels, and fords, resembline those of Norway. The abmost numberless islands and fundusulas are fragiments of greater or less size ent off by these chamels. and fartaking of the bigh and rocky character oll the mandand: explorations are continatly rebabliner new fassaces in this labyrinth. and it is often found that what was apposed to be a single island is in fact a romernmeration of several. While the suppused peninsulas man he really indads ent atl by some umbiseovered passage. 'Thi fords jemet rate far inland, with mumerous ramifieations. Suary all these rhamels are vory dexp, ame this adds to the thaner of mavigating them, wing to the diffentry of dindins andhorace. The sepmery of this ramion is extremely gramd and suried. the rexke often rising jerpendiendarly to great heophts. While in other places the momatains are elothed with dense pine-forests. (ilariers are nmmerous, shme of them attaining the rea-level. The islands on the Marallance coast were moaly all manod by English explorrrs. The line berins at the $X$. with the Wedlingon oroup. in which the prindeal mas is Wellingon islant, 140 miles loner from $\Sigma$. Los., and siparated from the mainland by a
 rombled liv a molitude of smaller ishamband rocks. Sonth



 'Jiera del liowe are the most sontherly ontlyine fragments uf Suth Amorima. Jom ishad, the ext reme somblherly rock, beine the so-called (ape llom. 'The sombermmost point of


 small lakes and pat-matshes arm momons. The climate is hamp and shormy, show-stams heing fretuent in winter. 'lhmo or four thousamd endomins are gathered in a fow set-
thements on tho anate the bumt impartant buing Punta







 from a magazibe or boppes．

The curliest magazine－guns had tuhular magaines in which the cart ridere were phacel ernd to emt，the magazine



Fig 1 －sjuncer maxazane gun．
under the barrel，as in he lfeury．These two guns were in－
 use in war．They wore and during the civil whe in the l＇s．


 used inswitzorlan！．


 Which the cartridens are phanel and he whe insteal of emb
 form which ant be rapidy terilled when ompty on which can be rembly dotanded from the gan and replacel．




 hox magazines are mote or lese manditiontions of the lave ur of the livermine－linsedl ustem．


## 








Fw 3－is．⿰日月 manzime Rull







 hank．






 and phathel forward into the carimburo

 Waintinlt，an that whor the bagamina ont


 pllther or＂follower．
 magitate axtomblime downward jaw int rear of the thared，as in the law but

 Whan and ind，withot remoning it from





 HyNは























 tritg


 The magatane is pateel centratly ander the receber，athd


Fla．i－Manar
the cartrider are forend from the elin inter the marazine

 switerpland has adopent the schmift symem，which uses a masamediller resembling the old form．

Amether fixal magazine int anded to be filled by phang
 Jorgensen．This fred into the sile of the receiver．hut the


Fig．Krag Jurgensongun ぶorway and ľ．S．survices）．
masazine instand of prameting downward，is bent to ex－ temi under the butum of the receiver the the＂preste side． Where there is atmoth fir tho insertint of artridges．This






 full



＂中ming it swings ont and forward：but in the forms athpod by Numay and the［．．S．this lid is hinged at the

 athl aretions．
 is that the dipo in whith eartridge are pathe d，are ine red


Fia．10．－Mamalieber gum 1.1 untrian）．
with the cert ridese into the magazine cavity，so that the clip forms onte of the werking gate of the marazine．［＂nlike the shathathle magazine fromer． the Mamblicherelip（Fig．11）dues not contain in itelf the soring and eartridur－－fullawer，thees he－ ing fixed in the marazime vaty on the gan，and mate to gheh the cartridges mu thrmath the alip and feed them into the renover． When the eartribses are and fed wit of the matazane，the clip falls from the battom and a nuw fall （elij）is insertel．l＇jig．12 shows the form of Mannlicher magazine whontef in（iermany：Magazines of the Mannlicher tre have heen ahopted in Austria，Bumaria． Chili，France，Hollam，Dexico． and Romanaia．
The we of box magazines has been greatly facilitated by the intreduction of cartrides having
 ridge clip． duells with grooves or emmelured heills in flace of the flanged heade of the ohber cartridges， which hal to werlap in the magazine to prevent their eatch－ ing．The new form，illuatrated in the（ierman Mannlicher，


Fig．12．－Manalicher gun（German form）．
allows the cartribues to be arrangen smmetrally in the Tlip，so that it can bu pared wither way in，in the magazine． The cliput the ald form noed in the Austran dambicher is shown in Fix． 11.
Must of thio buits used in tho breerh mechanism of maga－
 －nf the general typ of the fieman nembegun improved in tho Mansur sing wefire gun and other well－known bolts－ hot the Austrian Mambicher rifle illustratos a form in wheth the halt is mowed be the elien forward and back ace tion of the hamd，the where of this system being to inerease the rapinity of manipulation of the nrm．The Swiss ant Mexisangeme alon illhatrate this system of loolt action，and they haw mundmonts for tiring tha gan atmationaly on resine the beit．
The Frodidi reon rifle is an antomatie magazinc－gun in whinh the bared is made to slip the the har in the stock，un－
 withlrawing the holt and eloning it herain，at the same fime

 berpine the dinger on the friger until the magazine is ex－ han－tad．

For－jurting fornens thbithr maquanes are still much nomb．orporially these whioh are urented by slides in place of the levers of wher tepes．Two forms of this chas are
pomar on shomen and wen on rillm. The firt. illus-
 arting on this principhe. has a bandle upraten hy the beft

 In the wemm form, the burges, the hambe, which marrios
 operateal by the right hamd, leaving the loft hathl in fhate th stemy the inarel.
A. II. litrobled.

Mardala: a mountain-fory ress of Abwimia, atmond on one of the threx pethes of the spar which kine 'lharnlore

 about 9,000 fret, and are separated from tatherther by whe
 tress standine on the top of the stop peak, ame 'lomonom
 British expedition, was created Baron of Magdata.
Magdalena: the nothermmot department uf 1 'hombia;
 santander, and W5. Wy the Mardalera fiver apmatherg it from Bolivia; area, induling the (bajira lowinalat (ate (iosura), of(90) sig. milw. It was fomed fom the wh
 of Geana: (bajira was athollod to it for abminatrative
 branch of the Eastern Cordilhera strethes morhaw and ang
 lomes and siorra de Valle-lopars and in the wothern part
 tams, indadine the Siproin Nowh de Sunta Natat, 10.015 feet hirh. Surroming this gromp and aremying all the central and westorn fortions of the departmont are bow phans partly eowed with forn am? partly with extomene grawy atrethes or hame: laree pertions of them are

 laker amb several large rivers which then to the Maglahena.
 are thanty impartant industrios, thomsh the departmon is said to be ridh in minerak. 'lom papulation is in a back waral state, and hardly a third of the torritary is inhathend. Jope (estimated istor) 105, (000. Capital, sama Marta.

Herbsitt II. -smith.
Mardalena: the most imporfant riveruf (obnhhat furmine, with its branches, the primipal fluvial statem of Sorthwestern sumth Smarian. Themain river is abmet 1.0 .01 miles
 of the Cohmbian Imber. It rises where these wains join. near lat. ? S., in a high porumo, chan to strams which flow to the limific, to the canda and to the cangetio, a branch of


 anel far below that the Madatera has the charatere of a highand river, flowing betwenn stapl bank and offor in
 miles from the sea) the whole flome in (rawdent inter a de file 400 foet broad, which has been hridered: and the I nequaturn or Narrows of Carape behow Honda, is las than ban fewt



 river in this lower wemb in sill bery suift, and the pavera-


 at the parting of thew manthe bightelranght -twalmat























 (luke viit. ?).











 rommmatation with the onter werld racep hat theraph.


## 












 several fine haidinge, amaner them a limhin athedral of













lawime the W. 18. Shaw.




















 What! :mallo








 form chamals lutwern the Fraerian ishask: enme of the

 thot is free warerway : it conly jort of haphtane is lonta


 otheres it persent it in much used liy stemmers, hat its


 Strat of hemaire (hisenced in 161, s. Se barwin, logege
 formation fitheting to Mondlan . Struil. (British hylrographe ollew ; and Cominghan. Situral llistory of the Eremita of 1humen (1-ら).

11embert 11 s. smita.




 d. France に.31: proshont of the consulting commatte on



 phridues, orperially in that if the nervons shatem, and




















 antiquity. "rishally the name wa- a tral one desmat-



























 Mediat. A. hus was a refomer, hewever, his religion mant have differed some what from the ehare faith. (an the ghes-
 faithose \%nknatek. 'The name of the Mani. furthermure,

 Hasi. In this cometion their name in emmenty aseotiated with (haddaran magh.

The general peliginas whets of the Magi prests may be
 uther cha-idal writers, and by infermen from the dersta and from pasases in the ohd I'rwian Inseriftions. The Magian fith wa tharaderized thy a beljef in the prinejples of dualim. Ormad and Amiman; hy a belief in the resurrectinn amb a futhe life: by ectain pernlar rites and practices. such as "xporing the deal to be torn be does and
 with the exception of heotrevine moxins animals, whed was requaded as a meritarino and sared duts.
 divination was whapread in antignity. It was in this sene that the hagi who bime to woraif at the manger in bethehem (Xatt. ii 1-12) are rexarlen as the wise men from the bast. Later malition mperemts these Marians as thre kines, (anpar. Aclehing, amd Balthasar, coming from lifturent phaco in Peraia. The suppoed remains of their hallowed lonlios, it is rlamma, were remored from Constantimople to Milan, amd thener in a. b, 1 lite to a shrine in the
 relics.
A. 'V. Wilhame Jackoon,

## Maggiore laton: sim Latoo Matimpre.

## Maggots: sim Dimpera.



 (all : the petmend art of working womber by sumernatnral f"wer. "hongh ledulaly herived from the arts of the Magi, or oha leman primbond the belief in magie is mhernt in man, amb hivery pront-nu instance of any race at any time in whish premders of have not exisent. It is aribut that tufore exat sedence was fombled, on while stmbent were unwermel in seathing into the
 mint of a First ('anc: amf while they were led astray at abry tup by the wombertul in hature, it was impesible mot to helicio that there existal some primal dew by Which alt hombules, lath of the st nsihn and the spiritual

 anders aml power of powers. Io all that was poitive and intelligible (onald he ropmontell ley momber or expresed geometrieally, it was maral dmang to asome that the mysterions and sirithal war shbjert to the same laws.

 Phatand their followers. The hembonly himies had cer-
 ind light, hemt, ath houlth. This was exagerated as a mather of conve until it was believed that all the planets in their renjumetions han perblar effects on individuals.
 maties, and in this sfirit they matnally became more and

 fre elements and to a prime mutrome which, once apprehombeli. comble anah, mam to dewhpo make any later
 anl a mivaral panata, gust an the firs principle in as-
 Leollike how berge if all that the sans gemmend. The next stap wa to hrins thematal pine iphe into harmony with


 in the sixtembly entury, hedarm: "There are fom cle-


 paning lye the mainu af $i$ into tha ramber of 10 , there



 At the base of all was the fifth element．＂the ditam atral spirit，＂the intelligentia abscomtite of Vausham，the 1 ram－ seendental principhe or puwer，＂that spirit whinh fion him－ self breathed into man，aml be which man is united nean
 －are full of wombers and myaterics and are＂मrathe an in Magiek Naturall，so Divime For from these prowed the bindinge，loosings，and transmatains of all thinse the howing and foretelline of thins to＂omes，the drisur forth
 suble spirit stremmed thrmeh all mature a the oparit or very being of stars，mountains，mers，tres，fommains，flow－ ers，leaves，gans，metuls，herto．establi＝hing betwen them wombernd allinitics or a grand signohure retum，bewwing on them wecolt properties．cither merliat or masmal and impressing on then by dive art in their enrse，lines colors，or spets a sectet aphathe and written lamemare The slars in the heavens whsided as fuints，when den－
 ＂the greatest similitude with eetestials and flus worla．＂ This peetie and pictaresque prineftle of maric，whicla mate forests，fommams，and gardens，with the sars abow，a lit－ cral library．was eurionsly eet forth he Jacques Gatfarel in the Curiexitez inomyes（Romen，16as）．Chuljectimt！，thi－ astral hight beromes in man the intellerlus illistrutus，or maric perceptive power，which，united twa trandownot will proceding from illmmination or perance，wabled ham to prap all the myorics and power lidhen in the divine
 the same with errain pands or extain divine mantwre or times（time itadf heing a form of divinity），all of them con－

 cially，when marked at fit thes with sims of the profer
 charms which poteden the hater from disame，esil apitis． or death．Hene the emblew dharms，balimans，and whater
 ing to know，and from whforine with the shivis of nathre by moms of prater，will，and commanom with（iond，the er was but a s＇pe to eommome with the dead and call ap their spirits hy the ant of necrmanes．which wat proferal from
 Wre drawn loy phant charme and cormonion：the dark and evil juw re were wom he horros，be miduight ineanta－
 of in，Matheth．Ster Axmos．

When the Terot．ar intinite．spirit of（iond，ur lion in mature．Was atymeal to he in all thinse with a rumpowal ＂मpereation spitit in mam．it was wenm heliewd that in－
 of the Cabhata，or the montical exphation of the Bible． the art af lintine erove by the drempunition of woms． and that of working miractes liy virtue of there word－per nonnced in a particular way．＂．This kind of mavio pent ably existed in Eieyp amd Linlia，amd it was kmown th ly－ tharoms．The rathin ley manc of it dednewel miveral
 bing to the element－，the art of soweming them hevelle．
 and small．The natue of dood pronerly promunent wore
 The Cabala was mun tuelied in the fifuonth and wix－



 bmarimary．sect of maricians．in whom mame mata！lank－ were written，were an otthont of the＇ahbahn，allinit for the pecular views of the aldemit－and（hriatian motion

As magic embracela mathal harmong of all that vin－ it incluted gonal and evil．Howne white or haty macio nat also batek mani－＂r worery，whioh worh，ha the aill uf
 Celestial maric wan fommon un pane ion（onmmanma


































































1 月ルになーな．1．11．187．














 1：4np，wlarl， j










Fig. 1 Thm magiv labtern.





 light intor the abarmandt.

For a very lubs tina aftor its invention, the matric lan-



Fig. :2.-The phantasmazomat lantern. (o) sururise or to ammor. It was in hish estemb with profesional conjumersand jugqlers, whof foumd in it a means of producines startlinar efferots. i eomstruction math thapdoyed by them was thi phantamararia lantern. repres suntal in Fig. ©. This is a lanforn summarled hy at atame on whets, and decigned to rom upon a horizontal table. One of thosa wheel carrien a pulley. li, whiolt is commeted by a band with annther fulloy. $\dot{R}$, hiarher nj. (on the axis of the balley li ja a cam. arainst which we axtromity uf a bever. Jons. tha ather extromity artine on a sliding tube carryinig the matunfying lenses withan the latrer tuine. "l'. "lohe propertions of the cam and lever are such that if, when the marnition are at the mearest pacticable aforoanh to the whion, and the size of the imate is therefrote a maximam, the jantorn in phacel at the distame from














 impressions that, by mans of ambler smplo enntrivance,









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resenren and to have made it an incaluable anxiliary to the
 valebim liaht, or, fuefter still, of the vertrice light, for the ail-


 high domere of ler fection. here Lasi-1.tiant.



 so as to have a fommon luminoms tied! ngon the areath. Gach has a dilfarent wheot. and the two imatere when supere
 rotatiour stop plated hofore the lanterns is so conal rueted as,
 one while it opens that of the "hater. At the mean perition, both are half enven and half efosed ; at entherextreme fusi-
 mowemant of this stop therefore canses the jmages alter-
 js takion of the moments whan the lanterns are sheressisely colosed to chather the objects, so that eachelisodution is fol Juwne be the prosmation of a new pictare. When the cat cium light is nad, a stop is not meresary for the disoolving effect: lot this is produced mome simply by erathally and
 the light En the lanterns severally. low thi phrume a sixway rork is sumelimes employod. A form originally introduced by b, $f$. Malden, of the lioyal Polytechaic Instituion, lambon, and catled the "Maldum tiu," is rop)nosented in Fig. ? The gane enter from the residroirs throush If and o: they gass to mo of the lantern- through if am Ol and to the other through $11^{2}$ and O!. Whan the lewer is lugight as in the figure. the was fows to both lathturs fredy: whon it is turned down to the risht the supply to the befthand lantern is ant off: when to the left, the supply to the right is cut "iff.
 I small rouk at ${ }^{\prime}$ alfows a small quantity of hydrusen to How ecimalanty jnto "ither dantern, serving to privent extinction when tha ${ }^{\circ}$ light is cont off.
lat the illastration of selentafie subjets by means of lantern whas, it is Prequently desirable topresent aljeets which can hot be secured in it bertjcal frasition, as, for instance,










the beam la the horizantal diraction．Profe llany Mar









 the manipulations of the lantern，etco，sie lhitherar，Tho－Irt




 straight lim＂．horizental，vertiont，ar liagumail． shat be the samo．＂lho mast familiar form of masia－－puare is that math with the nime digits，armaneral as in the diampan．llare the


 straiorlat lime amomots to $1 . \%$

Tha following shows low a marice suatre will five mam－



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| :---: | :---: | :---: | :---: | :---: |
| 20 | 13 | 6 | 4 | 29 |
| 9 | 3 | 25 | 18 | 11 |
| 23 | 16 | 11 | 7 | 5 |
| 12 | 10 | 3 | 21 | 19 | tine I athewhore withor．．li in tho



 lines when at manalue fiall－in hanc


 one in therimh form I．Sart from



N1wいい日友













1．11．Jatactat．























1．N．（101．41）．














































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The 1ireta： 1 h．are
rasl－at ：allual at limat

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 thome whinh hematand for the whale mation，for the entire lonly if frownat．The furmer wore hared bion the then





 fonstitutiona，hational and state，＂f thel＂．A．Amoner the artiolth delinime the fomblat relation－of the barons for the







































 tha y＂tre month whit the ehassites．













 Certain abmant at literary anal athlotio asociation with
 shorahbe gart in its military and palitical movements．
 －ja were the tirst calnes of a derline in its pusperity，which was further hastmed hy the ageressions of foretgn eme－ man－symonsans，hatire Bruthans．and Lacanians．ama， from the thiral cintury b．c．on，the Limans．In Cicero＇s time Jarentum was almost the only cily of Magna Grapcia which still retaimed vostiges of earlier importance．The simniticance of the desonation Magna Gracia is not alto－ wather ehar，but may have arizen from the sumerior wealth uf theae eities in the sixth and seventh centurges b．c．to the cities of（ireece from whicl they canne．See lenormant，Lat （irunde－（irtct，I＇agsages et Inisioive（3）vols．，I＇aris，1881－84）．
（i，I．Ilendrulison．



 aगmeinted physioian to st．Amme Ashmm．Ias written a number of pajuers on subjects comberted with dineases of the mind and if tha morous system．llis more important
 fonligur，et de lam truilement（l＇aris，lsid）：Recherches sur







 the ministry of Fimamee，and in 1－3，Ministur of Publie
 relatine to the intemal folicy eansed Dande to change his



 tha new great lan．When Napulan tomed the cabinet of
 Gher matr．lowever．he tomk rharge of the ministry of


 18．29．

Marnorian：the nathu of two ancient eities in Asia
 from Milotus aml Yphesus，fanous for its temple of Arte－

 of Singrm，at the form of Nt．Sipylus．celebratied for the

 the linmanalatel the fumedations uf their rula in the East．
（i．I．Itmblekson．

## 

Mastorsinm：$n$ light，silver－white metal．Its ores are

 （other widely distributed atml ahumbat matumb compounds











the form of filines, wire, or ribtun, what a light of dazaling brillianes. In this alon it is like zine. Which will burn in the sanne way if in sutliciontly thin foil.
Magnesium does mot rust ruphilly in Jomp, air, at thin, white lilm of cartmate forming. which, from jt- mowh





 fum, the mond burntant of the metals of the future.



 1 of puwdered thompar, ind 1 of motallie malimen to at
 are sequrated from the mano, ant paritiod hy diathation in a curron of dry helrogeng gas, it : white lact, in an at at
 for casting into ingents lysing, umber a flux comporat of

 the form of ribhom and pewher for penlucine brieht lights

 1 part shell-lace and if garts harimm nitrath, arimding ant maxime with as per cent. of powdred marnminm. Fied
 the 6 parte harimentate nisel in making white fire, the



 athl the ehboride. No ${ }^{2} I_{2}$.


 which is very diflicaldy solahla in water, formitur wilh it

 with water athe expmend to the air, it homber very hard.









 salts ate purgation pondecing watery dischatere. white at the same time bot imitating the intatinal macou- mom-
 the virtaes of an albaliand a mild parate and are anomed-





 used, further, in the manfacture of onlinu -alphater, ant




 in the form of the whideal atferemansentation of the 1 lobarmatoprail.


















 watil the twalfh andary er tho reationts that at was di-










 refure to as follows in the intontan?


 mat "manate from a mathermational wime lant form tho parts




























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 The magrat. are than mosell lath athl firth until the bar in mayndizel. 1. lighty difforebt mothent is that of sejumputed or diridal toums. in




















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 tiont of the eheotro-matrone the do-

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 $\div 11.15: 3000$. 'Phese furmalas are -trictly tran only when the imblan ion is maform: whare et is mul uniform,


 tro-matymas. $A$ fall ameonat of the +lettro-marnot maty be foumal in The Elretro-mathet. hys.



 (1. 1.).

Frederfl Beldella.
Marnetism: a termapplied (1) the fhenomena ohanred






If fime filime of and iran be milmonly sifted over a plate of orlase wo shatl observe that tho distribution of the filings is inllatmon! by the gustion of at matert introndued he-





 "arment is simber to that in the meinhtrarlowal of a magnet.


 -hamed that the mandethin of a plece of iron wa-indlaned

 ont. In that bear l'rof. (hersted, of (onpenhagen, manla




 in the sciuntite world. During the folhwing year Arago,


Fig. 2. - Magmetic lines of force aroum a straight wire with current Howng upward
in France, amy Jays in Finglan!, shower that iron filings phed in the vicinity of an "ledrie abrent bectur magnotized, amd Ampere, of the Fremelt Acmamy. published his generalizations, whide formed the fombation of the scienee of edetpo-magmetism, 11 showat that not only were magwotic balies influmed by the pasenge of a corrent, but that
 that parallal currents flowing in the samm direction attract, anml that those lowjng in opmosite direetions repl. "Tluse early experiments demonistrated the fart that a cortent of electricity establinhus manat itselif a magnetie tiedel pesmesual of the same |roleretios as the firda smronaming a marnut. 'la he diredion wf fho lints of foree in this matmetio fieda furm ronewntric cirform will the connluctज10 at the conter. as -hown in Fig. : 'The
 hetice finls contathing



















 at every peint is inermand, and, if ther i- man mathe ont. stane in the region, the intersity of the didy i- buepand

 generates. A mit enriont is that wheh, fomme in at ar-


 rent; but the practical unt, the ctmpiot is chententh of the


 the cirenit in which the curent thes. By a magnetw shat
 in the direction of its thickatis. 'The strenght of shell, $j$, is equal to the magnetie moment per mat of area. i. e. $j=\frac{m l}{A}$, where $m$ is the pole st rength and t the distane between the poles of tha marnet with cranemention A. A shell of unilum strengha. $j$. hatwing the same mambarios an a cirenit in which the current $I$ is fowing, will exatly refluse the currat,
 ie efferet is com(4.mand, whin $I$ and jure numerieally colual. The matyotic futatio tial at a print $/$ ', at whied a a chatal -ircuit earyine a Murpat $I$ subt tronts at sulid an-
Fio. 3. -Direction of magnetle force set ui in a suldroid.
 netiofore set un bey andent is shown by Fixas and is.

Electro-mugnetic Imdurtion.-We hawe serom that at magnetice field is set up by a carrent of contricity. Of equal importane is the fact disenered by Faralay that an elect tromotive forece (B. M. F.) is pronduede in a conductor which is moved through a machetio tiolle so as to cont the marnetic lime of fore. Thismectrantive fore indiredy gropertional to the rate at which the lines are ent, and is in a drection at right mughes the direction on motion amd also to the ditertion of the lines of fores. Fimatay further showed that if the manotie induction, I themplemt any Gosed cirenit the variod ly any meams, an E. M. F. is deveiofed in the cirenit poonertional at any instant to the rate of change (increase or lecrease) of the induction at that instant. This change in magnetio inture ton may be fromuect by an alteration in the pasition of the circuit in its relation to magnets or other cireuit, ar to a variation in the intensity of the comernt in a moighbering comdutar of in itself. However the change in the indurtion is prowhered, the law always hods, and may be expressed by the expation $E=-\frac{d N^{2}}{d t}$. The nogative sign imdicates that an bedro-

 unit of E. M. F. is develomed when there is a chane in the induetion of the cirevit at the rate of cone lime fer senma, or when the conduetor is cutting one lime fur womb. Tha,
 unit just defined. If the eirenit in which the induction is changing is chased, the E. M. F. permaend he this thate will canse a current to flow in a dirention on an to "ppore the change problucing it (anzas law); far panmpla, it the fied is increming in strunth, the current analame will tend to weakem it hy semding lines in the of pasita diremtion. Again, if the efortrmation fore is protured by the motion of a wire, the curent indued will exert afore whinh toms to resist this mution. This law is a partiendar rase of the

 inclosed be a cirent is carion, mo matere what may the the source of the line or the vane of the variatios. Any variafion in the strentith of the curreat it mold wall grimume " variation in the tield whith will induro an F. N. F. in the




























 flow in a cirevit that acemat of the change in the zamber of limes which thread it is erpal to the thanse in the number of linm divided by the mitance, i. e. $Q=\frac{\lambda_{2}-\Lambda_{1}}{\mu_{1}}$. This is atierely indenembent of tha maner of the dange mod the



S'mergy of to Jhognter Fiell.- When a curtent is cemmed


 current ind the selfoindation of the circuita and i- mpal to
 thie comery in returned to the cirenit. and toml to manan the flow of current, jus an the kinethe energe of at mondines fly-whed tembs formintan the retation of the whel when shwing down. The eberey of the find inemase nold de-

 Thas in the thate dh the ehange in the find eneryy is $1 / \frac{d}{\text { d }}$ dt,



 turand to the circuit, jart of it homblint due tahastorests.
 fieldi $5^{3}$ erge fur culice erntimeter ${ }^{3}$ - (wherefis the intern-
 most diretly with the fermotality until aturatam is raindod.





 which tembe to sherten them.
 tive prwar of magnets, and is
 centimetar. The tomitan is anly dialityed at the paintwhere the line rater the iron. jut as lla tamend of a
 dent ouly at tha frint at "hich it "is attanhoul. If at


 tiold of imtolats, 5, at will lx







 the armatare f a dy nathos.






 well, Nascant and dublert, and Ciras.

## FMBHRMGK Bedeha.



 is ley far the mot imputant of the maraeticemals. Nickel


 preciably magntio. If a maneelized mexdle he thrust into


 For comvoniture in tha staty of matat inm. however. we








 comtimetur away. In thix definition it is asomment that the










 versely a the square of the dintance lectwen hem, and




 tween two marmutir fulso is then $=\begin{gathered}\prime \prime \prime \prime \\ , 2\end{gathered}$. When the two
poles hate the same dien. the prombet mom is positive and,















 the lomblow y


 A hare of forere is an maginary line whiol Amos bes its


crutimetrer: and when the intensity is $\$$ there an 5 limes of forceperstuare witimettr. Thasthe intensity of a madmetit tied is comsidered as buine determined by the momber of limes whicla pass through a remimeter of a surface normal to the direetion of the lines of forer. When limes of fore are imagind as drawn in this way so as to pive the magnitulle as well as the direction of the force, they are commonly Slobin of as e. di. Simes. By the definitien if a unit pole
 from the juile. If a phere be desoribeal about the unit prole as center, having a radius of a centimeter, there is comesguently me line of force pasing through the surface of the sphere fur every spuare cemtimettr. As the surface of a sphere contains $4 \pi$ sy. cm., there nere in all $4 \pi$ lines of forco that emanate from a whit poln, and $4 \pi m$ lines from a pale whose st remeth is m. The magnetic moment (D) of a magne:ized piece of iron is detined as the distance betwen its $t w_{0}$ proles multiphied by the st rength if one pule: thas $97=m$. Gemerally the two factors mand / can not he coparated, for it is the effertive stremeth of pulde that is required. If a
 temsity 5 , su as to make an angle $\theta$ with its josition of equilibrium, the moment of the conjule woming to restore the magnet to equilibrimm is mhs in $\theta$. Hagnetie moment is aceurately atiment by this relation.

Magutic Induction in Irou.- When a piece of iron is phacer in a magnetio fitld, that is, when it is subjected to a marnetizing tore it beonnes magnetizet, and if the iron is inotropice this magnotization is in the direction of the magnetizing force. The amount of this magetization may be expresed in varions ways-for instance, in terms of its magnetic momerat, alrearly defined, intensity of marnetization, mannotic induction, ete., each of which ways has its advantagrs. Masmetism is sometimes eonsilereit as consisting of two hypulatical fluits, positive and negative, cyual amonnts of which appear at the ents of the mannetized bar. The midile jortion of a unformly macnetized bar shows no jositive or nequtive manetion, for the poles of suceessive elemantary magnets mentralize each ot her. Although magnetism is only displayed at the enels of a bar where its unnentralizal pules exist, the magnetio state is cont innoms thronghout the har. If we cut the miformly magnetized bar into pieces of any shape whatsoever, the mannetic monnents of the separate pieces are propertional to the volumes. The magnetic momant fer unit volume is taken as a motasure of the magnotization, and is colled the imtensily of mognelization ( $\$$ ). For a magnet of uniform crussertion A and length $l$, $s=\frac{M l}{v a l}=\frac{m l}{l /}=\frac{m}{-1} ;$ that is, the intensity of magnetization is equal to the pole strmuth per unit of polar surface. The intensity of madnotization is a function of the magretizing forco: the ratio of the intensity of marnetization to the magnetizing furco is called the maynetac susceptibility ( $\kappa$ ), and is debembent umon the quality of the iron; thus, $x=\frac{\mathfrak{G}}{\mathfrak{G}}$ We have sirm above that $4 \pi m$ lines of foree amanate from a
 aron with intemsity of magnetzation s. There will emanate
 tre called induced lions of mothotiznlion, and awe adeled to the linas of foreo $\$$ which marnetized the bar. 'The
 squart rantimeter is $6+4 \pi 3$ : that is, it is the sum of the masmetizing form (lines af fore per square centimeter) he fore iron was parell in the fied and the induced lines of magnetization the to the greacme of the iron. 'This quantity. the tom mamber of lines of foree per square remtimotor, is unally called the imdurfion or the magmetic induction. designatud hy the letha ${ }^{2}$ : ur $\boldsymbol{x}=5+4 \pi 3$. Tho

 In air or wher non-masmetio shbsinme the marnetio indurtinn is repal to the mandetizine forer, that is, $\mathcal{P}=\mathfrak{6}$ :

 irnon. Tha mation the induetion to the matmelizing fore is called llu monfutic permerbility $\mu$; that is, $\mathcal{B}=\mu \mathbb{5}$.


 may te whamed by diviling the equation $\mathcal{Y}=5+4 \pi 3$ $b y s$. We then have $\frac{\mathcal{H}}{5}=\frac{5}{6}+\frac{4 \pi}{6}$, or $\mu=1+1 \pi \kappa$.
 the iron perpendieular to the dirertion of masumization,
 netizing fore 5 , and the indured hame of mathetimion





 beenme algetraic whon the indimn in intrmp.

Hork dane in Moving a shanctic lim. - In masing a magnotic pule in a magmotic dird. work is Mome rither by
 two magnetic pale of trengthe $m$ and $m$, and that $r_{1}$ is the

 $r_{1}$ to $r_{2}$ work is dunc: "The Work dene ith thas masing m'
 done in moving in now an rement of ditane ds with an inerease dr in the distanere from the maname jule m. The force betwren (wo poles of atrenatho ment mat a distance $r$ apart is $f={ }^{m}{ }^{\prime \prime \prime \prime}$. This furce may be comentered constant white the fula $m$ ' is moving then meth an "lement of distance as: The distane thronsh which the bele in mused against this foree is $d r$; bence the work hane is $d \mathbb{I t}^{\circ}=$ $m m \frac{d r}{r^{-2}}$. To find the work done by the masurtio foree in moring m' from $P_{1}$ to $P_{3}$. this rxpromen mat be intograted hetween the limits $r_{1}$ and $r_{2}$ : thas $\|^{2}=$ nom $\left(\frac{1}{r_{2}}-\frac{1}{r_{1}}\right)$. The work done rguinst the mandictic foree is $m m\left(\frac{1}{r_{1}}-\frac{1}{r_{2}}\right)$. This wark is indelumbent of the path, dee pendine dimply upon the pole strenshes and unn the initial atel fimal dionamon

Mugntic lotentiol- - If the divanere $r_{2}$ is infinite framhere that the pale $m$ is carriod from an infinite distame to a phint at a diatance $r_{\text {a }}$. the work done arabint the magnetic force becomes $H^{\circ}=\frac{m m r^{\prime}}{r_{r}}$. If $m$ is unity, meaning that it unit pole is momed, the work done berombes $W^{=}={ }_{r_{1}}^{m}$, It is seen that eand pint in the region orrombing a magetic
 amonnt of work dome in brimging a wait mathetic pole from intinite to that wint. This phatareristice of the point
 tial I'at a buint is therefore detimel as the work hane in
 point: thas. $\mathrm{l}^{\mathrm{r}}=\frac{m}{r}$. This punential is pusitive when the work done is pusitive: that is, whern work is done, in moving the pole hy some agent extrmal the the sam. The pmentian at a point due to a manher of marntio julas is the sm wh the



 current and the suld ande which the cirenit whemp as seen from the fuint. It may he hown that the work hane in carrying a pule arname a wire is whibla a corrent / i-
 Sturns aromm whith the fald. is carried. tho work sild be


Magnetizing Fore of on 1 Imfore Torn.-Whurn a hut

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 bar splatre centimeters. Alhouph tha lates of the eleotric and the marnetic ceremit are similar in many resperes, it
 It repuire on compgy to matatain the mametio flow wher
 law for the enteray whill is rontimally diasiated in boat

 tance. Enammothas the former is appoximatoly ematant for



If two jatha are open for lines of fure they will divide just as an edectre corrent womblob betwen two wires. In


Fig. 1. - Curves of magnetization. acireuit mate up of masces of irom of different ai-2010-inns amd pralities, tho totisl Hagrevite ras sintanee, for the prorticuldr inducfion used. may locomputai by summing и! the separate resistances, just as in the case of ant electrie cirmit.

The Jugrertir Propertics of Irma-(FureomWete treatment see Ewiner, Magnetism of Iron.) The manmetie yruprties of iron are bext shown by rurves of matatetization whidh show tha relation betwon the masnela induetion and the
 are thown in frig. 1. from exprommatal lata notained by





 tanmont of the aty zuntal is at manare of the parmability: that is the ration of 2 tor. Jit the ense of wranghe iron, wo soo from the curre














 innarand with the increase of $\sqrt[6]{ }$ for $9=5+4 \pi \overline{3}$. If,


 us lar descombing cure of musmetisution. It is found that the value of $\mathcal{H}$ corresponding th a criven value of $b$ is always
 is incrasing-i. $\cdot$. the deveending rurse lies above the us-
 piede of iron aftor the matnetizing fore is removed is valled the residual magmtism. Itsamommt in the ease of any fivens sample of irnm is fund los depend not only on the 'fatits of the irnm. hut on $1 h_{4}$ shane of the specimen. $A$ hart har. for example. on areomet of the demagnetizing inHarnee of its imducod folles. will sow very little residmal maguctiZation : while a rimg of irom. exan though quite suft. Will remain stroner Iy marnetized for a long time alter the magnelizing forme has heerl withdrawn. siaser, in the latter casp. the marnetic "ureuit is elosed, there are mo poles to exert a demagnetizing influente. Fig. Ishows the leflavior uf a ring of suft iron whern carriod throbsha
 complete cycle uf mag-

Fig. 2.-Cselic curve of maguetization. netization; i. e. Sistirst "arried to a maximum in the positive direction, atmen reduced to zoro amd currical to an equat negative value, and finalty Hrought aranin to zero. After this process bis been repeated sevaral tims the curve will be fonnd to reprat itself. The residual marnotism of the spmemen is shown by the lime OM or ODI'. 'The value of 6 which is required to destroy this residmal mandetisu is cillowl the coerche force, and is given in the tigure by oN or $O N^{\prime}$. The resilual magnelism of soft iron is very high (from foto to jer cernt. of the lotai imbluction), hat on aceonnt of its small correive force a short trar uf iron will re-
tain seareely muy magnotizationafter the marnetioing foree is remowed. ('ast irom and stee) shaw eonsiderably boss resillaal mas. netisur than suft iron when in the form of rimes (40 to 60 Jur (onit.): but when in the furm of hars, their high comerive furse enahas them toretain mone resilual mage netism than iron. For small magat. iaing formes (loss than 1 (.. (i.s.) tho permonbitity of soft tron is bury small.


Fia. 3. - Residhal magnetism in wroughtiron (•) \&. alout lino ita
one abo. 'l'he rasilnal magrotism in such eases is also a bury small fration of the total imbueton. Ther residnal
 thathatic propertios of a metal may atso be shown hy eurbers whirh show tha valur of the jxrmeatility for difforent valHew of the magrotizing fore or the magneticindaction. It

Fig. 4 a curve (Rowham) is given howing (lue lwombility of a ring of Norway jron fir ditherent watues of the mindetion. The specitic magnetice restance (theremprosal of $\mu$ )
 are sometimes used showing the relation betwern the inten-


Fig. 1.-Prrmeability curve. sity of magnetkation 3 aml the marnetizinge furres. but thene laller but buthe front those showing ther relat iont ha* (werol) 界 amb 5. 'Ihe curves here given are typural, hat the rosults will, fur bifferent spenimutis of irna.
 composition and proxess of mannfature.

Mysterasis Losis. - When a carrent flows in a rideuit, energy is stored up in the magnetie tient. When the eurrent ceases to llow, all thi* entery is restured to the circuit if there is mo meirhborime marmeticemateral; lout if the fiedd is in part set un thromerh iren or other masnetice sulstance, some of the eneray is disipnted in hyateresis, increasinir the molecular enery ${ }^{\circ}$ of the irom. and bily part is rontored to the eircat. Vor any cyelic chanme in the mannetiantom of iron, the carve showinis the relation between the intensity of magnetization amd the marnetiziner foreve farms a loof.

 is drawn so as to shaw the redatinn hetwen of Hud 5. as in
 The persistence of the marnotio state dub to hyoteresis
 diately after a reberail of the marmotiander forere "flas is shown ly the nearly horizontal direction of the entwe after reversal: at this timm dis may le less than 200, wheras it is often orer 14,060 at the steppest portion of the curse. Ifter a loop is formed (Fig. 5) by the removal and redaplimation


Fio. 5--Effect of removal and reapplication of magneticing foree

Moreover, the gradient at ant point je mot dixal. W"hor







Fia. f.- Effert of previmishistory hom curst of makuedio zation

 that of 00. Whatio

 Thiv projulire of thor irnar and not In kinwow whanst a kwow! …sor of it frevente latorys. It mav bu* fotmonel ha domaimmatization ly reverab. No.la-

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 Histar.









































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 intr formo the fermeahblity $\begin{gathered}\text { hamar bat } \\ \text { and }\end{gathered}$ litile with tho ternpryaturt, bat timally fall will la zoro at -5. In amora 11 . alld lll. in lige is chann the variation in prrmanhaliIf for matutaxiat

 ly. stren growhaos

 labiner mand markod in The vian of hamel. r-ach tham anmatem iron. A menderate pall incrasen the formeability when


 its. Vibration dimintore all ro-


Fia 9 - Imerogse of mag.
betration with time. silual antimas and facilitates the reftrangoment of the monarahes su that the fonly is more frem to as--1mer a new state: thas there is

 igation. 'lhis wifort is eroatior in soft than in hard irnon, 11 is very grat when the manderizine forex is small, lat is sarcely noticomhla in strung fidhls. Jlhhomph an appreciable time is taken in chaneing the magnelization of a pieer of irnm, the timelery is small, and is af little proct fad impartance. sinch ratiad is shown
by the eurve in Fig. 9 for the magnetizing foree of $\mathfrak{g}=$ -0nl and lis.a.

 of iron are many and varions, some beotr valatyle for their


 of varions shapes are lad in the hitfernat methods, and more or lus arror from the demagmotizingethects of the ands may be introndand. 'lon aroill there arons we may employ (1)

 thos leneth matal to for) times its diameter), in whith the




 cane of short omes. The cerrention for a honer rol is pratelically the wam ac for and allipmal.



 magnetization mas low andenlated. In these mothots the








 nelumelore otco.






of the bridge shows no doflection, and indieates no difforchas of marnatic potential.

Tructive Methods.-Varions devices of diviled rimer and divided hars have been ased by wheh the tractive foree ean be measured and the value of $\mathcal{H}$ ottained. 'lhey are not
 tur rataly calculation. S. l'. 'hompon has deviad an inat rument, which he terms a permeanetor, based uma this principle.

Vimby's Mayntic C'uree Trater.-Prof. Ewing has devied an autumatic instranent fur detormining the redation botwera 28 and 5 . 'lha instrumedt is - benwn in lotig. 11 . :bul consist of a mirror which mas he wivena wrtical and a lorizantat mownent, sluwn ly a spet of light "ll atrent oblo hmizontal movomont is male to dapend ujun the madmetizing entrent of the testpiter. and is there-
 fore a measure of
G. 'The marnetization 8 is shown by the vertieal motion which is obtained by a wire earrying a constant eurrent. which is drawn into a slit in the magnetic circuit as the indurtion increasps.

Simbistir Method.-This method is due to Weber, and is the one in most renmal use. The induction in the testbiow in made to vary thromeh any (yche desired by a series of "ot"ps" each change beins groblied by a sublen variation in the mandetiong courrent. The instantaneons eurrent induced in a "scombary" enil surronnding the testpiene is then measured by means of a bullistic gothonometer, monl is fropurtional to tha change in $N$ that produced it. The test-picee may be in the forn of a loner rod, but more commonly the magnetide eurrent is completely elwsed and the sample is in the form uf a ring. Now, if the rush of current takes plare almost instantmonolnsly (as will be the ease unless the specimen is without hmimation, and so large that the change in $I$ is retarded hy eddy currents), the throw of the ballistic gatvanometur (for small defletions) will be proportinual to ( 6.6 can be computed from the strength of the marnetizing corrent: $2 \mathcal{A}$ ch of coursw be ohtained from $N$. if the cross-action is known. Torduce the specimen to a mon-magnotio comdition, before berimning the test it shoula] to anmealorl: or, if this is mot convement. it may lie demaynefized by retrasals. The hatter process consists in senting an alturmatige corront thromgh the magnetizing coil, beximming with a rather large value and gradually reducing it tu zeraby introduciner rasistande 'lace same result nay be aemmplished by using a continnons current, which is revorad liy hand and at far same time grathally reduced in intomsity. The maximum comrent shomld be greater than any eurrent that has preximsty hern usel to magnetize the sporimen. Lentes the iron is juite hard, this treatment will ralace it to a neutrad eomditions.
In detmmining hystresis loms, the iron should be earriad throngh meveral eomplete cyeles before herinning the abservations in order to make sure that the curve will rebut itulf. Jroliminary domagnetization is mmecessary. For urdinary "ascombing curves" of marnotization, however, it is viry impurtant that the sperimen should origi-
 tainal will be disforted and uadess. fare mast be taken in using the mothoul of "steps" to make the changes of cur-

 innant. 'l'he riantaner-box by whim the corrent is variod mant le ronst motiol with this perat in viow. A modition-
 is hatrmind from the 1 hrow of the neade that is uhtaned


 ral rambic. but whth sult sperimens it is ofloth more con-

 imblation in masumed by separating the two prits of the
bar and allowing the test-exil to be drawn mddenly awas by mans of a spring.

Theory of Magnetism.-lnasmarh at the phemomena of magnetization are manifested the thy upon tha winfer, it is matural that one of the earliest throrm homblat but in which magmetiom is comblderd as beine canoed by two fluids of "pmaite polarity distributed un on the phar surface. As in tha thories of edecticite, it was -afmed that

 this flutu theory marne ization mantited in the aparation of the pasitice and nagative mandions to the two fulam. Such a theory is mow abmanem, althand rommonly and
 mathemationd wimeption in the shution of cartan probs lems. It is now well knon that the mathetio tan io mon tinuons thromphont the whole tharatel. fur the smathest pieces into which a midnet mas the brokn will eahitit magnetie polarity. We may suppace, therefore, that if we sublivide the magnet into s.parat. monerolos. end will itself be a magnet with a noth and somth prik. The fluention then presents itself. of what dews the proce of marnetization consint P Pomon exphatns the fraves as ransisting of the marnotizationt of ach molerole whatately the molechles are tixed in pation, and theome maghets only when the bar is magutizad. Aecorlimge the Wer. each molecole is alowas a manero whether the bar as a whole is magnetised or not: in an monametized thar these have wo regharity of armagement, am therefore whilat mo resultant palarity. The application of a matuetizing fores
 less parallel. In the interine nf the matuet the molember are so arrangel that each north jule is aljaw it th the wath

 to the canse of the polarity of eash separate momente. we
 earliest exprimentors in chetro-mannetism, onneximed the idea that cirabar corrent are continually fowing in eath molecule. When the molecales are hromght intuan orderly
 enrents in ant two adjarent :monealos in the interior of the magnet will be in Offanio directions, and will therefore ment ratize wh wher. The currents on the outsinte of the magnetiaed bar will, hownor, to nomentralized, and the magnetization is sa to to be the same in effert as a current of electricity thwing armand the bar an a whand. Any theory of maguetation to be abromate must explan the obsserved phenomena, imeluding saturation, revidual mayertism, bysteresis, etco. Inamuch as the application of a small magnetizing force lows not immediately matnetize the bar to saturation, it is evident that the moneroles are mowed ggainst some comothining fore. Whater suppoded the existence of some directive fure by which the molendes were constrained to remain in the peritions they oriminalle wernpied in the umagnetized bar. Vaxwid axtonled Whars hypothesis by assuming that the deflected moleroles arequire a permanent set, thus accounting for the phommonn uf hysteresis. Some have explaned the resis ane thandenar movement as being the resistane dae to frictinn: lut if
 from small magmetizing forees, and we whit! eapert that
 remain in thair deflected pasition worn after the remmal of the magnetizing fures.

Eveing's Theory,-Ewing exphans the phenomenon of
 and Anpere, uniler the assumption of dirertive foree due to their own mutum netions, By this hypotheris he exphans















 ley their own matmal achasm. Papuration would onty tw





























 piace of irun when hodation dae tothe wibration of the molle-

 a rotation at that temperature at whieh the iron hemomes non-mandetic. The limpoley in magnotiantion is explationd
 by degrees, one malernle swinging atmand tirst, and thon



 thenty of circular eartent-; fur, low are thewe curtent



 saying that the resotamen of amblemberond. and that it is



 expain mat what eleqtriejty and mandetabla atially uro.















 along it main of folarada! いon.








Fic. : Setion of a mathetized splere aloner its axisof polarization. pathe. on the colside in wide swepher chrses, as indientet, and on the imide in straght line parallel to the axis of magnetization.

If hi reprents the manetic fotental in the inside of the sphere, $l^{\circ}$ an the surfiere, $V_{\text {e }}$ in the spare exterior to the sphere, $(x, 0)$ the polar comblinates of any pint, then $\mathrm{I}_{1}={ }_{3}^{4 \pi}{ }^{\prime \prime} r \cos \theta$ inville the sthere. $\mathrm{I}=\mathrm{C}^{\prime}$ cus $\theta$ on the
 sphere, where ' is a comstant thowing haw stongy the sphere is magnetized and $I_{i}$ is the ratius of the sphere. These satisfy the fumbathtal difirmatial equation

$$
d l_{1}^{d r}-l l^{2}+4 \pi I=0
$$

"The equation for the line of furer is

$$
\lambda=\frac{\pi}{3} \pi l^{3} V^{2} \frac{211^{2} \theta}{r}:
$$



$$
V^{\prime}={ }_{;}^{4 \pi}\left(R^{3} \mathrm{I}_{\ldots}\right)^{i+15} \theta
$$

 face density of mastetio mattor, wh the axis at the surface of the shate lmpront herival formulas are tan $I=$ 2 cos $\theta=\stackrel{\circ}{*}$ tan $\phi$. where $/$ is the amerle with the timment to the surfate at which the line of foree pioveres it, cealhed the inclination. $\phi$ the marnetio lationke athl $\theta$ the matrotice polar distamet.




















 surfare of the warth in the whthert beminplare, the fra*
magrat will puint showe the horizan, with whide it will


 nequlle woral forint downward, and maky with the jhate of


 the direttion of the linte of foren it will soth tor deame the

There in another mothorl of rerramling this matter, relatof elomety tis the finces of rapleson involvel. All the maturial in the mivare sems loblivide itwelf into two general elases, tirs, that in whith the parts attract ench other, in ateertance with $\mathrm{N}_{\mathrm{t}} \mathrm{Wton}$ : law of gravitation, $+\frac{\mathrm{mm}}{\mathrm{a}^{\prime}}=f_{\mathrm{s}}$ : and seomal. that in which the parts melel each other, in necorlance with the same law, $-{ }_{d^{2}}^{m \prime \prime}=f_{r} . f_{n}$ and $f_{r}$ reprewentine the foree of athaction amb repulsion, respectively. Lilectricity and mathetism include this hater case. Suphose an isnlated positive pale (which it is imposible to produce in prate in were situmed at ans point of one of the lines of force inticated in the diagram, it would tomet to travel along this line under the form of repulain, just as an attractive particle uf matfer tombs towarl the eemer of gravitation. Thus it is froure to employ all the matheratics of the com!"sition and the resolatian of forees in the case of repulsion, just as in the ease of attraction. Fiver line of force las a repulsion at each print frouliar to itsolf, and the equal repul-
 take a mat lemeth of the line of fore at the surface of the eath, in whinh the matuen lies. it may be considered as havinf a cortain total intensity $T$, resobsable into twor compo-
 tive to the nertheominumsly : and reoond, Vertient along the mormal. pesitive upward in late sobthern hemisphere. and positive downwand in the nothern hemisphere, as the preceling formulas indicate: or $V$ may be best taken positive downwat in the northern and nequtive upard in the sombern lumisphere, to wofarm to the conventional values of the inelination $l$. 'There has leen erreat diversity of use among magnetionas regarding the chole of co-ordinates athe absolute units of moasmroment, but it is believel that the satem of poomlinates her imdicated is the most suitable. Fur syotems of mats there have been extensively asell the following :

Foot-frain-secomd (F. (i. S.) enallad the British units.
 unit.

'lhere are als, where which werar in Ganss and in German anthors.
'libe following tahle erives lat fatiors for transformation from one system to lhe wher:



| $\begin{gathered} \text { SYSTEM } 1 H \\ \text { lNITS } \end{gathered}$ | Cinish. | Commot ure. | British. | Metrle. | C. $4, \mathrm{~s}$. | Examyle. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| (ianss | 1006 thll | 13.0wathati | $0 \cdot 1 \times 1315+1$ | 1] ChM $34!41$ | $180^{\circ} 0$ |
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| ("ombiming ust. | 10wn 010 | ? 5 | $8 \cdot 4!41$ | 0. 9 931 | 1*35\% |
| British | 131 ¢f 11395 | 11 | (1.4611 | (1).1461) | 10.963 |
| M+rric* | 24te 0 8utis | $\because 11 \%$ | 111 | 011 | $4-214$ |
| (.) 11. |  | 21 lin : | 10.11 | $1 \cdot 1$ | $0-4 i+14$ |

lt is arread that the $\mathfrak{t}^{\circ}$. (i. St. statem shall be the one

 mont part fomme in (F.. (i. S.) british, (M. M. S.) motrie, und
















| Epocil． | Method． |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Aublority． | 1．aituile． | Lumghende． | A．t．Alus． | 1－4．tus． | I．Estiver． |
| 1824， | （ ${ }^{\text {d }}$ | liauss |  |  | ditusw | 7－ |  |
| $18 \div 3$. | C． | Frouna and I＇Clermen | ＋ 3 |  |  | $\because$－ | 10．4 0 |
| 184045 | （ H ， | Russ．．．．．．．．． | ＋ 700 |  | Kıse．． | Fis in | 16－11 |
|  | $\because$ | Arry ．．．．． |  | 16＊＊ $0^{\circ} \mathrm{H}$ | Nay ．．． |  | －リ： 11 |
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| 1890 1890. | 1 | Stwmay Shbut． |  |  |  |  |  |

mean time for such parposis，broame of its adoption in astronomical and eivil reckoning，and themere mathetic phenomena have certandy an antramical sind to thata．

In the same way manditic latitales and hapitmes were taken on a different system from the astromaical and geo－ grapheal eo－ordinates，hut they shomblar restored to the common system．Gillusured $u=$ morth polar distance，$\lambda$ rast longitude，and rdistane from the earthe conter．$X$ in the mo－ ridian north，y perpendienlar east，$Z$ povitive upward．Max－ well uses X to the north，Y to the wret，$Z$ upward；hot，asat－ ready indicated，the best syan is $I=T$ cos $I, J=T$ sin $I$ ． the convention lemer that $I$ is positive in the northern and negative in the som hern hemisplare．At the same time the convention for $I$（declination）is prative to the weat and negative to the east，so that the azimuth rotation is N．W．．s．S．
The magnetio polos of the marth do not eoincide with the poles on the axis of revolution and therefore a complica－ tion is introduced into the combitions by the simultamenas existence of these $t$ wo polar systems．The fusitions of the magnetic poles are non very well determined at any epoeh， though several attempts have terem made to dotine them both by computation and by observation．

It will be seen that the location of the poles is derived almost exclusively frim eomputation and that they are not aceurately known．The poles themselves are suppered to the changing along the surface of the earth，and it is therefore necessary to locate them care fully at some＂pord in order to know the rati of such motion．

The emmination of the two systoms is shown in lige e．
Let N：AS represent the maridian on which a mothern station，A，is lenatem；NBS the meridimen which the sta－ tion $B$ is sitnated，such that the same wide sweping line of force，BOA，passes thrmgh earh：I（ $I$ ）is the declimation， positive west ：if $I$ is the inclination．pritis thew homizn： If $T$ is the total intensity，positive along the line of force： if $M$ is the horizontal component positive nowthwarl；and if $V$ is the vertical component．pasitive downward，the relative positions at the two stations are illustrated on the diagram by the arrow－lines．

In order to show the type of chames through which these elements pase in different parts of the earth，a table com－ piled for the most important obsorvatories，where nome or less continuous observations hawe bew made，given for the epoeh of the mean observations，is mhded．







 Than for equal derlimationo are ofnedally uefol maviea tion，and all the saling charts furninhed by hydrugraphas

othes have the lines of equal declination markel amon thet． $\rightarrow$ that the deviation of the compse direction，which in that of the horizonal compencht，may be allaned for in the nat－ gation of varat．

Senmayer＇s chart of equal hactination－for the var lath．

The magnetic meridinas form continmoly arying nughe


| Station． | Lopitude． | Lawtude． | Vuma． | Pmelinatima， | Inslimall it． | Il．ersontel fo | Verioul foe． | Tota form |
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Fig. 3.-North mannetic pole.
Gauss for the year wob represent the magnetio meridians, and alon the lines of embal inclination, or dip, as this angle is often ealled.


Fer 1 sumth magnetie pale.
The mat, by diry exhithit the dip atme the wat intencity





upan the charts. is a vory amplanated mather. 'The chiof


1. 'lebr suface of the ghone is diviled into two hemi-


2. The daeliation juctoan with the latitude from the
 atul muth.
S. There is a latera aros of small derelination in the Asiathe comtinemt ableol the silmerian arem. and anmber in the
 These luat some relation tor whe expanser of land and of ocean controlling the anmont of the deflection.
3. The inclimation is greater in the remions comtaining the matrovice pulas than in regions of similar latitude on the oppusita sinles of tha hemicherere.
4. The magnetic "puator intrroct - the reographieal equa-
 of nearly 17 in latitude.
5. 'The tamerent of the dip' is domble the tangent of the numbetic latitme within ${ }^{2} 0$ of the anator.
6. The inclimation has two maximatal twominima within the latitmes $\pm 17$, and lat anc maximum and one minimum outsidu of there limits.
7. Ithe lumizontal foree diminishes in intensity from the equator to the lwles, where it vanishes, while the needle loses all its directive energy at the same places.
\%. In the burthern hemisplure there are two anequal regions of increasing dij, ant smilarly in the sonthern hemisphere there are 1 wo unequal regions.
8. The inclination is greater in the regions embraeing the magnetic and geographicol poles than in the corresponding opposite symmetrical ropions in each homisphere.
9. The rortionl intemsity is less in the larger areas of small eleclination in high latitudes than in the opposite heminherical regions.
10. The inclination and rertionl intensily inerease with the latitude from the magnetic equator to the poles.
11. The foens of greatest intonsity in the northern bemisphere is in $5: 19$ N. lat. $92 \mathrm{~W}^{\circ}$.Jon.: the waker focus in 59 14 N. lat.. $11 \mathbf{N}^{\prime}$ E. lom. For the southern hemisphere the stronger focus is at $64 \therefore$. lat., 138 l . Ion.; the Weaker at about 64 s . lat. amb 125 W . Jon.

All the knowledge of the marmotic system of the earth has leen whtained very slowly, and is the aggregate result of the activity of many able men. Gre of the most noted of these is the astronomid llalley (16.56-17.12) the anthor of an infortant theory, and of eharts, showing the lines of equal derdinatign (herce somotimes ablled the datleym lines). The charts, which wrop puhlished in the your 1701. comatamed such lines at intervals of $\sigma$ therong all points of the carth's surfacts. Other whats have bern pablished by Domenan and Itohsom for 17.45 and 17.56, hy llanstren for 17ant, hy Barlow for 1483, by sabme for 1840 , by Gatss for 1829 , also revised loy Emman and lotarson and by Nommater for 1 sato. The limes of mand declimation have litto value compared with lines repreanting the true mannetio muridinns, and in general it was a mintake do intronhere them into the sejence,


 work ither elamonts. Roms mate a vorage of olservation

 of inatroments.

















 liwhot will bre foumb on tha following page.

| Station. | Sailua wading the erpedition. | Abamerert bathe. |
| :---: | :---: | :---: |
| Jan Mayen. | Ahsirim-lungary |  |
| Godthas | 1mbunath. | Patumet. |
| Ifaly F'ranklin Bay. | 1, sis | tiraly. |
| Kinsuar Fjurd....... | tir rmany | 1ireme. |
| Furt leate | Cownt Britamand (ommala |  |
| Point Marmes | U | Ruy, |
| Lena Minise. |  | Jurgmas |
| ficksouhaven. | Hallabd | Shrllers |
| Moller thay. | Rusiotu | Alatrojew. |
| Solankyla | $1 \cdot \mathrm{blatat}$ | Brums. |
| Bossekop. | Surway | Steen |
| Spitzergion.... | ¢w-uted . . . . . . . . . . . . . . . | Fikbulan |
| Sthel (2)nrgien | Germany .................. | Sohralir |
| Orange Bay. | France . ................ | Conareelle Sonmin |

'J"here are also many linely equipmal jermathont observetories, nbont seventr-live in mamber, where extensive series of observations have been ernalartent, and about forty whore
 aecomat of the magretic instrmatats will he given, but a full descriptinn would involve an extemded sthdy of their many physical peculinrities.

Classitications of . Wisnetic Instraments.- Masmotic instruments are dividel into two classes: J. for uboblate measures: II. for dilerential mensures. In the lime medsurements are so comductad that by suitable computatims the observed quantitios can be redited to the corresponding values of the ebaments in mimutes of are for declimation amb
 for the horizontal forces the vartical force, aml the wat foree. In the seeond the variations of these athrles amb forces are recored from time to times, so that by comparison of the observinl valeses with the known ahisulate values for given instants the corresponding absolute valums may be olntaned alan for intermediate interval: us resuired. The labor of obtaming the absolute meanates is so preat that in pration these are taken onee a week in weltecondacted observatorios, and the values for the intermentate intervals are dorived from the combination of the absulate and the differential medsures.


There is proat variaty umong thear instrumatate lath as
 forms of appuratus for lichl divervations.






The Ilorizontal Forer.-Tho detromination of the intorn-





 vibrations:

$$
T^{2}=T_{i}^{2}\left[1+\frac{M}{\| m}-\xi_{1} l-1+\frac{M m}{m}\right]
$$



 the magnet.

$$
T_{1}=T\left[1-\underset{-i f(x)}{*}-\begin{array}{l}
1(1) \\
1 ; j
\end{array}\right]
$$



 incrtia hoitur $I$.

Forer the divention







 313 , to mhich reforence is made lut a deaeriftion of the ade eompanying ligure.


ドim. is






























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 traces ate remordet all the minmte the thations throush


G"eriations ut the Magutie Eitmentsut the sume Siatione.


 dha to the mixal nat nere of the material incild the wath,

 time. Which it is one of the chiof objeets of the seloblee to
 fur those changes, it will be necessary to pass some of them in rivirw.

The Ihyviral Cimest of Metretir Fariations of the Tom-





 and of hera to the direet marnetic ation on the other bumes of the sentar syotem. I'rohathy the thenrite hyputhexes are then whed atinetiate the changes with the ant ion of heating
 through friotion amb other physiotal comblitims.
 boomate it is well known that they are wholly inalernate to tha parpme for which they have bean invential. In view of

 pint rers charlyto a dofinite solution, ome which in in harmony with the beat resulti of moteri physics. 'I'he experimontal and mathematical researohes of lamaty aml Maxivell

 of 1hartasul the womberal dovelopment of the thenry and
 hinchareses, rembre it almost certain that the smar ratiatims
 wriminate in the amm, lye the osillations of chotribe eharges


 solar corona, the solar spertmon, amb nher well-known phe-


 ["pon montare with the rencer morliman of the earth"s atmos-


 fions. in an portion of the ir transormation, apparar to be-


















simle of the compatatims by thomselves. What is here
 extomd over lifty yenrs. Sll that testmony is taken tan whther, so that wo la bost intronduce and theory into the
 havmeny exivithe lop wern the mondel thats built upand the kiown imathomation relathons develumed from wholly dif-
 thind is masmedice, and that its lines of force pass throngh the math in the proper armes beranse the tarth is a better tramomiting medima for suth rays than the surrommeng pate blelectric. A simple law, which is sometimes called Hatotete refraction, is at the havis of the phemonema. As ras of latht are tannmital throush a glass sphere in pecnliat enrves. su the marnetio rays art carried into the earth and throurh it in edarateristic corves.

Treatment of the obsercutions.-The residual values of the elememts II, I). I, as given in the reports of the thirty ohservatore whose menm edments have already been compiled for thin article, taken month he month, are treated in the following way: 'Thest valnes, $\Delta i l, \Delta I), \Delta l$, are redneed as (")mphents of a defleeting foree acting on the normal [urce at the station, and their resultant determined in polar currdinates, $d x=\Delta I /, d y=/ / \tan \Delta I), d z=\Delta I, d x, d y, d z$ heing taken consistently, after all necesary reduetions, in units of the fifth decimal place of a dyne, C. G. S. units. Then $d S=\sqrt{d x^{2}+d y^{2}+d z^{2}, \quad a=\frac{d z}{\sqrt{d x^{2}+d y^{2}}} \quad \quad \beta=\frac{d y}{d x}, ~ ., ~ . ~}$ where $\mathbb{A}=$ the total dellecting force, a its angle with the phane of the horizon at the station. $\beta$ its angle in azimuth, counted from the magnctic meridian, Now, instead of rotating the ball representing the carth about its axis in the presence of the sun, the magnetic system is supposed to rotate about the surface of the carth, so that when a station reaches agiven hour-angle the detlecting force (S, a, B) will have its special valne as given by the observations. It would be possible thus to construct a model for each month, lut the mean of the twelre months was taken so as to proluee a monn ammal result. 'This is as if the sun were on the equator all the year. and the magmetie axis were perbendienlar to the plane of the eelipitic. It will he seen upon ennsideration that the magnetie dedecting system acts instantanernsly over all the surface of the earth, that each station takes up that port of it peculiar to its place and rarivere that he itself. Hence differnees of longitude and diferenaes of the years of the observations do not necd to be regurded, whach simplilies the problem, becanse it is not mecesary to reduce observations to an efoch, as in otler bhysimb functions ifenembing umon the time the observafions the refre may indlude all avalable data that have ever bron taken, thongh it is ta be limited to those which lase The twenty-four hourly realings, and stations may be convincred as moved to the same meritian. Instead of construeting by order of georaphienal latitule. it is cleary pouper to take masmotio inclimations, calculating the magnefte latitule eorresponding to amy inclimation.

The Model- The followine desiriplion contains a statement of the main features of the instantaneous marmetic distribution as displaye tyy the mole ' The drawing (loje. 7). howeser, contains some of the essential fentures 'The two direlas repremt the magnetie equator, and the two magnotio hemisphers are orthoraphically projected upon that phane. 'The sum is on the moridian N. N., and an observer at any point, loeal hont-angle, will see the sum in its ast ronomicat position.
The fidel is dividel into two fortions, the first containing the forees which enter the surface of the earth at suitable angles; the secomd aomprising those forees which emerge from the surfae of the math. The olarker parts represent the enterine foroes, and the lighter parts the cmerging forees, In the morthern hemisphere these forees enter the dark side of the marth and emerere wn the lirrit side: in the southern hemisphere they water on the light side amp emberge on the
 homixphere are diretmb towath the sma, and all the forees in the sumthra lamisphere away from the sins: hat the

 therefore the morthern hembshere is pulled toward the sum and the sonthern is pashed asiay from the sim. In a word, the eath is meted mpon by a mangotic comple, and the lied is man that the marnetio protential diminishes in the direes tan from the sum outward past the earth. A marnet with-






Fig. 7.
force pawing thromeh it - enter. We can harlly resist the conclusion that the rablations from the sun have the propt erty, amoner others, of acting like marnetic lines of fore and that ther earth is palleal by this form contimonsly. This magnetice force does not athert the solar constant if gravitation. treause it art= only as a comple: it deres mut
 the forces are distribuied smmetrically abont a plane fuss ing through the cerster of the earth. This aouphe dows, hawever, tend to draw the axis of rotation towned the plane of the ecliptic. being a forme similar to that which produres precession of the equinoxesamd uatation of the poles. It is also pointed out that it is of the right physical tyme to pror duce $a$ ehange of latitulde in the stations on the carth. It will be necossary hare to state that these fores range in

 face of the warth. 'Jhe attraction of the sum at the distance of the earth is, in the same mats of nlomilnt meanare. 0.55940 (c. li. S. Sow, in the eate of diventhatere of the magnetice field it is known that the detlertine farmes will in-
 is, tenfold. Hand wo may say wry romehly that the ferce
 smens total attractive forco. 'This is a fars potanate of the change in the forem of the eompla.

 ent in rertain reritial hatere of the theld.

If $\theta$ is the athelf that the ras mation with the matmal ont





















Fin. 8. - Variations of the sular polar magnenfe fimf in the


 tation. The force is derivel fromithe -har mazatie tiodd.
 am! sweqping over throunh -pace fill it aptraches thatarth

 since the carth's axio of marmetio combluetivity faint- in that

 coromal ohervations and the -tuly of thin fielal at thoo earth


 atout 100 . "The truce time of whar remation in mat that if


 the former corre-pmaling ta 26 bis days amd the latore to


At the carth this lied manifers the dhame takiner fhac in it bog onthrsts of the anrora. by manathe - thrme. ly












 entergy inter heat in the atmogithere of that righen. It is





axis. Thas pomts to mation of marnetie inversion, or
 farisul 1 s sers in the following rurves. 'Ihe diret and the


 the eathand dritt of the waves, athe are reforeal that

Smilat comparims ate extombed to at sum-sput perimb whin the gatro sinata, and the renth shaw that there is

 in Jathe of the mem trank of law and hish pussures in tha* 1 . S., the mation in fongitule of hass and hiehs, the


 whthed the invere varying inversely, achown in lige 10.


Fif. 10.-Variation of magnetic and metenrolondaal elements


1t is inferrell from the results of the cmumbation, upon whith these remarkablate of carves depat, that twotyos
 rarth: (1) the eherter-matuctic, or visible ray, falling upon
 visible ray, falline upn the palir reqialt of the wath. The pular fied is edearly the soat of that hitherto moknown sys-
 storms. Garth arments, variations of the mathetic tield. and some of the moteoralori al changes that make po the weat her.
 mical emblitons of the problom indoles in its seon the mature of that sun that emite this manatio emersy, of the

 of at the surfase of the tarth.


 fies the Latll: the sume of the Sirgin Mare as remeded in














 Paris. Nor. 4. Jith: was apmintel assistant al the Natomal Lilorary in $1 \times 13$, and one of the elirectors in 1835 . As emry


 ditub. with (inizat, to tho Sutionul, witlo Armand Carrel.
 Lreat reputation as a pirited and aente eritic, especintly of dramatie jenctry and art. A number of his articles he collectand muler the tille Craseries et Alditations historiques

 will tranalation and emmentaries: and Histoire des Ma-
 Vofice sur le cie et les trucaus de Charles Mamin (Paris, 1:3ij).

Revised ly A. İ. Marsin.
Magnitude [from Lat. magnitudo. greatness, size, deriv. of moynus, great ]: mything that ean be measured. Originally the term was apilied tosignify a portion of space possessing the three attributes, length, breadth, and thickness; hy extonsion of meming it has come to signify any quatity that "an be expressed in terms of a quantity of the same kinll taken to a mit. Lines, surfaces, and volumes are called genmetrical magnitudes. An angle is also a speeies of gennet rionl magnitude. 'J'ine, weight, and numbers are arithmetical magnitudes. See QDontity.

## Magnolia: See Magnola Famin.

Magnolia: town ; capital of Colmmbia co., Ark. (for locatim of commy, see mat of Arkmsas, ref. 6-B) ; on the St. Lonis S. W. Jiailway; 40 miles S. W. of Camden. It is in a region abounding in good water, fine timber, and valuable grasses, mud thourli lewl and fruitful has been developed but little. The town has saw and grist mills, two weekly newspapers, and elurches and publie schools. Pop. (1880) 536 ; ( 1840 ) 1,486. Editok of "Colembia Banner."
Magnolia Family : a small gromp of dicotyledonous trees and shrubs (the 1/agnoliacea), mumbering about cight $y$-five species, natives of America, tropieal Asia, Australia, and New Zeabud. They have simple, alternate leaves, and flowers usually composed of many separate sepuls, jetals, stamens, and pistils. They are therefore to be considered as among the lowest of the dirotyledons. of the thirteen genera now recognized, four are represented in the L.S. Sy eleven species, viz.: Liriodendron, 1 ; Mugnolia, T: Illicium, 2 ; Schizandra, 1. Of the tirst there is but one species, L. lulipifera, the tulip-tree of the Eastern L. S. one of the most stately, as widl as useful, of forest-trees. A variety of this specin's is found in ('him. 'The magnolias are remarkable for their fine foliage and large, beatiful flowers.

Citarles B. Bessey.
Magras, Helvhen Gistav: physician: 1, in Rerlin, May: 1×02; st mbien natural scipmon at the universit $y$ of his native city, and chemintry under Burgelins in stockholm, where he diseovered the ermponm linown as the green salt of Magnus; was apminted Professor of Phesies and Teedinology at the University of Borlin in 18:3. D. in Rerlin, Apr. 5, 1870. The resuli of his numerens original researehes he commmicated in Jrogrendorfl's sthaten and in the transactions of the Berlin Academy of science. The most remarkable were his expruments (in the eneflicient of the didatation of gases, published in 18.11, a few days after Regmanle's pablication of the same results : and his experiments on the transmissinn of hat throngh gases, whind gave rise to a ematroversy wilh Tyadall.
Marmes, Incoo Frmmenti, M. D.: ophthahmologist ; b. at
 sity of froman; his been leofessor of ophthalmologe in the Tniwersty of Rreslan since 1s:6; is author of ophithat-
 (1-ib): Wie Cowshichthethe Enturdeluny dis Pierbensimes









 archives in 1ste. Ilis primeipal worls are a tramsation of
 $1 \times 21-23$, a 4 -






 W"stern part of Jowand 1693: was whacatel af Hwam by
 in leelandic lore and as a empyiat of oht ledandic mane-
 cetwod emphoment first as seretary th lathotions. afterward in the reyat arehises. In boblow was made l'rufesor of Philosohy and Northern Antiguity at the uniwerntedad in tha following yar he accompand the roval "ommimion of survey to lofand, where ho remained, with some interruptions, until 1:12. Dhring his ten years stay in Lerhud
 he bergeathed, (ugether with his whate fortame, to the university libare. . 1 catalogue of the collection is in course of preparation biy its eustodian, Dr. Kir. Kahud (1s91). In the fire of lows a large portion of the collention, intuding Magnusson's notes anies ete.0 was slest roved. How was the anthor of several works on seamdinavian histury. D. Jan. 6 , 1730.

Revised by II. K. Donae.

## Magor: Sue (Goo asd Magoe.

Marog: river, lake, abel town of Southern Quebec, near the brorders of bermont (see map of Quebee, ret. 6-('). The river drains Lake Manphemage traveras Lake Magog ( 10 miles long be 3 or 4 hrad), and at Sherlowher, after a course of 20 miles, cmpties into the St . Frames. a tributary of the st. Lawrence. It contuins a comsiderable mhame of water, and its fall affords large water-power to the towns of Mage and Sherbrowe. The town of Marom is on the river near where it leares take Memphrmagom, Comaty Stantand, 19 miless. W. of shertrooke. on the Camdan Patife Railway.


Makk II. Marrisiton

## Magot: Sie libarbary Ape.

Marpie [Mag, nickname of Margurrite + pie marpie, from Lat. pica, matroic, jay]: a mand for the birds of the genus Pira, members of the crow fanily. the Furovean mangie ( I'ica piea) beine the most comman species. It is of a lustrous batk with green and bromze reflectins. white on the belly, shoulders, nat inner woble of many 1 rimaries. The bird is 15 to 20 inches fons aceording to the lemeth of the tail, which may be a font or less in lenth. The magyie is sotial and omavorms, wary and mieharens. It necurs Chroughout Burope and Xorthern Avia, and a lumb race (lice picat humsoniea) is fonnd in parts if Northern Sorth America. 'lobe batme margh in sometimes applied to the long-taled jays of the genera Lrociswand Cymopolins.
r. A. Luas

Maproder, dons linguran: sohbier: b, in Virginia




 fing the brevet of majur for wallantry at (erron fordo, and



 was apmintod brigalwe and major-wherat, and wht wit.





 Lawiom bivames Merctra.
Marnire, Jons Fravo: wlitor and fultionan: b. at





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Y. II. 11 .




 deca. "The Dif-hat. Forement atmong thee trila.s nire

 India was cablal after it lahirata' - "maniment, or Bhärata-

 or forent hermitape, at a sacrifice or a fundral, wore tolid the tates of these hatthen and their lurnes. The Himbon were lovers of sturies, won in marly times, anil Iatanjali sars "they will linten to them all bight through, untal sumpa.".
 in Fedie times, as i- iblicated lix the fact that the motrab Parts if some of them arre still datat. an the "ithona hymas" of the Seda. The priest tuld ention and bave
 rifiese : and no less at the fortivels of the (hioftains or tribat hines were the tales of lygane timen in ordor. "Ibee tales were probably first circhated in [rowe, unti] some more ehere teller fint them inta simple and asily rememslereal metrical form. Suchat ther was uften mate anta or bard he his whiftatio as a reward for hio skill: and, as his


 behnged enverially to it.



 By umiwion of the ward far story tha lat is abthen bated
















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Bhima, and \ruma























 and camank them the their exile；and these suries，with the
 II＇the thimb or fourest－hent，which is one of the longest in the jower．
lha thirtanth year arrival amd pasant．＂Then in the
 bat rearived them not．Frome this arose the eonllict．＇lhey
 then，atthongh mine mon of their wartiors，they get back ugain their timedom．＂＇Thus vmied the bhioratu，dombthess． in itzoldos anil simplest form．
＇Jhe prom，as we bow have it．pins out the story of the ${ }^{2}$
 thots．At fomath louhishthira is crowned in llastina－pura， ambl Phíhomat the beder of the kuras，although mortally
 dution of kins and on other thries，amd thon dres．lat the s．benternth hook the Pombus ramome the kingelom，and in the next－the has－they aseemb to heaven with Jrampadi．
 comberland whathe main thread of the Bharata，but are not





 if antation，in fart in a ly






 Fine a briof areoment of him，see Monier－Willams，Indinn $11^{\circ} \mathrm{m}$ lom．lerther xii．



























＂low bithonerahy is riven with grat motail in parts ii．





 （口，








 whtion of the drama（laris，INBn）．Sir bilwin Arnolil＇s Imdian Liyhs（Lunston．IBSi）centains Siacitri，Nala，the （ireut Journey（bh．xwii．），the Einlry info Jhaten（xviii．），and s．veral wher sturios Summaries of the main story：One of the hest in English，in J＇alboys Wheceres History of Imdia （bol．i．，Lomdon． 1 Efit），abrilgerl in his short llistory of India（New Yurk，18st）：jerhajs the very best，by＇lhers－ flore（iohntiacker，liestminster hedipue．Ajr．，186＊，reprinted in his Literary hamoins（ii．，！fi－11！，1undon．187！）：very


 bharala，by dibulf lloltzmann［．lr．］；vol．i．，Zur（ieschichte




 and K゙irste，Sitzungherichte der phil．－hist．Classe der Ẅener Ahademme（rol．cxxvii，No． $12,180 \%$ ）． （＇．R．Lamman．
 fonnaire，on Lake（ineva，switzerland，Fel， 26,1839 ；rp－ edival his arly education in Germany；statied in Dublin
 sity of Jublin．Je ía prolilie anthor and an eleqant stylis． Among his momernas works mas be mentioned The A tin－
 emy，18：0－44）：（ommenfary to Kants（rifique（1N66）：So－ cidl hife in tipecte from Ilomer to Menamber（18：त，Bd ed．）：
 and Thomght，from the Age of Aleatonder to the Roman Con－ quesl（18゙ら）：（irete maler Roman Sumy（1N！0）：Nory of Alermater＇s Empire：ohl（irmb Edaration；Mistory of


Ahereb（itobman．

 （ha moiveres is formed to the moment it is replaced with amother．It is dividmanto four kalpas，whichameonmparat with the four seatsons of the rear，antil is expal to $1,344,000$ ， 000 murtal vears．

Mahan＇，Alfria，Tuiver ：l＇．S．naral officer：J．Sept．2\％， 1א4t，at Wrst Point，N．Y．．Where his father，Beanis 11.

 war in the suath dtantir and in the Golf symadrons；was


 nary－yarl on the morthwest mast of the $l^{+}$．A．，nombla of $49^{3}$




 （＇ambriden＇l niveraty ami of l）．（＇．I．from（lxforl．He is






## C． 11 ．Tmbrer．



 fation of（commrematinal chmeles at Pittsford，N．Y．，and

Cincinnati. O. promident nmi lrofocan of lhilnandy and





 He was a prominomt adromato of the shesw eallond lerfore tionist, which be at forth in the work sioreptore boetrour


 Lomir (Xew York, 1sin): Theism and . Infi-fluesm in theot

 1883).
K. llost.

 Virgina and in 1620 entered the $\mathrm{C}^{\circ}$. S. Military Actalemy. gratuating at the head of his clase in 1N: f. and was ano pointed a second lientemant of 1 minemers, but retamend at tho reademy as $A$ andant Professor of Dathematios and of Fan-
 sional duty, passine four years innluling one sar an at - tu-
 and stalying fortilioations and the intitutjons connected with his jrofemiom. Returning to the U.S. in 1830, he was in 1s3: appointord I'rofosour of the Department of ('ivil and Military Fingineering of whirh he hat been in charse since 1830, and at the head of which he continucel matil $1 \times 0$. Failiner hentha hronght on continned insomain, resulting in temporary incanty. duriner an attack of which he drownend
 His works on engitmonge and the art of war are latrely
 Treatise on Fitherortifirulions, to which was athend in 1sh. Military Mining atul Sioge operalions, the whole now comprising jart i. uf . In Eilementury ("unowe of Military Eingineering, of which Prmmenent Fortifications callsithles part


 American edition of Moxploges Mechunical Izrinciphes of
 Course of Civil Euminurring (1N.3i) was larmely improved and extended up to $1 \times 6 \times$, when it was almost intirely rewritfen; at the time of his dwath a new revised edition was in preparntion and party printed. Die wan a mennlar of

 of suriencers, 1stis)

 mahā. graat + nato, river]: a river of llindustan. It rias
 course 500 milas through Berar and Orisad, intor the Eay of Bengal, forminer a harqe dilta, whioh is subject io destrmite inumdations by the ocman. Savigable for zon miles during the raing sobson, it beeonses abment dry during the rematioing half of the genr. 'f'be river-hed is celdedrated for the fin qualit! of diamomels fomme in it.

































































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 Bordonmais. who sabe it his wan momes "hath is hko the









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 furimer, Mahmal was an orimat: hame his hat effors

 shomes in his untertakines was a probal imposithity. The marvel in rather that he :tocomplinhed so mach as ha

 arted hime of 'lhe Girat. E. A. Grosperem.
 Sultan of Pravia: tira Suwalman Empuror of India and fombler of the Ghamevile dyanty: be at chazai (thatai or
 Who chamendeown from the taxanian kines of lersia, he"ente ensemor of the prowne if khomsan after the doath of his father-in-law, Alitivin, of whom ho hat formerly been
 really ind pendent and extonded his fromtiers on every side.
 command aran the 'Tartars, whond invaled Khoransam, and refeived from Noh. the Samande sowroun of porsia, the title of seifed-bimlah. sworl of the state, tugether with the enermmon of the provine of segestan. His father died in ant, having apminted limail, a yomger son, his suceessor. Nalanul overthrew Temaill aiml capared Ghazni in sus: thell math allianere with the rulers of "lurkistan and kasharia mainal Mansur, the mew lemen monarch, and diviled the lersian kinglann with his ronfederates. From low tw 1030 he made fourtom generally successful expalitions, in whith he ac"mulatel notmons
 his empire from the ciaphan to the (anges. Thomeh aot
 brary, and the manemo of mathral hivary at Ghazni. Fur-
 frimat. Mahmel was the lirst ruler to take the tithe of sul-
 the same name. See histories of bula by Gumatl. Eltiot. and lilphimone.

Fi, A. Cibovenor.
Mahoreany [from the $S$ Amer, mamel: a mohle forest tree of the Wiot ludian and bentral and sumb Ammen,


 strong, and hotave and wombly that fir a lome time it hat










inferine. Iustradia and other combtries alse furmish spari10n* thongh often valuable mabomies. The hark of the trun matugeny abomis in an atise fobrifugal princips. The montain mangany of l'tah is the Cercocarpas ledifolimes, of the onder hosuctio.

## Malomet : sion Homarmas. <br> Mahon. Lably: Sme Sranhere. Eabl of


 ginia Silitary loxtatar 1sti: devan himself to civil en-
 Gurer lainmal ; twa part in the rapture of the Xorfolk
 Virgina heminent; was engaged in mont of the hattles of
 thase aronnd Poternherg; wat affantel hrigalier-general

 mand it lecmoda llabdred. After the war he devoted
 came prosilent of the Noffolk and Temmese latway. He जherel actively into politios, amd was sam conpichims as




Mahony. Frasers: anthar ; b. in Cork. Ireland, abont 180.; studied at lanit endlages in laris and Rome, and took orders in the koman ('atholie Chareh: almudoned the ("hurehabout $1 \times 31$ to commed himsulf with Fraser's Mayezine in which he pubhishod an amusing series of artieles wer the peodonym of Pither Prout. Thase were collected in
 tor to limhtris Miseflemy ( $1 \times 37$ ), traveling correspondent, and afterward Roman correpomdrm, of The Daily Neus. and for many gats fatis wrempendent of The cilobe. He adrocated the unity of Italy in the powerful letters publisholl as Fiots and Fignaes from Ihaly, by Don Jeremy Steronurnla. Bratdictine Monk (1sta). in is6t he retired to a monatery in l'aris, wher he diad May 19, 14i6. Some of his hater essiys were elited by lamehard Jerrold as Fiaul heliques of Futher lrout (1Nit), and an edition of his works by ('harles lient was published in 1880.

Malopace Lake: a summer resort in Camel township, Putnancon, N. Y.: 14 milt's from Peckshill. It has many residences and several hotrls. 'The lake is abont 3 miles across, has three bemtiful womd islands, and is about 800 feet abowe the sta-level.

Malarallas: a peophe of Central and Westorn India, who in the cighternth century overran the greater part of the prinasula, phacel the Mohammetan empire of hellia under tribute, and were for half a century the mast formidable ohstacle io British supremacy in India. Tleir origin, gengraphical and echowheral, and their early history are alike maknow. hat the widence of physeal characteristics, enstoms, religiont, and languge, combind with the ferble inhications of tralition. woult puint to one (or several) of the numerons irruptions of Turamian rates from (entral $A$ sia prior to the rise of Mohammedanism (seventh century A. o. This sulpused race mast have fomm its thef seat in the N. W. of the Decon, illong the Indian Ocram southward from the Nertmalar river to the meighberhend of Goa, and by intermarring with sudras and wher low-caste llimdu whon atyuind at onee a languge and a religion, the latter, howewr, heing dintinetive in ignomg ensta and in permittine the nse of meats. Siee Fsom, and (irant Dnffrs History of the Mahrottes, and, for a comprehensive thongh
 drat's Mhenual of the Mistury of Indiu.

Mai, mi, Anomo: chasseal seholar; b. at sehilpario, near Promame ltaly, Dar. T. Bise: was educated by the Jusuits;


 1) at Ahane sem. 9. 1s.at. When in Milan he arenimed prat rymation fram his pablations of frarments of loner-
 man mornahbe of these wre the framents of (iopros





which apart from its paramont eratoral value fromed that

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 ( 6 vels., $1 \times 1.5-53$ ).
bevinod ty A. (atmans.




 sometimes atseribed io [lamer.

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 She was arrewtod and after a pullio. recomation and a com-
 tion," she was excentel at 'Ty horn wha liok kiner and four others on Apr. 2l, 1.53.

1". M. Cinbr.




 amb bublic library two hompals, cavalry and militin bar-

 one of the larest parioh ohar how in the kinedom, and conttains several interatime momments and ahor antiquition



Maizhan, māngatio, Aghert: himbrial and anar.
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 has bern aloretedt that the fanily of Jaimonides did, for at








 to be widn! known alsu as a physionan, and in this ribur-ity entered intas the surviou of the reforning sultan inm of his vizurs, a! Joulhil. I). Iter. 13, 1304.

Damondes was a prolitio writer. lomt, at the same time.
 with une exceptime, were very van tram-lated into liebrew, motahly les members of the 'ibhom fomily. 'loty may be
 entific works.

 writine the commentary Wamminhes wishel to spare thase who stalied the It ishmati the trouble of wadine thromel the emfless disoussuns uf tho (inmara. (sioe Talmod.) Jo has therefore carofnlly moted anty the decisions reached by the rathis. Jlo rivoshivawn xplamations only where no rule
 sophical or religious diansanas: e. p. attached to his nutes on the treatiow simbertrin we fint the so-called Thirtwen Artirlosof forith, whish, thoush nom int ondmaloy Mamonides as anthoritative amb humbum, have fomm their way into the

 sq.). This work, whinh wromped its athom for ten yars. was son tramslatial into llebrew, and is fomme (since bis: in the ordinary ulitime of the "lamml. On the aditions of the Arabic text sed shimathandr. Die Mebreniwhen frber-


















 works of the fironim. It was has intembine that thin shomblat



 Thereh is writton in fure Ifehrew, and is arranged, mot ace "anding lo the treatises of the Mishuable, hut ucoording to revain phimophieal principhes which Mamonides has laid down in his ridide of the /'erplered, iii., ehap, Ixsv.

1. Siseral smaller wothe. for rample, Tratise on Comfolsury t'oncersion, in which the aththor attempts to show
 wi Dehmmmerl as frophet is fermisuble " ; and that in eor-



 had aplearedinthat part of Arabia. (Lee also Jüd. Sitera-

 1330. sy.
2. It is, however, as a philosphatal writer that Maimonbles has exerted the gratast influme won Judaism. Il is (iuile of the Perplared (.Irabic. Intülut al-Mäirin; llebrew, Vöreh Nebhmo/sm), finished in 1190 aml dediaded to his puphl Josiph inn Alnin, is the most comprehensive attemph made to combine Iristotelian philosophy in its Neoblatonie form with urthodox . Iewish theohogy. His admiration fior Aristatje was anbumberl. Ile studied his works with the aid of the commentaries of Alexameler of Apodisia, Themistins, mal Averoäs. Namomindos may be considered, ingencral, to be a rationalist. Where he forsakes philosofhy. he dues so knowingly, and in order to satisfy the demands of the religions froling.

According to Mamomides. the stmy of philosophy is the highat tregre of avine warship, and scrijuture mast be brought into hamony with it. Jle explatins numerons exfressims as lignres. homonyms, amel hybrid terms. Frome a misumderstanding of such ifrms has resulted the apparent confliet lutwent redigiont am! sebence. All the attributes of God mentioned in the liblo are thas explained away. They womlid la a limitation of the leity as the l'rimal Canse or Forractive Intellert. 'I'he Nohammedan Íalam lhe deClares to he unjhilasophicat.

In the second jart Maimmbines endeavors to prove the axistume of an intinite. incorpormal, etermal Jrimal Cause. Jhe divides the spheres into four grouns, each sphere having a somlof its own. These are a descending series from the 'rima! Canse and throngh them emanations are transmittod tothe Aetive Intellert. 'This is to a certain extent Aristotelian: but Maimomines holils that the spheres are craater. De teathes also the dret rine of the Creatio in mikilo, comerary to Aristotle. IJe holds that it can be proved as well by philosophoml reasoming as from Seripture. The mivera can the destroyd atran only hy a fiat of the divine will. Jirubles do mod really esist, for the laws once laid down by the Creator ean not he chanard. 'rophecey, likewise, is explained as a furely natural phomenom-an emanation from the active intejlect apm the intellect and imagination of sucla presults whose mental and moral jowers
 tential is lomarht into actumbty.
"he thired bant orens with an exposition of the first chapter of Ezoki.l. which had abwas formed a subjuet of sjeculation amoner the aews. Aecoming to Wammondes, it eontains an expmation of the sulhanary worlal, of the sphares. and of the intelligemex. Ther res of the book treats of thendorical ant? ethical mattors Fivil is simply the negatinnof goma, and arisus thrugh the material elements which are in man. The parjowe mal ent of the world catn not he axortainal: they are themmined purn! hy the will of Goll. Mammaides is a firm mbendar of the dontrine of free will,
 lished be demonotrative proof: it in taned uion the andmority of the biblat:" Thar same is the came with his hedief in the resurrection of the buxly.




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| crops． | Actenge． | İeld． | Value． |
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| Wheat | 4.510 |  | 73．4．41 |
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| H！ | 1．1145 | 12.540 | 13．543 |
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| 190ntors． | 51． 510 | fr． 2.26 ，tim）－ | 3．3423．14 |
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| Mariol | is | 24 | $35 \%$ |
| A！口1 | （1） | $3: 1$ | $3 \cdot 1$ |
| 113 | N3 | $5 \pm$ | 75 |
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| Jus | 4，3 | lis | $0 \cdot 46$ |
| ． 110 ¢リ－ | ［41 | 17 | ＊ 74 |
| S－FMr．abrer | 71 | Sti | ＊ 33 |
|  | 75 | ！ 1 | ＊．13 |
| \ubembar． | 54 | 355 | $1 \times 3$ |
| leatomber | 41 | 20． | $5 \cdot 42$ |

Henisions．－Form dministratime jurposes Maine is divided intu sixteven counties，as follows：


| Colvtits． | ＊Rep． | $\begin{aligned} & \text { Pry. } \\ & \text { Itso. } \end{aligned}$ | $\begin{aligned} & \text { Pul. } \\ & \text { lase. } \end{aligned}$ | COUNTY－TOWNS． | $\begin{aligned} & \text { Pop. } \\ & 1090 . \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ambrosucyent | 13 | 45，112 | 4．9304 | Anbura | 11．2\％0 |
| Aroustoeth | 3 F | 41.7 ml | 41，Sind | fornltor | 4．01\％ |
| （＇umburland | 1113 | ＊ 6,309 | SM1．94！ | Iortand | 36，4＊5 |
| Frankion． | \％ 11 | 16．150） | 17．13， 3 | Furminglon | 1．243 |
| Hatuonek | N | 34．129 | 3\％．31： | Ellsworth | 4.804 |
| K－mmelsee | 9 | 53，115， | 51．01： | Aughsa | 10．504 |
| Knox | （3）1） | 3：3，4i3 | 31，473 | Rocklamd． | N． 171 |
| Limenh． | 11111 | －4，4： | 21.994 | 11 incesstet | 1，\％3， |
| （lyford | K． 1 | 32， 168 | $34.504 \%$ | l＇aris． | \％ 266 |
| Penolsstost | 5－F＇ | \％ 0.4 .6 | 72， 865 | Bangor | 19.1013 |
| 1＇iscataquis | （）1） | 14．802 | 16，134 | Hover | 1．942 |
| Saraminhoe | 111－1？ | 19， 12\％$^{2}$ | 19，45： | Bath． | 8.708 |
| Somprsert | 6 （＇ | 32， 3 3 303 | 32．6\％ir | Skuwhega | 5.06 s |
| Waldo | 4－1） | 3： 2163 | 25．75！ | B－Ifust | 5.264 |
| Washington | 71： | 44．481 | 44，45：3 | 1 ＇alais | 7．2040 |
| York | 11－A | 62．29\％ | 62．N20 | Alfred | 1，030 |
| Totals |  | Cis．abio | 061， 1780 |  |  |

＊Reference for lueation of conntis．see map of Maine．
Principul Cities and Touns，with Pomulation for 1890．－ Port land， 36,425 ：Lewiston， 21,701 ：Bangor， 10,103 ：Jibte－
 Kockland，8，174；Calais，7，290：Waterville． 7.107 ；Westbrook， 6．632：Saco，6．075；lirunswick，6．012：Gartiner．5．491：Caje
 －5．294：anl Nkowhersm，5，068．
l＇upulation and Mraces．－In 1550，543，169：1860，628．279；


 amd nost eivilarad Indians）．The grat majority of the for－ eimn pepmation of llane are Fromeln－（analimis．There is an impurtunt Swedish settlement at New Sweden．Maine has the laresest proportion（more than thren－quarlers）of ［moly mative stock among the New Furlamel Sintes．

Industries and Business Interests．－＇lie following table gicus atmmary of the manofacturing and mechanical in－ Custrios of the thate，as reported by the cennus of 1890 ：

| Ishentrims． | Yar | Nimmtiep of emablinh－ tuchts． | Canitat． | ADERAIEE NUMBER OF EMPlOMEES ANI， TOTAL WABES PABM． |  | Cont of materiais used． | Valie of proxducts． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Emproyes． | Wшке\％． |  |  |
| Total fior tho stible | 15：41 | 5．11111 | S41， 414.8104 | TH．8N0 | Evirrem， 217 | 8．1．504．65s | Sta，640，T06 |
|  | 1ヶめ1 | 4， 81 |  | 50.93 | 13，643，312 | 51，1\％0．90 |  |
| Incratase |  | $83: 1$ | S30，131 misk | ＊－x | 812！ $4 \times .499$ | $\sin \times .901$ |  |
| Turale furselowtul industries： |  |  |  |  |  |  |  |
| Wouldergends． | 14019 | 1 | S9，N152\％ | 5883 | \＄1．901．676 |  | $8 \times, 811, \frac{2 t i f}{}$ |
| Cobting gust．．．．．．．．． | ＂ | 13414 | 20.800 .054 | 13！ 198 | 4，872．4．3 | Suthem | $\begin{array}{r} 15,316,9+4\} \\ 167.03 .4 \end{array}$ |
| blents mad shows，futhry proulut | ${ }^{\prime}$ | 1314 |  | $6{ }^{6} 96$ | $3,074.466$ | t，\％0， 6 \％ | 10，33： 3.312 |
|  | $\because$ | 17 |  | 6150 | 332，42 | 51336 | 1，042．469\％ |
| Lumpar and wher mill modmets fran lage or butts．．．．．．． | $\because$ | $8: 3$ | 11．483， 417 | 8.583 | $2.5146 .00{ }^{\text {a }}$ | 5 5．150， $0^{41}$ | 10．904，438 |
| khip bmanding．．．．．．．．．．．． | $\because$ | n5 | 1，02，\％rsi | 1.639 | 4．3．1．15 | 1．43．375 | 2.518 .50 |
|  |  | b |  | 715 | 373， 380 | 1．930．0．2\％ | 1，40，411 |
|  | ＂ | 11 | （1） | 2013 0.11 | 466.85 |  | 1，818．611 |
| 1\％har athl erist mill prambers | $\because$ | 211 | I．141． 4 M 4 | 413 | 18i， 2 an | 2，Kitiongh | 3.25468 |
| Fommary and mathine shop prentuets | $\because$ | ？ | 3.024 .43 | 1.5143 | 1，1141， 163 | 1，13900 01 |  |
| Fisho mbming and presersing | $\because$ | 3 | 52\％．40 | 2．391 | 41.1613 | ¢¢иt．fin |  |
|  | $\cdots$ | 41 | 1．014．19＊1 | 2．133 | $\because 15040$ | 761．71： | 1．192，6\％ |

More than low new mamfathring induatrin ware wahb


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 ing split into sery thin platos，and its color is a dow black， unchangeabo by exponte to weather．Saine stand tiry among the Statia in the amount of capital insented and persons emphayed in granite guarios，and second in amomat and value of prodat．The Sew York state laphen at ．II－ bung and the Metrowlitu Masmom of Art，Now York，are constructed of hallowedl，Kernethece，granite．Mame hemh the list of States in the value of lime producel．In Kimax Comoty large quarrics of very pure limestone are＂peratel exclusively for the purpuse of harning the preduet intulina．

The following is a smmary of the quarrying indatry：

| Classification， | Vo．of quareine． | Capital． | Preant． emyployrd | Wamex ${ }^{\text {and }}$ | Value of prodart． |
| :---: | :---: | :---: | :---: | :---: | :---: |
| LSthes． | int | 31，131．．nh | 1.1703 | Enatus | E1．5世3，H0 |
| Slate | ， | 611，（k） 0 | 3010 | ［1913，3m1 | ！ 11.1 km |
| Granite | 103 | 3，113，314 | 3.133 | 1．51\％，（2t） | 2－2．5．39 |
| Totals | 217 | S $1.463 .51 \%$ | 5.104 | S3．35\％，151 | 83．th3，384 |

Fisheries．－In 1Ren the prodnets of the ressel fi－heri－


 hand－lines，trawl－lines，batocts，atul seines．The prombes． for Iss9 were 91.201034 th，of linh，mollusks，and ermeta cenns．The labater－tishery is the mat impartant une，the value of the cateh beine sitation．Noxt in impartance aro the herring and the soff cham．The latser part of the clam eatch is salted for lait in the line fisheries．The smelt is an imporfant fool－fish abommenis in the chast riwers．The sal－ mon is eonfined chiefly to the lemeheod river．The total catch in 1889 whe $150,70 \mathrm{ll}$ ．The thal－fishery has at－ vanced greatly，and is greater than that of any inher Sow England State， 88.800 Ib，beiner taken in Nsa．Thu share fishery industries ald greatly the the of the tisherion． Thog inchde the camong of sardines，phan herrime men－ haten，clams，lobsters，nol mackerd，and the smoking of herring．
The followine is a summary of the finerics of the stata accorling to the censas of 1890 ：

| DESHENATHIN． | Number． | Vslue． |
| :---: | :---: | :---: |
| Peranns eintloyed． | 12，${ }^{2}$ | ．．． |
| Fishormun ．．．． | 111，911 |  |
| Shoremen． | 1.523 |  |
| Capital investri． |  |  |
| Vexsels．．．．． | 123 |  |
| Brate． | 9.3017 | 20．5．fin |
| Minor apparatis |  | 810311 |
| Ophor captal，wetolimat whre proparty |  | 1004，隹 |
| Promolucts | ．．－ | 3．114．．心爯 |
| （forneral fishorfoes |  | 3，0！ 1 limit |
| Menhatew tishorty |  | 11118 |
| Ogitur－lishery． | $\cdots$ | －ジが |

 ports of entry－hansor，Bath，Rolfat．Catime，fremothant



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| Denomivatins． | $\operatorname{costan}^{2}$ | 1\％，uretin． atid Lathe． | M，muturs． | $\begin{aligned} & \text { bale } \\ & \text { clurh } \\ & \text { prifery. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| Ruman＇atholle | nn | 4 | 只： | ㅇำ足： |
| Wethandint F．jlicrapul | 3 | $3 \%$ | － |  |
| （ongrexatumal |  | 2\％ | ？ | 1．5\％ |
| Paptist | 23： | ＂12 | 19！？ | 5015） |
| Frotexill liaptist | 2－ | 2．3 | 1． 2.4 | ： 51 －${ }^{\text {and }}$ |
| Cuisumalise | H | －1 | 3：311 | （12：${ }^{\text {a }}$ ） |
| Cliristiaus | ia | 8 | 3．1．1 | －6．30） |
| Protextant Episeotal | 2s | $3:$ | 321 | s．4i，（\％） |
| Splrimalint．．．． | $\because 1$ | $\because 1$ | 2rem | 1stuctul |
| Initarian． | － | \％ | 4.45 | 206．0．01 |
| divent Chrimian | 4.5 | i： | 2．31： | 3－9101 |
| Friomids | 23 | ：3 | 1．4 31 | 4，40， |






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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 107 |  | 110 | 11\％ |  | 11\％ |
|  | 1ヶ゙い | Watarvilit． | 11 | 1．15 | Stis | 215 |
| Rattos Corloorn | 1－193 |  | $x$ | 11.7 | 50 | 1tis |
|  | 1 － | ＂rumse． | 4 | 141 | ． | 14 |
| Banger lhowhgotalかom inary | 1411 | Rathgor | 13 | 4.3 |  | 43 |
|  | 1－゙い | リットばいいた。 | 7 | 2\％ | 1 | 23 |
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Wharitofle Reformatory and Iranl Institutions．－These emmprise a state prisum at Themaston，in which the prise
 atrution in realling，writing，spelling，buk－keeping，arith－ matio．wonmahy，and histors：a chate refom sham，at （＇ape Flizathith，which has at amo of 1 st acres，a mechanimal shom，a library，radine－rom，and an entertammenthall
 lubluatrial schom for mitls，at Hallowidl．which is not a homse of arreation．hat a refuge for girls letween the ages of spen and fiftern vears who are in dinger of talling into vion ant immorality，where they are taught to herome solf－ smporting：a state insathe asym，at Augsta，whith is in－ ablomate to mont the neats of the state；a military and nawal orpham asym，at Bath；the Mane General Ilospitah， at Porlami ；the Mane Ewe and bar hatimary，at Porthand； and Gond Will Farm，at Ean Parfald．Whar boys of gex Wharater and promisa are sivan lames in attractive cotages


Post－offices and loriouliphls．－1 In ，Tan．1，1stot，there were 1．170 posternines in the stathon＇which sis were presidential （3 first－class，！seromb－chas，th third－olase）and 1，112 fometh－
 Of perionimats，thre were 1 finaily，sumi－wnekly， 106 week－ ly， 1 bi－weckly， 5 smi－monthly， $\begin{gathered}\text { si monthly，anil } 5 \text { gharter－}\end{gathered}$ ly；total 14．
 of 1,000 volume and upwarl cath，in 1s：11，showed for
 volumes and ！ 0 ates pamplets．＇lhw limaries wore elasi－

 tion，8；Y＇．M．1＇．A．， 1 ；slate， 1 ；sumal， 10 ；schentile，吴；his－ torical， 1 ：and gariana， 1.





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 ＇l＇lus the whole const of Naine wan subjert to a dounte

 vicinity of thest．Croix amb the Pemenont，the Finglim ocen－
 taking evory ofrortunity tomeroach unat the other．The tirst Euglinh settlement in Niw linghan，with the single ＂xception of the slight and spedily abambend attempt of

 mouth of the komate in 160 ，thirtem yars in admance of the l＇igrime，and twontyon years hefore the l＇uritans of Massadinsets liay．Here they initiated what has since boen the loaling industry of Naina by buiding a 30 －ton vessel，whith they mand the Sirginia of sagmahoe＇fhe colony lackod a somd basis in family life and diversified in－ Instry ；and after a winter of hardhip，privation，and mis－ fortune，the settlement was abandoned．

In 1620 the charter of New Singlimd was granted to forty noblemen，knights，and genthomen．Two years later a patent under this charter gave to sir Ferdipando Corges and Captain Jom Mason the comatry between the Merri－ mac and the Komethec for bomiles inland．By a division in $162!\mathrm{G}$ Gryes rectived tha jurtion hetween the liscatagna and the Kemathec．The Plymath combil，eager to settle the comatry，made numerons small grants incomsistent with previous grants，introlucing murh confusion and giving rise to protracted litigatim．When the commil surren－ dered their chater in 16 fors diones retaind what he had already possessed，and sir U＇illiam Nexander，the Earl of

 ing the old hombaries on tha enast，astending his territory twice as far inland，giving it to him as the province of Maines under the fendal tenure of a connty palatine，and investing him with rice－rural powirs．In 1641 he estab－ lished his government，mader a kinsman，at Georgiana，now York，which in the following yar berame the lirst char－ tered city in America．Gorges ilimin 164i．Massachusetts laid claim to more and morextended juristiction in Daine ： and fimaly．her clams heing disallowel，it 1677 she pur－ chased the mitire Gorges interm for © 1.850 ．
In 169！the charter of Willian and Marr inchuted Maine in the province of the Massachusett－Lhay，＇i＇his relation existed for the following 130 vens．lmonire the lerench and lad－ ian war Maine suffercl soverely，bith in has of property and drain umon fopulation，hat contributed her share of mand and mans to the mantemane of the bigrish cause． The furion from the rapture of Quehere in 1ras to the out－ hrogk of tha liowhation in lia was one of rapil growth for laind．Weared thwnsalong the coant were repaplad， and new owns wore estabinhed along the sace，the Andros－ engein，the kimuthe and the l＇enobsoot．

Mane bue an homable part with Massachasets in the war of the lewohtion，suthering again severely in the devas－ tathon of the towns along the const．＇Ihe chene of the war was follown hy a large actission to flu pophation．Mang of the disharged soldiers came to take ap the new enstern

 in 18：0．The growth betweon inlo and leso was greatly re－ tarded by the Emburgo Ant．passed in 180n，and the war of
 almost destroved the imbletrios of the slate．In 1815 aml
 haine berathe it warate State．Politioally Maine was an

 that the le ban ratice party low control of the state tirst through its adwaty of jombiting the liguor tranice in 1s．an ；and again in jx．5 when Anson I＇．Morrill arriad the
 law，and of the linownothing party．In 1N5t the Demo－
 Lagistanm．＇the year 1850 mark tha rearangement of



 mion of the bomeratio and Grentark abombors of the

 devolval ugnin the dagitature to edent the（onventur．Dins
 refused eertifiates of wertin to wotal limpublican mem－ bers on the gromul of informality in the returns，withant giving the emomary ornartunti for the phblice corren

 situation was romplicuted by haten of hatury hromgh

 Chamberlain，as commander of the milita，preserom corder and protected the fropurty of the Shate：and hy his tirm－
 of the contest．In accordance with a droinon al the su－ preme Court of the State．a licpublican（ionernor wa－jan－ gurated．In the following year a Fonson downom was elected hy a sumder phatity，Sine laso the firmbli－ cans lave carried the Stute continuondy by largu najorio ties．
Soon after the traty of $15 \times 3$ with tireat Britain there arose a diaphe abont the mothomern bandary of Mand
 the boundary was settled by the Asharton Treaty．At thin time Mane lost 5 ，othe sy．miles of territury．fur when the received but a meager compensation from the matinal（ins－ erament．



 enacted．since that time tho haw has bond fropurnty
 hihition was embalied in tha contitation of the state．In 189）the law was still further strengthond ha making the
 and costs，and in ablition imprishmont for sixty days：and

 is a seller of intoxicating liguror．la sume satimas of the State，under some whicers and at some times，the baw has beren fairly successful in presention the sate of intuxicatime
 viblatian of the haw has hana＂arn and tharrant．Whild during the greater partion of the time hoth politional partios lave heron momally in faver of prolibition，neither of them has given the law that consibuat and persistent suppart which is necenary for its complete success．The prohihitury law has in great imenure made it imposible for the ligmo dealers to contral pultion partios．He has mot．however．per－ versted political partios，when in power，from seeting to an－ trol the liguor－denders in their own julitional intereats．I＇ru－ hilhtion in Maine has been meither a perfect sucmon mor a eomplete failure．
In the civil war Mane met avery call of the ganafal trus－

 war．
 syatm．

W゙ra King（rpsigntid） W．．，W＂かliantan！lactafmi
Althions $k$ lurris
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 ＂abert 80 K，ohert \}" Jumbatr
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Sohn Fairfteld
F＂dwaral Kubst
Fulwara Kobst．
Jolin Fairsbelis
F．Kavamadh no fink
Ilumh J．Azthersurn
John W．ITan
John Muhhari．
W．（a．Cromly
Anson I＇Morrill
Samuel Widla．
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 W．Willis．Mistory of the latio the ！ourte und the hont－

























 sur le faculti do penser wos a juige from the Fromeh lami－



 lifetime only a fer of his minor mave wer frimed．After


















































 sirtmally imbermant for mans yare hofore the jow of







 in lireme（ 1.416 ）；Fiallantayer，（beschichte der Mallomest



Manpuri：the capital of the district of Maimuri，which furms part of the Northwe－tern l＇ravine，India beet mat of

 to the time of tho Mabablathat，and the new town which was fenmed in the herminer of the nimetemth wentury．It


 canals．It is moten for its cereals，cottom，and sugar－ane．


11．W． 11.

 a－小din＋d hy dat lake，is＂a takiner in hand．hariner apor

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 tain hif caus for him，on the whemtanding that he hat the right of＂tatren oner hin diont＂Sugreat wan the





















if tha aid is given in gomel faitho it hows not matter that the rich man is umsensmably dupel，or that be ato thempht－
 Panh bivision ond．





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 tu institute an antion fur the jemalty，and gave hima hond of indembity agamst all cost and dixam he might incur． Clark wa defeatem，on the eromed that he hand mo right to she fir the phataly．As he was mable tor bay the crots of the ation，Bradlanoh sued Newherate for maintenanee，and
 suit．Chiof bustice foleritge，in rathering the decision， onde of the antion an of the ratert mandern times，but
 lee in sonte casts the enty wat of redresuitrg a cruel wrong． Acomding to this cast，mamenane anmist in inducing or asisting anther turine in preserate an illegal action．
In mant of the V．$\therefore$ maintename．buth as a crime and as a turt，has hem atwished，or hat newer exited．（sichomp is．Sthench， 40 S．J．L．1：15：Richerdson ve．Rouland， 40 （iomb．5tan．）Fwen in those atates where it still maintains a fontholla a corrupt motive or the hindrance or perversion of justice，is helieved to be anessemtial element of the offense． Whererer mantenatuce is illegal．a contrat involving it is wid．Sere Stobens Mistory of the friminal Lan，vol．iii．， ch．xaxi．

Francis M．Berbick．
Maintenance of Way：the dopartment of a railway or－ qanization whith has charge of the sepairs amb romals of
 tions of this department are newally under the charge of civil empiners caldel rommasters，who sulndivide their di－ sixime into surtions．on which gange of men are contimatly al wark．The expenses of the mantenance of way of the
 of the total expmes．se Rame millimwars．Also Paromsis Trach（New York，1546）．

M．Merrimas．
 de：wife of Lanis XIV．：turn of molle Proteotant parent－
 1633 with har parents to Xartinigue，her father mot buing allowell to roman in Frame on acomat of has alleded trea－ am．She returnel in 164t；wa－sent hy her relatives to be
 becane a lioman cathelic after a home resistances she was （16．3）－fio）the wift of scarran，a whic jere of inferior posi－


 fowerful intheme ave the king but it is mot helieved that she waser has minturs．In fiact，it is stated that she per－ sionemty refust to listen to his solioftations，and used her inthene to reform hi－daractor so that his life mipht no
 （o）the emo of his life，but in the later yats of the reim she ＊ands to have gromaturly weary of court life，and in her impationco to lue ofl to si．e ey she farted the hedside of the diag king．In lifo：the king married her in private，






 hle．

## Mainz：At，Mraz\％．









 only：second，for all the ridhly dowatod warm of the dif－ tereth and sixteenth centarion and simm that tume of which the Inatered wates are maly a durtion．Thina lat is the wome




 in which ease the tern is rather at tratr－anam than whe

 wares of less beaty and importane than（ho fan furen．
 ghan out with slip，of fotters shay made very thin and lignid，or in somm was with lead－nland

The town in whits the famons and lotmatin！tuandiat was made are sitnated in the northastern pari of lats，with

 （＇astel Durante（now［Thania），in the anciont darhy of（ro

 near Permsia．A sere of towns dippute the palm of excel－ lence with these and their wares all haw merit and hatuty． Costelli，in the Abrazi．in remarkable for having kopt it fine work going in a much lator date thath the buthern tuwns．

The pieces most commonly decorated in an claberato way are drup－phts，made for the diaporing ontathinmonts of convents and prineoly tevitomess flates and round phatere． some laving the rim or maly very hrad，and a small． decply sumen center，and others barly flat，slighty con－
 forms，and some few sperial and maghe piows，suth as an object like a hare tortomonholl．a pharim louthe or flask with rines to hold a cord，a phape sor richly paintol an to he a picture on pettery instad of cancas on fayr．＂Dhace furtable obperts，with square tiles for floors and watlo．make ap the chicf part of the finer wares．some of thoer and of
 dark grean，dall red，dull yollow，and similite ednes：the


 and strong in colur．Ghere are paimol in whit．on an whit． ground the two tint dithering shighty．Shars are emaned with splendid compuitions of figures，with arehitwethral on
 beantifal or more worthy of study than fine maiolicat．Wine ancient pieces bring entrmona pricen．Many of thom have
 the nimetenth centary．

Litorblationgers．
 b．at Kirajosa，Lommania，in 1410；studiad at lioma，larlin．
 was chonen a representative in 1 sil ；was Minmate of loblite
 a prominent position as a critic in recent Rommanimb lnata－ ture．Among his writings are Limiges Philusequische in gemeinfosslicher Form（in（orman，ivil）：Joum sumina





 On its banks，athut s milun S．uf Sathave wia forught the
 Chili，end mare remitely．ownel the way the thasan








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 the Bow of Mascipline and comblacted the fremention of Knox for tram dotai：hat a detate with Kines on the in－ dependence of the chareh 1．abt：was at leat cegmizant
 lut son revalid：Was prown at the coronation of danes
 the conferenors at fink in tha same yar：was armested，that sum liberated and joined kirksoldy of firane in sulport of
 15：2－：3；surrember May 3：died in pison at leith，Jume
 the scotland of Mery stumit：e Histary（a vols，Lambon， 1世ni－mi．

Maitreya［Sam－kr．．full of lowe toward all lueings］：the

 saksmani is sidf th have mat himad apmontol him his



 whore．

R．L．
Maize ，Indian Corn［maize is from Span motz，from Jtaitian mohez，nanzel：the tunt important grain raisod in Surth Ameria：bamping to the trime lhilaride of the natural moter cimmenet．up grases．Its secientifie mand is

 this efremmane it－common name is derived．Its coltiva－
 and Ina，and inte Korthem drien，where it epreat with
 probalaly it mive of the ththelamts of Maxion or Pera，the great hogeh of whing gee them a dinanct character from the lowhats in the same latitule．It thrives beet under a
 a fuentiar walue for high mothom latitudes．where the smo mer hosat is as intonse is the wintor cold．In Great hritan the sumber lata is mot allicionty intense to fator its prot duction，and maize is bery litthe，ewwor in any part of Fa－


 fertilo，well－onltivatel thomengly Irainel suil，for thomet

 gram and the forage itn ita lames mat etalks．The gran is


 of shacom－cugar．
Gulteration．－In order that the larerot atmont of erain may he prolucen，it is meseary that athatant rimen be






izine material（（enarer farm－yard manure），which is usually aldeded during the winter or carly string to the hand．As sumbe the latad is well seluhed in the sprag the manure is ：arnol umber to at materate deph，and the hat bronght intor fine comdition of altivation by mans of the harrow． cultisater，and roller．Plantine in not done unt il the ground ha become somewhat warm－anally in the maize belt from
 shald not he phated until the white－nak leaves were of the size of a squirrels ear．＂lamadern times wintith arricul－ ture has changel this rule to＂such a time an the soil has attaned at one inch in depthat temperature of an at 7 o dock A．M．＂Tbe yomer maze is carefully cultivated，the gromed theng kep lonse and fre from weels unt the phats have takion complete pussension of the sobl．Ifter this eultivation is aften entimad in order to preven bas of moisture by evapration．In those prtinas of the［．S．where the stalks and baves are of value as fond for anmals the crop is cont and gathered into stows when the kernels are well rhazed， Whell the stalks have cared the grain is removed from its hask and the find der preserved in barns or stacks．All of the oprations of cultivating maze，induding evan cutting the stalks amd huskine the grain，are now done successfully on a large sonte by horec－power，st that the cost of labor in prolucing a bushel？of eorn has been much reduced．In the wrat majer－growing regions the grain is stribpel from the standing atalks，lithe attompt heing made to ntilize the fodder excen to turn it into the gromid as manure

Where maize is crown wholly for forage formerly it was the enstom to pant it mach thither than in the case where it is grown fur grain，the result being a larger amount of somewhat finer material with no gram，and of somewhat re－ ducel feeding value．With the adsamement of the practice of prescring maize in jits or silos（oee Exsinatie）the xystem of growing maize for fobler has ben very much changed． and now it is the costom leg the mone adsanced growers to raise fomberom for preserving in silus in practically the same way an if it wore to he raied for gram．and when the plant has arrived at its full dewhyment the whole mass． grain，stalhe and leares．is gut into the silo．

Composition of $1 /$ miza．－While maze has always heen largly used as an article of hman food in North Cimerica， it has never fern male nse of to any extent in burofne and the exprtation of maize from Xinth Ameria has been very suall．Since 1 s！ 0 the $\mathrm{L}^{\dagger}$ ．S．Wepartment of Agrientare has taken equchat pains to bing the value of maze as a homan fond to the attention of the varims bimpan conn－ tries with considerable sucess，and the expertation of maze has been greaty in wased in enserpuence．Maize does not Wiffer ereatly from the other cereas in the propertion of its fond constiturnts，and it contains large amonts of the more important nutrients in astate of easy ligestibility ama aval－ alility．Below are given analyes of maize，wheat，onts，and harlet，taken from the latest compilation of amalyen of Smerican fedinestuth－ly denkins and Winton：

| COSSTITEENTS． | Maize． | Wheat． | Osis． | Harley． |
| :---: | :---: | :---: | :---: | :---: |
| Water | 1119 | 115 | 110 | $10 \%$ |
| Ashl | 1． 5 | 1 y | 30 | 44 |
| Protuin aldathatmods： | 1105 | $11 \cdot!$ | $11 . \%$ | $1 \% 4$ |
|  <br>  ar．ettr．1． | －1 | 1＊ | $9 \cdot 5$ | $2 \cdot 7$ |
|  | 696 | 714 | 547 | 698 |
| Filion＋xtracl armaleratl． | 54 | $2 \cdot 1$ | $5 \cdot 1$ | 1 N |

It will thas be sem that the chief differene betwern maze and the other cereats is in its smather propertion of ashamd allmannoids，and in ats larger propurtion of fats．Since maize is sochaply and suradily urown，not only the grain but the stalk－and laves form a mon imporant soure of fonder material for domestic animals：Jaza fodder，i．e． stalk amblaves，is comsidurably larking in its proportion ＂f allommimin－or theh－making mate rials，but in this reviect It is not more so than timathy hat，as will he sen from the amalyon apmodel，takin from the some alrmaly quoted：

| Cosctitients． | $\begin{aligned} & \text { Maire } \\ & \text { fodidur. } \end{aligned}$ | $\begin{aligned} & \text { Malre } \\ & \text { atorer. } \end{aligned}$ | $\begin{aligned} & \text { Mn'se } \\ & \text { allake. } \end{aligned}$ | Timothy． |
| :---: | :---: | :---: | :---: | :---: |
| Watur． | 12： | 111 | $\cdots 1$ | 13.2 |
| AW | $\because 7$ | 3.4 | 11 | 4.4 |
| Protoin allmambandst． | $1:$ | $3 \times$ | 17 | F． 9 |
| （＇rud＋tilut ．．． | 14： | $19 \%$ | 10 | 40 |
| Nitrogen freq extrael estareb，nimb ar．•4 | 310 | 31.9 | 111 | 450 |
| Fituratraticmote fati | 1 i | 11 | $0 \cdot \mathrm{~m}$ | $2 \cdot$ |

 its long period of enltisalion it has spurtml thlo a laren
 general way into liva wellanalkal grando or ravon．f－fal－
 corn．J＇robably the origenal naiza wan farsiotsenl with a hask about the kormel as well as atmat the arar．amb it is










 is une of ithers firsiations from the original typo

 ine quality of this class of variotios is that when hatad rather gajekly the kernel exploules with consmberable forere and the cornombs matter borman expanterd into a white bloury mase．The swertentus also have a kurabl latraly made up of rermembe mattor，but when dry thoy format a


 in the green state they are math entormond as a table were
 one－half to two－thirels of the whole bulk of the keromel ren－
 difurs Irom diateorn in that at the tene of the kertand there is a charactaristie dopession，amel the stapely matrotial




 froprotion of fat in the swedtcertis

| cosstitienis． | $\begin{aligned} & \text { Ilent. } \\ & \text { cires. } \end{aligned}$ | 1 llal． rata． | Sweat carri． | $\begin{aligned} & \text { Pul. } \\ & \text { curn } \end{aligned}$ | soft corr. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Wale－r | 106 | 113 | $\cdots$ | 101 | 13 |
| Ash | 15 | 11 | $1: 1$ | 15 | 16 |
| Prentoia Mlbustarmilat． | 11） | 111.8 | 11 \％ | $11:$ | 117 |
| （＇rimite tiber． | 2 ： | $1 \%$ | 2＊ | 1 ＊ | $\pm 11$ |
|  |  |  |  |  |  |
| （starid）．sumar．He．1．．． | （1） | （1） 1 | （ti） 4 |  | i1） |
| Fitherextrime crate finti． | 5＊11 | I\％ 11 | － 1 | $5:$ | 5. |












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11．ハル 11．W゙いい。











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## Majolicia：Sce Mamonat．





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 them mand i-lama). "The buthern part of the island is










Major siale: in masie, with a major thimd and serenth. e XOHE and siosta:


 hathor, amd mamy reanels visit it to hake in prowisions. It has atare trate and is the manket for the fertile valleys



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 member of Mumblathl Butin atodemios: was awardeal

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IJ. 11.11.
Malacea: a city: rapital of the liritiol torritory of ha-



 lemaner. 11 is a very medent city, and was foequanted by





M. 11. 11.
 Jenimala from the i-hand of sumatra. It is 500 miles in lamerh: its lromoth varime from 35 to 1,00 miles.
 sulymod by what to be vontrated from Mal ahhiyguh, nas-

 and adminictration of Nomomiah, later that fois B. C. (See
 the sunfurt of the priato and the tomphe and the fritets have in turn herome maglig+nt, bohb in then can of the worship
 T-IS). 'lohe mation. in the permon of its lading eitizems, and whm of its priasts, in intermarying with foreigners (ii. 1016). and is committing this ollanse" an seond lime" (ii. 13). bispurailly in virw of thase offenses. the prophecer insists
 hold I mad my Angel" (Mal, iii. 1; if. lix. xxiii. 20, 23;




 wrobe law buxk ur simply that of the how itrelf, in eithor
 bobli. Val. iii. 1. ar batier the Exombs text refermed to in Mal. iii. 2 , is citad in the (iongels in commetion with dohn
 John the bialitis.

Malachifu |from (ir, paráz $\quad$. mallow, from its ruman-







 gilsk, in the I rals, has yished mearly all the malablate





(i. V. K゙とN\%.

## 




















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 winn. 'Pherelinate uf Malaga is romarkally elry, smany, and













Malakoll: : mat of ther frimeijal wark of the fort rece of
































































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k…dah


TMas












 Макк W. Il trmasumas.






 mate the Matays the type of a tith or hown rate of manakim, the others rexat than as comentially Mongolim. They are of a hown color, have hank and oftell curbed hair, and promment fachal bones are shot of stature, and as a rule comracrous, bat mastalle and sulijecol to fits of nu-


 Entusication are the mand riows. The Malay ane in-

 athe that interemond with unserumbions Lurnumas and

 math for mak then treatherans and deedtful. Formana1s. the Datars have a patriatehal sestem of haver which hate jovented them from bernaing ath agressive and far-
 Fondmes for mosio and diompard of death are ahmest miseral. Thuir sureallen civilization is small. There are manufatures of weapors, of monnental somd and libigreco Work, amb of fast-sailing that small wesels of puectiar cobsstruction. 'The porphe are largely pugated in agrioulture and trade. The stamberd hathy lamare which holange to
 actor, li is the commorial languapo of the East, and has heen callet, for to suphony, the ltatian of lait. The lit"rature is athonant, and bears stronemarks of sanskrit and




Malcolm: the name of fomr kines of somband. Mak-
 Combtar by the Brefo-taxan king bimand to the king of the Sonte. The lather was killen while trying tosupmes a



 Bolward the Comfome. After the Nomman comparal Eigar

 The katter requivel hime hopitahly amb marion his siater







 bat were hrimath terterme, Vare the sugmeninin of a sece
 fourth yar of his ace

Nalcotm, Sir duns: whtion and diphmatiot: hat bum-







 Ehe" hateres defeat at A-saye. Marine the waming yare



than tuforpe and repurnoll to bineland in 1s12. He was knighni. wrom his claturatu Mextary of Persia (z vols.,
 tion ha the athed forse. Ho returned to the East in 1815:
 as suend in command, wh the rank of briphder-meneral: distinguind himsedf at the matle of Mehidpur (1)ee. wh.

 Prat Indu (1-23) and his Imhtical Ihstory of India from
 member of latiament for latateston 1saj. It in Lon-
 ory in Wrexminater dahey and an mheriok 100 fret high at has native plate. see his Lific and rorrespondence, by J. W. Kaye, 1nith.
 saw, Polind, Jume 3, bate His father, a polish qeneral. tabe his son a Fremblatuation. Ho began his military
 ltaly and switzerland : stmbed bustish literature and pro ticularly the works of byrm. In 18:2 her returned to Wisrsaw. If that time ho hat writen a mumber of short
 and meral redmo it a thandy. Helene. From Warsaw he retired to Whollynia, where he wrote his enlebrated eple, Mur-



 May 2. Inotio at Wiusatw. His productions were uriginal thromenat, but his talent was hon rewenized until after his Wath. Marya has sine been rementedly edited, and translated into Enclisl (landon. 1wit), l'rench, German, and luhanian. Thourh ormaimal reminisences of Byron maty fombl in his works, Mallarwoi differs from the Engrlinh ["et in the deep religitus ofirit which pervades his Fin mis.
J. J. К゙RÅ..

Maldah': tumn: in the prowinee of Bengal, Dritish India: on the Mahami, an athamt of the Ganges (see map if N. India, ref. i-1). It is perrly built, with narrow and filthy strects lined with decaring lomses. Its weavingfactories once very artive, have falla into decadence since 1810, being transfered to English bazar. 3 miles $S$. The survoming districts, which in the rainy saxun are com-


Malderhem: fown: in the provinow of East Flanders.
 and Belsimm, ref. 9-i'): with celdhated lace-manufactures.


 riser, and the boston and Mane Railrome : 4 mites $\mathcal{N}$. of
 fathring estahlishments (reperenting is imbustries) refurted. These had a combined? capital of $\$ 7,050.416$ : cm-

 'lha prine ipal immstris were the manfacture of rulber



 no for publit: ducation. There are 4 libraries (Bazar,





Malden Island: a sulitary coral ishond of the South
 It is without firghation ur froh watur. It has supplied a
 in Exbif.
 able lime of coral indands cowndine fom of the Malabar chate smothward for en of latituh and consixting of the Lamaliwe. Minikni, the Mahlives, amd the Chages Arehi-


 ramed like a chated chain lomg on aner. 'The whole group


 mated at 12,000. 'Thare ara fomt charton] of the majo and 200 are indabited. 'The isleta rion in man mate than b
 of area are "xposed, but at high wabre this is rombeat to 30 sor miles. 'llut jopmlation is "stimated at 20.000 to 30,000 .


 hat fresh water can be easily ohtabowd by digitue. "The climate is temperate for the liatitudr, but is very montatho-
 swamps, Violent devirs, the arnsional beri-bert, and dangerons dysenterime are sure to atmok the newernare

 the people of Jababar, amd alse beeray some . Ifrican intermixture. 'They are short, dark ealderemborel, fenta, howpitable, cleanly, domastio, and attectionate. "Ithey are diided itto six relas-s or ciatras.
These inlands were apparontly known to Ptokny suml
 est times, athl are aow how-rturd loy a shltan of andent lineage. They were converteal to Jshin about 1200 A. D. 'Thay
 and now form a nominal dejembeney of leylon. 'The ferofle depent for foml chintly on lish amd rice, the later innported. The charl exports are coir. womatats, amb mora. cowry-shells, and lried bonito-lish. 'The sultan lives on the istand of Mati, near the center of the eronfaramile loner hy
 toulah (trans, by bufremioy and sallumitnoti, is., Jons); Foyage de Fruncocos lyararil de la lial (1tia!); Ball, The Maldive Ishomis (185:3).

Nark W: Jarkriaton.
Maldon, mawlilŭn: town; in the comuty of Fissex, Foner

 has manufactures of salt athl sith, and breweries and irnofoumbries. Pog. (1891) 5,39 .


 Dablonado, is a fort-town, on a bay protected from b . wituls by a projecting point, but "fron to the s. (hee matp uif sonth Imorion, req. S-lis, loommed in J76. It was formerly of consibleralle impurtaner, hat is mow little used ex-
 $1,500$.
11.11.s.
 in laris, Aut, it, $160 \%$ of a rioh and rospectable fambly: was preventad hy afembe constitution from atterndam and publice sehool as a youth; when oblar studied thembagey it the Sorbonme, and entered in la6it the congreqution of the

 henceforth lae dovoted himsilf exehmively io phinsonhy, and after ten years preparation ha problumen his pribe ipal

 was still very promarions, hitt hy his puint ind cablbuls manner of living he reathed a groml old ate. 'Jhe -thly uf philosoply le atternated with that uf mathematios, its adder to sharpenthis jowars without harbunare his manmary. Is
 task to demonstrate the true telat bat butwern the tomithyo






 d'un Ihilosopthe (\%hriten of d'un /halrawpher ('humessur
































 and firater, hy". "Iashor (I.
lievised by W. T', Jabris.




















 berg. 14-!
J. I. Kris.

























 "F"ahtage wath atharath















 Wa- allownd tathe up ha romblaw for the sals of hiv










 whon he rophatal whh his wwa stemplices, and was just
 when hatnonte chat of the military pilice, recegrized him, diarmed amb arrabed him, am! discloced his fraud to the


 latter 1-10.

 of aheation ouslviner at home and at Paris, Hedelherg.
 fore, after whese drath (liwh he was fur a time without em-
 dafinated to the latter hrough him owt crowns. In 1600 he Won the attention of Marie de Madiof- lyan ode whemane

 ine the rat if hiv life he eomtinach to be a court port, ath-
 (ame tol the theat antherity of the werd of betters. 11 .


 ('hansons. It ows its impurtance not to pretic ferling and imasination. but to the phraty and apmpraterso of its lan-

 tury hat modichel hah lanenatre and literature with a vat


 wacabure of mity aml ablomity. Matherthe made the Frowhof Parie the simdard. proserited provincialisms, and


 of the lime and the casora in the ald sambrime be marken by
 the vand eritionsm that he adplied to others, and attamad a
 mese, harmus. athl wrance of worsibation that were un-

 the tobleng it wato follow for two handred yours and hats






 (Paris, 1801).
A. (i. (ixmati


 the bombary betwew arenoll and hata.










 marand after the dimolution of her tirat marrian the fa-


 dewanded to jerfertion, and to theo matiol mantages

 followine w, hom montary inspations.

Matic Arial [malic is fromlat, mathom, aphe]: a crys-


 in charrise gemednerios, stamberries, ette. It is obtained most anily from the herres of the momatanda when have not quite reached ripouse. The berries are pressed and buited with milk of lime. When the acid pases into solution as the calcimon salt frow which it is sel frex and purifiod. 'lartario and malie acins are related substanes, and hothare related to suce inis and. by chemical me thens it is pussible

 suceinic acide can in mad. from it. The rehations between the threm subtances ane shown by the following formulas:

| $\mathrm{CH}_{2} \cdot \mathrm{CO}_{2} \mathrm{H}$ | $\mathrm{Cl}(1) \mathrm{HO}) \mathrm{CO}_{2} \mathrm{H}$ | $\mathrm{CH}(\mathrm{OH}) \cdot \mathrm{CO}_{2} \mathrm{H}$ |
| :---: | :---: | :---: |
| ${ }^{\text {C }} \mathrm{H}_{2} \mathrm{C} \cdot \mathrm{CO}_{2} \mathrm{H}$ | $\mathrm{CH}_{2} \mathrm{Cl}^{\circ} \mathrm{O} \mathrm{O}_{2} \mathrm{H}$ | ( $\mathrm{H}(\mathrm{OH}), \mathrm{CO}_{2} \mathrm{H}$ |
| succine acid. | Malie or hydroxysuccinie acid | Tartaric or dihe droxysuccinic acis |

Malie a fil is known in three forms. The natural variety is optically active, turning the plane of parazation to the right of to the loft, aroording to the condentration of the onhtion. That varicty whilh is mate artificially is optically inactive. 'lhe optically inative variety can he spht into
 tha nat mal and, while the ot the turns the phane of polarization in the olpusite direction under the same conditions. Whon sabjertad to dry litallation matic acid is converted into malear and fumarie acids and mateic anholride.

## ira Remsen.

Malier [from lat. matifict, wihness, matice, deriv. of matus, bad\}: in law, dames (1) simply the absence of legal excuse, (*) "any cormp motive any wong motive, any departure from duty." In the firs "an it is callon ". malice in law." in the mond ""xpmen malice." In either semse
 to derlare it unfortunate. It is the chameden of legal monenclature, taking a different hue from each topie with which it is connectal. Ite virying shade of monang are derriled in the bumerns artiches on partionlar crimes and tents.

Maticious Errorise of Roghts.-The peocht article will the contined th the inguiry whe ber the percormance of an art whith one has a right todn with a gome motive is tortions if actuated by matier. Codoubtedly the Roman law answerel this guesinol ith the athmative. If a latowner dur a well in his field and thereby drathed his neightors well. his ad was legal if dome to improve his own property, but illegal if tone to injure his neightors. This is mater-- low to be the rule in so othand; and Cerman jurists deelare that "the exerion of a risht is not remhere unawfal by the fict that another i-damaged therety ; it is only unlawful torexereise a riaht soldy in order to injure another."
 In the langate of Lod Instioe bowne it "premens us with no sedentife analwis of the degreve which the intent to harme or, in the langage of he civil haw. the enimus ricino


 limanan doe rimes and is in faver of permittine a landewner


 has meshan's hight or air: he may hir in his hat with no wher objowt that to drain his mightmes well; he may cover lup promes with shanties and liot thom to objectionable ten-










 ( ascs 25 .
 a ereditor :




As a rule, a person is free to contract with any abo: lat


 his eontrat with the ethor anel eantract with himasalf. in

 wrongful in law and fact and wonlel sulaget him to in suit

 the doctrine that the sume persan, far daimir the sambe thang,
 ject to an actinn or mat, acourding to whether his inward motive was sultish or uncelfish. derdarium. "l thank tha no quiries to which this viow of the law wold lend ato dinarer ous and inexpediont inquiries for courts of jusifec: julaex are not lit for them, and jurios are sury until." |lis view
 sion in boum is. Mall has beron gromatly followal in the



 sion of another"s right.

Malicions Misclifef: in law, injurinir the froperty of an-

 but was malle bumishathe by the statute of Westminctor 13 lid. I., st. l.. c. 46 , and a number of later acts of l'aliat ment. (Atephen's Mistory of (riminal Late, val. iii., J. 1.ts.) In most uf the ['. . it has inen consmbernd hy the comrts an offense at common law : but in nearly all of them it is mow
 form of physical injury inlliefel with maludons intont unin
 onés own property. In theabstme of a shathtury provison on the sulacet, matiece means actual ill will aqainst the nwner of the poperty, or wanton crubly proventive of abrath



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Malicions Prosecotion : in law the intlionion of leand in jury apom another, by preatertine him from an evil mative and without probable coases. "The plantitt who buines an action for this wrong mat prove (1) that the jrasontutan uf


 it cansed him logat damage If le fails to exiallioh uther of these positions, be enn not reoorer.
 slow that the prevamas antion has tarmatatal in has fitbor.
 such donble litigntion permattomp. the phatatim "manht reo




 quirement has ran appliention, and tho part wronson may




 The proceceling is terminated when it hisi been ow dispreded




























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 ment. and the fate relation thereo are pexalanly withan the kism hedate of the defendiont.
























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 ton hank. be ('alifornial 1 ?

 bathe, as he wahl have been had the fremedine bew in hiv own name.
L'muthorized Action in Inothers Some-It me hring an action against another. in the mane of it thima, without anthority, he is liable in tont the detemban for the atmal danare sustained, even thongh he act whomt malice and with the toma fille belid fhat hiset is anthorizod, or will tor ratifed. If the suit is stomalles amb malicions, exemphary or puntion damages may the rewered.
 legal prowes agains another uman probable cana athe in a ralit form, and yet commit a tor by emphying is for some umawful grymet: as where he uses a warant of ateret to exturt maney, or tocompul the execotion of a gaper, or the surrenter of a right. As this wrome manats not in instithting the original proseration, but in perverting lawful fromes to the attamment of an olject not within ifs proper soper, it is immaterial to the manat mance of a suit for its redress, whe her the original froceding has termimated or was intituten bith or withon probale canse. The malicima abse of the prosesand the legal hamage to the present plaintifl monthte his came of action. Wood ws. firares,



## Malitiles : sue Amoxgras Indms.

Malimand Diseases: sefoner.
Mahignat Pustule: sime Isthran.
Malinche, or Malimfin (Mbmatain): Su Thaseala.
Malines: ser lembis.


 Aablemy, Lhate ham, Wedeyan Aeademy, Wilhaham,
 the New Enchat conferene in 1 sis. and serven in the pas-

 in Niow whents.

1. 0. 

Mallard, or firefohead : a vary common wild hack in Ẍrth Amorimand Karnn: kmow to semen as 1 mas hosehes It is the wigital from whinh haverome ahmot

 lohromblan agramerem hork and hand, with a tint uf

 - mallor, and bur phomag is fain brown. The mablard is
 S." liok. Revined by F. A. lata



 of of of the stramiat of the inmwather groups of lirench
 fur the orgat of the sollunl. We Dicatout. and fur Le Parnasse










 thons at Issue (Nicw Lork, 1s93).

Mallabilily: se Metals.
Malloco. mand-yak: prowine of (hili: A , of Biobio, the-


 mood of rich ngricultural lami. Many of the inhabitants ato anforivilized Aratiomian hodians. Wheratraising and


 h, whas.
lifrbert hl. simith.

## Mallemmek: Sec Whamawk.


 in 1son: in lan was almitted for the har of Philadelphia, where he pactiod law matil the civil war, and then en1.red the lnimarmy: afterward was promoted lientenantcolonel of whoteers and eaptan and brevet lientenantculome in the requar army. In the reconsmation period in mid-io, buing un duty in Virghia as judqe alvocate on the staff of the sucessive generals commanding. he was appuinted suredary of state and aljutant-general of Virginia, with the rank of brigulier-remerab. In Aug., 1sio. he was detailed with the chief simal oflicer of the army at Washington to carry into athe the bevisation initiating the meteurologieal dintes of the signal sorviee of which be was swn appuinted the exerntive ollicer, and for long perions was ating chief simal ohtier. In 1 sig be was ordered to the eommand of Fort Rice in Dakota, and there male inviotimatione into the pietorraphs and mythologies of the
 then in charge of the merey of the lacky Momatain ryson. for duty in connection with the ethoology of the North
 on wemat of womats receivel in act ion, and was appointed chief of the burem of ethology on its organization at Washington in that year. 1). in Winhingtom, W. ('., Oet. 2t, 1844, Col, Mallery was president of mans soleties and chubs-e. $g$.
 sophieal Simoty, and the literary Selety of Washingtom, and vieppraident of the Americion Aromiation for the dilvancement of cimere, and president of the joint commission of the sis sciontitic anciethes of Washingten. His most imfurtant works, some of which have bern trambated. inclute I Calendar of the Dakota Nation (15Th): Introduction to the Stady of Sign Lambaye amony the North -Imerican Indians as lltostrating the (iesture speech of Mankind (1s, Wh): 1 Colloction of Cisture signs and Signals of the
 Sign Lamyuye amony, North Imerionn Induns fompared with that umomy ather Popples and lenf-mutes (1081): Pictupraths of the Narth 1 meriom Indians (1ssi6): Israelite
 ing lig fisature (1591): Picture-uriting of the Imerican Indions (1843). J. W. P.
 firel designer of compumal leomotives; h, in the canton of
 at the bend. Centrale in 15, with the diphoma of mechanical momer. Attarhed to the werks of the suez Canal, he atablinhed the first workhops at lort satid and erected ther the fire dreders: then hecame enginer of the general dredging centract for the spaports of the kingom of taly. H1. was ene ianly wembed with steam-engines, luth stationary amd marime, and afterward shadid the aphlieation of thi command encine to bommotives. This suty, berm in
 motive of two eylimfers for the railway from layone to Sharrit\%, which were the orgin of the compund loemotive now wherally intralued on the hest ralways. In 1886 he
 the first for the Decanville railways (fortah narrow gatgen), bat their uan has extended considnathly since that time. It has publishad may memoirs on marine and iocomotive "ngines: has wlited the chromiqu" and the lreacedimys of

 France (Arabmy of samemes) for the applantion of the
 tion of the lacrien of lhand.
W. R. Ilettes.

Mal'luns [Mm\}. Jat. $=$ lat, malluas, hammer]: in come farative amatomy, anmall bome forming one of the chain of
 ioally answerine to the ghantrate bund wath whath the lowar

 and deriviuer its mame from it sham.








 thomarl matnorous editions. Whate wilines of thin aththor








 Combertiont ; setthed with his paments athey llist, Flat., in






 tary of the ('omfenderate mury. After the war (avin) he was

 samola, where be died Nov. 3. 14.3.

Mallow Fumily: the Mahtereme. A family of diontyle












 which produre cotton, whieh eom-ists of the Jobir haits ate tachand to thas sede of diossypmem, matives of the warmert

 See Cortux.
-11.alt,

## Mallow Hemp: side laber.

## 



















 Lard Malmeskury, his Finmily amd Fromela, id bites ui









































































 hlainer































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 1．Iharte Jherthur untw！thstometyey th tiatethey ther Byrth．












































 inteman！primarily for hens．The standarol edition is Sumbers whith has an acoratetext，rery waluathe staties
 t，Amdrew lanif om Malerys styla．It will be whemeril
 Leothan atere，and that the revival of intorat in it was con－ tempraraments with the romantic resival in omr literaturn．
 romantic material within the rawth of everyturty．The


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 What monotomon－whly teeasiomally dons he rise for suth hadiats an he reaches in the famons lament over Jamemot



（i．1．Kittrembe，
 Runen．F＇ramer，May 20．1siso．llis falher．a notary．ala－ coted him for the law，hat he never pratioed．It a merved a literary aplyonticeshij）on Inlats liougraphae gémérale，the Journid pour tows，and in enllatwrat init on dramatie works． lhe erdavitated surely toward the novel，and since lis debut in 14．39 with Les dmants，fixt pirt of Les tactimes d＂amour． has heen a prolifie writor in that tield．having written about fifty volumbs．Jlis works show a keen ulsartiation，the ficlal of which is mainly Fremely life mater the second empires，un intorest in the miral aspects of smedpt，mad an werasional temblatey tor semation．llis symyathy with children is guick，and his mus widely read look is a story of elifdren． Smas Fumile（lsix．known in longlish as No Relations）．


 （14．（1）：（＇implicts（1－4：3）．
－1．（i．Canfielu．



 ＂hief fhysiedian：hion there Nov．2t，j694．Ile was the hirst


 the arterias tia the vioinc．doseribued in his De I＇ubmomibus （16iti）．In mpalionl vefenme virionts gathe of the epthermis．


Malfathued，mant platian：a villaige in the department
 maju of France，ref．2－ti）：fimmak for the hat le which tork


 captare uf lons．

 the ront if biner verth melt］：harley uhioh has beren allowed
















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Malte-Bront. For. prom, math hinn, righty Matue (oms

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 his fremes de firmmphar l"niverselle. (iew graphy was at


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 J'op. ( $\mathrm{N}: 11$ ti. 10 .

Mahron llill. Bathe of: an envarement whin oce





 at ravine and wed ramine diretty the thame river. throngh what ravine a frouryly dirated fire from the 'nimen ernhata - condil flank the western fiace of the hill. In


 livionn in a shar antion kuown as the tight of Turkey
 lan wis in prition and realy lo mopt the Compderates at tark. He wac partionlarty vomer in artillery, haviner mam


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 with erat vigor, hat the magnitiont work of the artillars. wondeld hy the intante fire whirh was laredy reserven fir








 Jagis $\boldsymbol{l}_{\mathrm{ERG}} \mathrm{R}$.















 बhedly rests, beximang

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& \text { 1:rate-11i 1.1talan. }
\end{aligned}
$$



 farathe atide-tw-atup th the ureat patron, dying in that


 at Dimen, with an introluctun by Mazini, simald be consultios.

## A. li. . .nest.




 Pararnay enve this man" in am "operial maner to the slavehunters of san landor whe raded their missions, and who
 the Manmucus, deneribuel by desuit authors, never hat any real eximpler.
11. 11. s.

Mam'elnkes [Fr. mamelnhl: Span. momeluca, from Arab.

 shwe in liayt wholwame and hag remained the dominamt pephe of that enantry. Early in the thirternth century the Sultan of fopht bought of (inghas Khan 12,000
 mate some of them his bomly-guad. In 10.50 this boty-guard kilbel his sucerswar. Turai Shah, seized Ligrat and chose for their sovereign mot a man, bat the Sultana Chagereh-edborr. She marriel 1 heor lzzeddin, who foude the bathate or Tarlar-hameduke dymaty, in its turn owerthrown hy Cirfassan slaves in 180? 'The new Circawian Nameluke dyasty
 Though contiming subject of the Ottoman empire, the Mandukes reewertel madually their former guwer, hut were ahanat destmyed by Namenom Bonaparte at the batte of the Pramids (10as). ©n the evacmation of Egept by the French they aram asmmed (ontrol, but were treacherously masan pet liy Mehemet Nli ( 1811 . The few survivors, esaphing to New longola, were pacticaly exterminated in 1se0. The Mammakes were fomous lim their courage and skill in hosmanship. Their wives, who were of the same sted as themsehes and who were usatly obtained by parchase, were almost always chiddes in the untoward climate of beypt Their fow ihibten were generally feeble and shart lived : henee they lept nj their mumbers by buying shares th whom their property deorended instead of from father to sont.
E. A. Grospenor.


 momber of the rewhionary frovishal goverment of Buhga. bining afteward procribed, he was eaptured by an Austran vered in the waters of A Aerma. was condueted th Venier, whore he was kept a prismer four months, and
 dewoting himsalf to phidesophical and literary stadies until
 amb after the death of Pelegrino hassi he assumed temporarily the duties of Manister of Foreign Affirs. Haring 1ewn anded depmy to the koman comstituent asembly, Mamiani wombagan the repolia. On the arriva! of the Frenh he mired to fenm. where fonded the Academia
 liampont and afterward apminted smator. In wot he be-
 the the chair of Phibumby and of History in the Coiversity of Tarim. Afterwar he was semt as minister from laly to dibus. Ine then pesided in home wer the superior

 (hosides a volume of parms. in whidh the sacted hymas are pationarly noteworthe) are the following philusphical

 sioni di mh Meterisime (ed. +al. Florence. 1stin): Le Medi-





## 


 char of the verthtrate brand if the animal kinghom, and
 (patares. The chas includes all welthrates with warm
 f wo hrancher artionlateal dirently with the shall, and the
body partly or wholly mowed with hair. It than immblum man, all the hairy giadrupels, mind law varion- whate athel
 onic state and often then onty on the uppror lip\% Thre hatiat

 fishes. On the other ham, the very hiow of the mammak.
 the mamme or mith ulams of the fomato are satrely differentiatm. 'The characters of the mammak may he given in briaf as follown
 in no ofther gromp. It is fomme in the chaterso in whate only, and then confined to the upyr lip. lin the funn-
 some groups, as the armatilns, the skim is hardered bitua

 ossifiel, its different parts mome comant in the fommo oumbers, and relations than in the repter and five. The bertelral cohmon is divided into live distimet reanas:
 six or nine.
9. Borsal (back) werthom, variahle in manar, havims ribs attached.
3. Lambar (hom) vertelpere, withont rils.
4. Sacral worthrat, comberted with hates of the pilvis,
 ber. In the (etaceme and Sirmian- agmitic Alammalia, the petvis and hintor limbs are wating or aborten. In this case the lumbar, sacral, ami cambal berterne are indintinguishable. The first two cervieal wertebere are alwas mantitied as the atbas and axie.

The skall is wry charateristic, and may be divideld inte four parts: (1) cranium, (2) lower jaw, (3) anditury undans, (4) hyoutean apparatus. The cramimn, as in orlaer amimalo, is

 from the low forms to the hish ones. as well as whatare. In the lower types the sermented or puasi-vertebrated eharacter is mach more estem, and is in arration with the development of the hain. whose sereral parts are mowe nearly on a longitulinal axis. lathe forgres from the low to the high forms the seserat revione of the brain beentue
 follows, and in man the ewretral cavity forms the hargent portion. In the lower forms the hrain, and comserpacmly the cerebral cavity, incrase but litho, if ang, after birth; the subsequent growth bing ehiolly due to the development
 of the jaw-bones. Tha bram alod differs comparatively little in size in the members of a matural family, athonith the skulls may vary ereatly: the differences as tio the skills hetween lace able small anmak are due chichly to the nutgrowth of tone. The skull is ako moditient to atapt the animal to it - arroundinge, and consednenty in the aquatiforms, as the corncuas, it is cxemsely malitied.

With the amerour ribs at hast, at their diam pats. are connected a chain of median lomex or dartilacro dixiqnatol by the common mane of storntam. 'lhis atparath- is bery rariable in it- deredopment.
(1) The erimime is mot miform in ath the toon at the poterior part, and deviates mont at the dival anol fur ripherat


 condyles for the artioulation of the "hakluene." and theo. are connected aluwe the a bestome elemont the siffume-




 tem enters the skull, the "foratmen masman." "the the asal
 the basisphenomt; with the upher sulds of thinare combereal
 noids): with the anterior surface another axial entment (the presphenemin) artioulaton: and with the abler margun of this and the atherior of the alinghomint twatheral mements (the arbiloaphonum) ate comberted: thatly, "uh the

 element (the pherygud); theso subral dementa (t.e. bajo

























 in the embry by the enentere of andiantion: there form-

 internal !



 chack then: from the inferior fortion indendoned the them-



(2) The luwer jaw i-compneel of tworimple rami metmbl-



 artioulation with the skulf the manimabs differ widely from all othor vertobrates.


 C.tamams.

The limis are formon in the amo fenerat way atheneth

 in the marine forms. in which the himer pair are whall! wanting.




 ber und form sarying bath in lifferent grapls.

 the honderwith the stramm. 'The clandele pesent an man in mantine in mathy form.

The folvi- is formed by the sarmun and we hare com-




 patmotion ha kne joint.


 mal.









 the anterine conam-are heine bry later, what the wor


 and mforiof form are maty stmonth, while in the largur







 and molars, and they are unally implamed ly rent- in the jaw:
. limentery systom.-'The alimentary canal and its ap-
 rally dixtindive of the ernat.

Primitive Masmata
mie vary ernatly; the are without thats in the Monotremes,
 'Ihes are almon al ways on the inferior surfate if the trumb, amb "ither athmminal, inguimal, or on the lirmat.

Evoluthon the dientic hehtions.-Thu dans of mammats is so decodedly ditwornthatod from all oh hers, and its early hiswry is so fragnemary. that the exat line of desent of it: memper in matmarent. It is, lawerer, most probable that the origimal prequiters of the daso were mentitiel from
 that they cumbated into the prem tybes at a compara-
 the liasio formation-being quite - pecializel. Inquestionally, the Montreme are the mus repte-like: the marsupiaho and the phacental mamals are sherevively divergent and *achatized from the primitive tyre. The sucessive difterntiation and develophent of the varibus orders of the cha- may be exhibited in a diugrammatic form or genealogfaral tree. In this the more genemazel forms, or quasiondest, are repreanted in cath came lay theft branch or fork:

Ornithotelphata Domotrembala

$\qquad$
(Educabilia.) (Hueducatilia)

Mutilate Series.)

Frate Pinniperdia.

Proboscidea
Hyracuidea
Tuxudontia
Ungulata.

 the stram beine received and tramsmited by the right half of the quadribandar hart to the lunge for tebration, therein oxvenated and warmod, thone sont to the left side of the heart, and tinally trammitted through the system. Thus, ahturagh row mbling hirk, mammals are distinguished from the ropila athl inferiow vernhrates.
Respmitaty system.- Reppiation is efferted in all cases he inhalation of the air dired, and consequenty by means of the lanes. Thera are. in amman with the beart, in a sperial theracin cavity. - paraten from the abmominal cavaty by the diantram. Thi diapham, hy its alternate conit raction and oxparson, asorts the lunge in their inhalation



 distimguishatho berome gratly difterentiated in after life.
 dact communientedimedy withthe utrons and herehy with
 with the osario- , alt hanch in the how tyjen alammimat, in
 penis is almest aluays extemal. The were ite in the lowest type of consideratle nize, that in the whats atromely smatl. linpremation is atwats effected intwratly. The fortus in

 the teats by the mothers in the hinher tyan it is marishan! by means if a peruliar onterowth in combertion whth the conbryonal wall of the uteris (the phometa) in the womb. and when born is of comblemble sik ant quite mather it diverppment.

Tho development of the utoruc and it Pations to the





 (mummary, which iol the frmale arr highly curpalizeld and swrom the milk. The position and manlior of these mam-
(ieographical Disfritmion.- Mammals exint in almost every region of the globe hat wert wanting, previous to the ir introduction by man, in the lolynesian islands, as well as in New \%ealand. Monotremes are jeenliar to Australasia. Marsupials are now confined to Austrahasia and outlyine islands and Ameriea; in the former mumerous types heing rypresented. and in the latter but one-the opossums. Inseditiores are wanting in the regions where marsupials abwum. but are well represented in the entire northern hemisphere, as well as in Asia and Arriea. l'rimates are represinted enpecially in the tropat rexions of A frica. Asia, anl Ameria, but in very different forms, the lowest type (Lemurodis) bing now preular to the (0ld Worta, and best devenned in Matagacur: and in Africa and Asia the highest type (eatarrline monkey and ap"s) is also wistent, while in Anmiatall the suries are of an inferion type of monkes -the phatyrbine gromp. 'Tae bathates are represented anly in warm conntries, and have mont members in Ameriea (the slothe ant-raters, amatillos, and pichingos). The carnivorous mammals are grite widely distributed, extending ahost bet ween the extromes of the northern and southrin hemishores and under the same prmeric forms on at lean the centimental areas of buth the ohl Wrorle and the Now, Anstralia abo having bu represpatives except of a single speres of duy (ranis dinym). The Felde (cat) and Comide (leng) fanilies ate coperial! thas distributed. The
 reatricted to limited combrios. Phe umentates are in recent times mueh restricted: the Équide (hures) and Whinocerotide (rhimenernes) heing pecular to the wamer regions of the ohl Wheld, although horas have lecome feral and greatly ineresocl in mumbers on the phans of somth Amer-
 ohb Wurlif; we generic form (Lorvolunta) bing represented in Atrata, and amother (Elephes) in Asia. Bats, fitted by
 Iy werywhere; but many arneric types, motwithstanding
 thad in their range. The telacems are ahmandy repreanted in the polar regions by peculiar genemand species,
 and haw ahasereal \}nculiar fresh-water tyes in the tropies. Thout 2,500 spectem of Mamals are now requgnized.

Gealogical Runge,-For a Jong time it wam ladiow that




 attributed to the order of Namanala In tho 'lomiary






 into the followiner primary gromp: (1) -uh-chan ornithat.





 dontia, Siremia, and Cotacen; and (Ba) locilunta with a
 and (Bl) Jecidnata with a Mispmad pharmin (Lambontia,
 writers have follawed subtantiady this arratherment, at
 sombe uf the inder:
"lı上,
Linvised and abridend ba lo.s. dosmas.
 An Introduchion the the Study of Mammals, hiring and Fir-

 published by the Briti-b Mandm, are uepfol for the identifiention of speries and raforporo to lit.rathre ant the sub


 the mammals of garticular laralition, are low fonm in the Procredings of the Zaiblogical sinfio! if lambon, and in different dmerian perionlical
For the distribution of mammals. a. Murave, The (iero-




 (Lincton, 1 Ns (0-81).

 tive tratise on the sulimet. Smallar batt valathe works are

 brates, Owen (Lomaton, 1stif-1is); Lessohs in Elementary Antomy. Mivart (damdoti, 1s:ia): and In Introduction to

 The Fomilios of Mammals (1-2) is impurtant.
 The Quadrupeds of North amerim, Auluthon and Bach-


 in Aorth $\mathbf{A}$ mericans Pemma, a








 these shand the mentional the mannerada af Traw on the




Mammary dilands [mentmery is from Jat. matmona



 manmary glant. Gidinarly the mammary ghamdo of the







 into the math of the sumberamat. The Chamane hate











 and on the wat ral arpact of the lonly. hat in mumber and
 animals, like the anw, hase aften a pair ur two of atortion





 remervirs of milh. The nifile is alighty erextile and in



 The what it act is subject for many inflammatory, matig-




















 raluahm fur it- timbur.
Mammoth [fron libse. manont, mementa: vf. Tartar










 is foumi in the malat ur wrimlime teeth. 'There towth art











 paloctly pacerval in the jow and frozan ail of the Arerte

 'The thesh wan so bell preservent that hogs and wild andmals
 dish wom and longr hack hatr. This skeleton is now pro-
 fore fart of the -knll to the emp of the tath, wheh is imperfael. Parts of the skin of the hath the strone limament of






 mas have rum as hirh as Northern Siberian where the se ami-
 rupt, where they wore comberngrary with at least wo kimds
 threce kink of wilh wion (two of which were of larae size,



 the leabedithe and labinder aras they were contemporary with How, whw hate foft rule delimeations of this animal engrased on the ivory of its own dusts. Mach confusion has exivind anmong maturalints in regard to the species of


 late as the frozon drift amb jor-xelifs of siberia. De Blainville inclumal tho exinting lomban elophant in the species, thus mising it aratho thoth in time and spate unemuated by


 Ameria atrose the parallel of 40 , amd in time to the geatermary ate. Tha mammeth of the warmer parts of Sisth



 served remaine of the matombne feron the 'lartiary of













 -







 in tompratura, soldon varsing more than 2 from ins $k$. In sumbur timu the metatively rota air thows out from the







 Eromathy majoting themandros to its darknes; the others


## 

 seventh caliph of the Aha-side domast? b. at lagedal in

 death of his elder hrother, Nohammed II. el Emin. Ne was a mild and merofinl prince tolerant of wher religions than his own, but wak, irresolute, and mathe to hohl his ampire

 mal anthority. lhe was, howerer, distingnished as atatron of litarature amd sedober. Ile bimself wrote serembuoks, amd. like his father, mate hatalat the centor of learning. Ila hat the masterperes of the Greaks thansated into Arahies, amd the first trambation of Enclind esor mate was dedicatad to him. Whan in Perybl he is satilo have become excitad onar the faldes of immense treasures concealed in the (iraal lyraming, and to have set many workmen at limding in "nt raince. Aftar pholigions labor they elfected a forced blasime whereby le was euabled to make his way into what has sine Inon called " the kinges chamber," there to behold anly the suitary sareophagus of Cheops. Jiy the forced basinge then made visitors now penetrate to the interior of the lis ramid. He did in KiBt, near Tarsus, while marching Hathast the Byzantime emperor Therghalns.

## E. A. Grostrnor.

Man: roblertively, the whole hmman species. The seien tific study of man is sumethmes called anthropology, althongh this word has other meanges, and by limeh writers is limitiod to the stady of the physital structure of man. (hie INTmRopobogy.) By whatever term designated, the stmdy of man shombl be regarded as a branch of natural science, do be pursued umber the gridance of aceurate obser-
 and all the manifestations of his activity, in the fast as wedl as in the dreant, the whold corombateri in aterndance with ( la indmetive methats of the other natural selomes. It inchabes, thereforo hintery and archatogys, as well as the examination of the liviner repesentatives of the species; as othmeraphy, it mast holine the flowical and mental char-
 a jology it mast trace the intellectual or powhical develop Hent if the varions sulntivisions of the sumeles.

Koürugical losition of Jun.-In the rahan of organic life man is classed as a vertebrate anmmal. belonering to the alivision of the Dammalia amd the ordor of lrimates. In this

 (rndus, mader the fithe /fomo sopiens, man the intelligent. The 1 wo atatomical eharactoristies whith beyome all athers dintinguish ham from the ohber mombers if the ordar of primates are- -1 , his mont pmition, whidh cmales him to walk upm his lower mombers maly, hembin the higher, the arms and hatuls, frow for other uars: and 2 , the remarkable Acvorment of his brain, which comfers up"th him the infolactual sateriority which has linally mate him the master

 are the noarly ratual size uf his feoth, all other l'rimates


 a difinent amatomioal arrangement of the struetare of the fomt, hy whith man watke on its suln. while anthropoids
 the Inme! in "fonstion to the tingers, while in the anthro-

 that trates is of surb it characher as 10 separute man any
more widely from other families of ther f'rimates than thwo in turn are separated amane themselver. liven eroet stature













 tions were laid much earlier than that. Wi. Hunt twou to geological measinres of time in the diandsoint of the theos fion. Uf the two latest ereat protions, the Jertiary able


 time, have not brime examination. Jo the (bhaternaty tho inguiry arises, bit he apear lwfore, lurime or after the remarkable lowering of temperature whide tomk fiace abome the midlle of it. known as the dibucial bipula or the (iroat lee Aget The evidence is almont monehave that he hreal in Wratern Furope cortainly, and in America prothe, be-
 flements have loen fomblin the river gravels of fineland. France, and Spath, aswe.iated in erigimal deposition with the lames nf trypiot animals. surh as the hiphejumama-
 the prearlacial fanma of those livenhtios. From that enear logiend promel onward the reanains of haman hamdiwnte are constantly exhmmed from maty dowosts: but whon toblegists are asked to assign in year the antiguity of the ahk al strata contanine such remains their eatmate vary gratly.
 while others are not willing to assign them a greater age than the tenth of this amonnt, or exen lose (lyham, dadaillac). Omitinur these extremes and foltowine the avarag.

 abd physidal changes which have taken face sine the beposition of the arliont divencornd remains of man's induatry.
$t$ 'nity or Iturnlity of origin.-While it is gemerally contcerfor? that man is. zonionionlly, of we spories, it hy no means fohlows from this that this spemes hat hut one origin; that all its memhers are descended from ome origian pair. Epon this purstion there has bern and still is a whate diversity of opinion, "Jhose defending the view that there was but one anceatral pair are kown a monogeniots, while those teaching a pharality of origins are called fulvenino. To the latter selubl bebonerel the ehler learai\%, who assumed eight or nin* centors of appasamee for the haman race: Ibr. S. (i. Jorton, who thonght he fombl fwint wht twentrotworentor: Sutt aml GliJhlon, whorventandit a sperific diveraty of racos. followed deraciz: and ith reornt
 resented by 'popmard. Hovelacque. aml Jherve as woll a-
 of their virws turn on the ditherencoan of the variotion of
 early hivtory of the rato the lowe viability of the mix.al popalation, and the amalaes of bwer forms which are ha-


 that the differnere hetwen the varietien of tho haman species are vastly bex than between man abat the highom







 is the rule in chentilic ramomine alway- lo abot the -impler hyputhesis when it explaime the fant from then
 rope and Amorica, are inelined foravir the whanon that the human sjecits arose in some one dondits, amb spreal theme"


























 place of math was smanhere on the wathern fope of tha*









Theories of the trign of Mon- - "'ha belief formerly en-



 berame evident that surb a siow in emasintent liesther with



 the attentinn of itw dewigher. In vathe forms. therefore, the
 form into amother is alone that which at whe athotion the












































 of gears whith have elapoed, and the extemsibe dhangen in


 have beati strictly within the limits of specifu bariation:
 Hon an inforiob brain ur a lawor intelliance than is men


 the nimetemth motury : and the whend tigures on bomes
 opirit and an aprefolion of symmetry arrived very early in the hivory of cultare. On the ohar hamb. an examination of the mon andent relies of man's hathliwork wherever found foroves andusisely that he haman at the foot of the ladder of rulture, that his comblition was one of utter saragery, amd that the falan once antertained that his first state was one of high rivilization. from which he suldetpently fedl, is atterly thatess. It is very doubtfol whether he hat
 and at is almont rertain that for a mond fomer time he had

 funtrl.

The Hissemintation of the specips-Man is by mature a migratury and mot a sedentary animal. IJis romstitution mote than that wit nus other mammat rathdes hinn to bear whont injury the extremes of climate and the ereatest va-
 hong time the shates of his shbsistenter were exelusively honting and fishing. and there monpations alwats fored him to wide wambrames in sareh of his foml-hnply. We krow from the elarmeter and lawtion of tha ollest signs of his induatry that his favarito home wats alomes the shores of
 Ways of mathas, abd when ured bey amatiness of rothrns,







 seat or sompaigh by land: and the eatablindment it comat mercial relation broneht very remote tribus into eommuni"ation. flaromathe daseribes trale rontes existing at and long bufore hia time from the strats of Gibmatar to the buphrates villay, and in Nomb Amerisil shells from the
 prefod to the shones of the [be]aware and the [hatson.
('ansts of l'ariations in Bran.- 'I'hase who accept the theory of monmenism, of that all men are dearembed from one



 for of intin+

 nivorams, his crgans are materially matitied hy the ehame








 ("limate in mext in importaner, as its eharf fucturs-drought
 ar dimininh tha' athlithats of health or dispase. 'The per-




 on the emotwond and intellectand faculties and their activi-

The herat of the tropios, as well as the cond of the Aretic
 attributes. 'Jthey tetul to le ave man moner the influence of the miflity forcos of mature bobuth him, ant prevent his fomanobating himself from his merely animal life. See (1.smict:-

Arese of thermeterizution.-The ereneral rifects of such
 wher detinte atras of wide extornt. These have been called
 provinues (Batian), wr matural kingloms (Wallace). They present thromernot their length and breadth a prevailing similarity of fanmand fora extemding in time throughout most of the Quntormary furiod or lomer. In general terms they eorresomil to the reat contimental arens, but rather as these existod in marly ghatomary times than at the presrat day. Furopa, for instanme was eonnecter both with Western Asiamm Nurlhern Africa. Undoubtedly man has ako bern profombly miluencod by the same general eanses whith define these zaïlngital kingoloms. lis sepmation into varions shto-sereds, characterized by indedible differencus, arose at mone romoterporiowhen for a long time the men of the fumbive type were subjected to the contrasted combitions of these areas, and the speetes being in its carly youth, and heme more suserpathe to impressions than later, became diviled into its several races as we now know them, the dillerences being comantly strengthemed by elose intermarriage

Racial (haracteristics-We know that the edaracteristies of ritces are of grat untiguity and singular permancuce, for we fimd in the paintings on Eigytian tombs, dating three or four thonamd yars before the Christian era, the traits of the white and back races denioted as elearly as they exist to-tay. The most prominent of these characteristies is the colur of the skim. Its three chicf shades are white or whitish, yollow or alive, mad dark brown or black. Jqually important amd jersistent is the ehmacter of the hair, which is eithar straight, wave orearly, or frizzly and woolly-peentiarities which drymind upan the shape of the single hairs, whether eylimation or thattemed, the latter giving the "kink" or twist, while the formel lies straght and withont curliness. Uf the fortures the most characteristic is the nose, whinh is bromd and flattened in some paces, narrow and prominont in of hars. '] the hater are ealled leptorhinic, the former phatyrbimic. Nurh attention has been paid to the shape of the wall as an ethnic eriterion, the it must be sain with little fositive results. The chief moasure comsidereal is the promition whioh its length hears to its widh. When the locut is notally fomer it is ealled dolichocephalic. when shortur than the avemge, brachyephalic. 'J'he size and permaneme of the teeth, the proportions of the neper and lower extremition, the greater or hass obliguty of the pelvie bones, and the forsistence of fortal or infantile devel(j)ments, have also consilerable value in certain races and nations. As for statme, moneular strength, lomgevity, and corporeal symmery, these cian not be sand to be characteristies of any speriad race.
c'hassifiration of the hares of hen.- 'lhe ditherenees above roformilo have beron faken as the hase to divide the
 some writers puffring ond eriterion, some amother. The fommer of sciontifir anthrophogy, blumentach (b. 1752 ), established five races, which he mamed the ('ancasian, Nongolian, Dithopian, Malayan, und Amerioan. 'I'his is the mromalwork of many of the mondorn systems, hut it is defective in sevoral respects, espuially in apllying the term Chucasion to the white rave and lihiopian to the bateks. 'J'he maturalist ('usier sumght 10 simplify it by assuming only there rates, the white. the rellow, ame the blatli-s
 :n eqnfombling tha Amprisun with the Asiatic sarielies.
 by tha apparance of the hair, the formor distinguishing

 tho man varities, the wablly hated, sulntivitled inte the
fleece－haired and the tuft－laired，and the smomth－hatent， this agan subdivided intothestraght abd the oftrly hatend．
 the skall and the frome wit the fate uttereld the mem sablent
 narrow beanls ant projecting jann ：with narrow homls and
 with brome heats amel stratigh jans．（1there if＂．Diabor．



 owing to the extensive internixture whidy hav datern phere bet wern ranes，it is imposible to frame any whinh dens ant
 on secure gromma，however，if wo take it at junnt of la．．
 provinces athere refermat fo．and darive from them the fan－ damental variations of the Goman aporem．Promeding from these，we can ehasoify the frimeipal perephes of the carth in the following manner without notable ervor ：

## 1．Tue Elbaphas liage．

So callod from its earliest dietoric leataion in compal and Southern Eurape，and in Surthern 1 friea；portims of it also ocenpied Eastern Asia．Ite physical trate are a white or whitish color of the skin，wary or curly hatir，and a mar－ row，prominent nose．Ins two brathers are the South Med－ iterrancan and the North Moditerrabesn，which emhraec the following storks and group or perples：

A．Wouth Mediteranema liranch：I．Tha Manitir stork． This includes the ancient Lityansand Sunidimes，ant their destemdants，the modern berbers，Kabyles．Tharmes，mil re－ lated tribes of the Sahara Desert and Ithas Monmatios；the
 betwen the Gulf of Alenam the halian been：and in all probability the Copts or Anciont Eergtiams，ramenem to－ day by the rellahen．II．The stmitie stioth．＇This surms to have devcloped in Arabia，and indules the trithe of that peninsula，ancient and modrot．Colonies from it pasad
 the Amharas，the Harraris，amd the momern Alysiniams． All these spak semitio rialects．Amother carly mipration journeyed cast ward，and became the ane etersut the syrime and Aramans，the Asoyrians and Bathymans，the Íspol－ itex，Samaritans，and moflern Jews as well as the l＇hemitians and llittite of the Old Testament．
 The only reprematives of this are the mondern Rasputs． descembel from the ancient lberinns and spaking a lan－ ghage without known athinities．II．The dryan or lam－
 and the nom－semitio whites of Asia．It is now lieliowed th have ariminated in Western Europe and to lmue migrated


 wore the andiont komans and heir descemdant－（i3）The Hlly ric feomas，reprenented by the modern Altanims．（b） The Hellenic［＂oples，embracing the amont ant mabra Greeks．（6）The Lattic peoples，whore fombly the Battin
 among whom were the Coths and fambais，the Anernemad Saxons，the Danco，Xirthmen，Frankand！ambaril，Frem
 banes butch，and Enelith．（o）The slavemie porplec，in


 are the Irmonians，the frosians amblarso，the trotus of
 the $f$ lindus of ladia，with many lone imperamt members． III．The（＇ducatic perples．living in and narar the mantatm
 ghians，Kists，and Mingedian are the chat 9 gromp．

## II．The Aretafrow lis． E ．






 is represented hy the dwarf or fegmine of the Congen lanon．




 the S゙ile．
 prusebt the gurent tspen of the hawh rame






## 111．Tum Aosis lism 1.

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## IV．Jhe Jmertoin liat r：
































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b．（t．Dumain．


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 sevent small riser．＇raman and surat are the principal

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 fully $\rightarrow$ thated hoar the sunthern dure of Lake Manasua





 ing．It is bus umted ley railway with（irabala，bemo and



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Hakieri hi．simit．

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Man＇ahin：a mame eriont to the mombers of the family

 fopmath Americal．hather an their mont ohs ins wharatom a Weak bill and the minn of
 athat 1 wo－thints of their ieneth．Tha errater pertion af the manalime ame hirle of
 bhar．Yollow，whotant，bink． athl what andarine in vari－ ＂ntr comblinations．Tha rail i－balally fort and－gatat


 foral on berrime

F．A．1．1en．
























Hanar＇（inll of：a wile inlet of the lmaian（h，man be－

 and Manar，and abow raf（abliod Whans Bringe．

 if N．．．and the Pam，railwas：is mikes s．of Long Branch， 40 milos So of New lork city．Its lucation near the Athatice Gcan amb on the line of fuldur watering－ Fhame has made it a faverite summer resont．Pop．（1880） not in can＊as：（ 1890 ） 1.506 ：（ $1 \times 553$ 1，42？．

## 

 OH． Jamen whic heathtud．and herame the heal of a tribu of

 lame in luth sides of the Jomban－in the wedern side，be－ tween the tribn＇s of l－andar on the N ．and lephram on the



Manaseh：the fumbenta King of dulah；a son of lleze－

 faned for－rowal yars at balolon，hut repurnd and was restored to his king dm．Jli－later reign was marked be zatal and pancrity．The aforyphal compusition callat The frotyer of Montase he received as cammical by the therk Chamb．

Manassed hen Israel．also lese commonly known as Ma－
 in 1604．Ilis family fled during the hatuisition to Jomam， motling in Amsterdam．In 1622 Manaseh was far enomgh adramed in biblical and Tamudie studies to be ordaned rabhi．Jop was alow a geon limenio．Thomga a prolific writro low was momy a emprike．His extensibe knowledge

 ly．Manasth was very early in life canght in the menes of the f＇athalat and the＇hasistan mationem of the time．which busiod itedf with apmalytic rethoninge，indumed him arealy．In order toman livelihend he lucame a printer， and an ap the tirat hedrew printingeathlishmem in Amster－ dam．Shorty afterward he published his tirst harge work，


 tha，Masiante time was at hand and that the fera lost tribes
 turned to their natise place．porbery hat satid the s．sould the seationd to the four mare of the ghter In lomgland the daw had berel forthden tosethle sine thay had been
 his brethere permissint one more to sothe in bingland．We
























 In a short time the smath mantur of lews whol hat for war
 from Hollami．








 seg．）：Latien Wiolf，The liesellement of the dews in Ling－

 tition of the dews af lowdon to C＇romarell（Landon，1－aty）．

Manatefo or Laman＇lin：an aquatic herbivorme mam－ mal of the urder siernit and wemes Mantus or Tricheches， often termed soreow．The mblt manate of from＊ 1012
 into the tail，whind is daterned and romided at the emb，ynit． differnt from the tukers of the whate ur dugomes．Fan
 M．australis，the presence of the digita is indiental hy haik． The lwad is suall，the lips thick amb © xtomithe，the rev lithe． the ear a more opening．The okin is thiek，rather eramatar． with a few horp wrimkios marking the fuillo of mownomp and sparsely sprinkled wh hairs．＂I＇he homon are extmenely


The manate．
 the animat togather the aquat io wetation on wheh it feed and which it eate under wher．Janatere ate funm in Ameriea fromflorida to the Amazon aml in some of the



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 railway era protited ly canal commanication with the prinrpal anters of imbiry and pophation in linghad. Its

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 aible tas wh the indurtare temered in Manchestore amb it was thousht that a preal satine wombla bedected if the aty wore phaced by atherama in direet water comminication with the mat In 150, when Parliament was
 atuary of the Deme to Mancherer, the mulertaking was a trongly "pposed by Liverpullat it wa mat until 1885, amb after an expenditure of teogoon, that the act of Jarliamont consitititur the compary was passed. Its capital

 -ribed hathe Mandeater diet. The work wa legen in
 company wac "xhanted and the Mandester corpuration
 which was ingred to, hat it shomblate the virt mal eentral of the achanintration of the amal, theogh heing repesonted hy elewn members on the hard of twentyone directors. Tha camal was informally onvel for traftie on Sew Year:s lay, 1s94, and formally may $\geqslant 1$, with full state ceremonio. by queen Victoria in person. The ennal, bing muth uf its course a comalized river, is $35 \frac{2}{2}$ miles loner twier bhe width of the sue\% (hamband has a depth of Sif fert. allowing vesols of the greatest burden to sail from the Mane to Mantheter. ben a dedaiked description of its route ami the maner of its comstraction, see Surp-

From the extensive quays and wharfages at the principal 1"intoon the gatal. it hais berob described as one large doek.
 fotal water aran of lot acres, and about 5 miles of quays, necupsime atm area of 152 arres. l'p to June, 1894, the chicef develapment of the canal tratie had been through eoasting besels to aml from British purts. and with llolland, France, and Siam. Acomding to an ondicial report for the first five mand lis of 1sth the proceeds of trallice on the camal during thal lerion amonnted to ported in somong resels amounted to ?ll.915 tons: that
 numbered

I'pumbition, ate.-At the ensus of 1 1s:1 the population of Manchester was 505.343 . In 1 was the registrur-menemal estimatel it at 515, igo, and that of salfond at enB.f31: to-
 Kingden with the expertion of that al Londm. In 1881 the



 frmales) were cmplosed in the textile imbun ries, elicelly cotton. and 7.200 in thi forduction of madimery of varions


 In was the death-rate was the wry high whe of e49 per 1.11100.

History.-In the sixternth watury Mandeutir was noted for its whenes. which. simpulaty embugh, were ealled "cot-
 before the textile ure of the cotton-phant was kiown in Binghat. 'Traces of the use of cotthen weren in the textile mamifation- of Mane hester are fomil town the middle of the ervontemath century, but san span of cotcon was
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 hholer sedel with the Parliament in the grat civil war of


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 (a compact and liwely hivery uf Xan-homer fom the car-
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 ＂ror．may be simply a contract of ganamy．When，for ex－



 a partiond race＇The remalar contract of ghamery was a formal enntrat（sfipulateon）：mandate was infermal．


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 and be dtailual from the dedtur．He is procurator in his


 hat such reveration or death dess mot athert the rlam－of the mandatary arginat the mandator or his lacir for expenses incurad hefore be hatued hat the mamate was at an emb． Thu produrator it rom serm wis partially proceled by im－ parial legislation agamet the rembto of such a tednical ex－ tinetion of his rights as mandiars．

Momben Forapeas Law．－Thi haw of aymey in modern laryle is a further developmat of the linnam haw of man－



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Man'ganese f: Fr. mungunast : Ital. mangrenese prolo.




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Revied hy s. M. Janson.

















































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 lat he ['s. it is callad the lical liver of the Nouth. It is a
 atul is lialle to areasimal froliets. It is high in the prine hut has eat itsolf ow wine a chamel that toward the rim of the fall it is hardy mavigathe even for flat-
 the X. Wh, of Manithat, hat Hue greatur part of its eromed
 smallor strems, the chief ome bing the Little saskatchewan. which nuites with it mar the city of Brambon, the Mailpudle the sholl, the Birltail, ami the somis. The

 corpury. It is a moly rapid river. will ower thiry falls and raping letween the two lakes. All the watro of Manitoba thew inta Lake Wimijnar, and thence into llutson Bay and the North Jitantic.
 in lake Wiminger it hemsit of irm. The enal is a lignite, in sone spands lather than in others. It is larerly used for
 -athumbary of the powince. gold has beradisconered and two mines ari in on ration.

Shil and Iroductims.-The mil is genmally a loam on a clay bed partionarly ridh in the valleys of the rivers. In some part. it is lightior and dryer. Here and there are unprodutive alkaline suts ar sibly hills. Eisery lind of rout :and vagetahle commen to temperate elimatne srows luxuriantly. (imin of all himiz rigus well: the Manitota No. 1 hard, the hashet erahe if red Frie wheat, fanmes thrmag-


 A sith of :3 the of wild hay to the are is not masuad. There is a barioly of wihl flowere on the praitics. lent the remores of the prowine from a hotanion peint of view have not bern fully "xplatin.
 the maly ones that raman hamern the winter. The smer--parmone the dureran robin, and the meadow-lark ate the
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 －ditore af llamithos lactures．Wan Mansel was an ele－ gant writer：in philowophy he wa a follower of lamaltom．

 1sit． lavisel by W．S．Prory．




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 （1880）（1．4．5：：（15： 10 ） $13,-173$.












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## 














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Man-liald, Matat: : hat herlact of the firion Hommatm-















11. 11. $九$











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## 




























 $\because 1$ enl.
d. Il. 13.


 quit, a rhald. Whan a ilapel in the ("hurch of the linn-



 eqping squandobe, who. incensed at his marrying the dambler of Jacoun lindlini, the head of the rival schend uf


 the (huroh of ti. Juatina, buth in ladua. At this period of his tomer be went to Venioe and painted with the Bellinis,
 to J'munt, thon went to Verona, where the worked in sta. Maria degli organ, ath! painta! the nltarphece for san Zarno anil wher werts. At the invitation of the Jatiguis





 -reaned hiv famm by its wrat bataty, though he harl mo reason to forl woll satiafied by the jentin" theatment of
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 Mara della Vithoria in remembrame of the victory wer the

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IV. I. Stillyan.























 (till. 'The anatatal valuation of taxable property in 18013



















J. K. S. Al.kRt.Tr.

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A．V．Whllams Jackos．
Mannal Training：the traminer of the hand in the we


 papar．and the drafting com－ix－in the prapuation of work－

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Grigin end lowforment．－It the tilus when thel－wark






 i－t－0．te．Similarly，on the other side，there wore in every
 and whe mone or le－s tenl－work was incorphated into the carrondum of enginers and oremionally of ardintects．All suht tranins was revarled as＂：quecial＂in buth the higher and the lownaradm．This was the state of thing till ista． It is traw that in every combery the wet ednaters who《amm a rempal salue for ton－traning and for drafting， and that wandually yomer mandearm pates and esen frofenanne，nut for the jurpuse of following them，hat for the
 insly importat sop forward hat then taken in Rasia ty


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 s－atmatically，he man of mandels and drawing ame prac－







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Since 1506 Otto Solomen．the arector of the Sormat




 ished exerefe is still romand，bat the order in whith me－ ments are taken up dat the care with wheh all detaik are attonded to rember the carvitice of ideats to une somall as to te scarcely worthy of attomtion．The fact that momidual
 no mean a mecesary one for the alas methent is rntirely aptliable．It is theis evident that be 1 sibthe the was ripe for a manald－training sedanal．
The gencth methon of toxd intructinn aemed to have been fond，and there was a wromits feeling in the pablie
 points；that a fempal acepantance with the materials usal in the arts and the tonk and pronesses emplesed in in－ Whatral lif was worth the getthag．What was now netes－ sury was that mitable tomband materiahshomb be sedmed； that they should he＂hasitiod imt＂separate shop or labora－ torics：that all the eltentents of pencil．pen，and brush work ＂hichenter intothe mow clabmate drawings of construc－ tive work shouhtwo meresivelyamaged ；that thisorawing and tool－work shoul！for incorprated into a curriculum of science，mathomatice，and langhage in such a why that neither fuature shmald sem to beramodinate；and then， most difticult of all，that the commanity or individuals should be persualded to furnixh the money to establish amd maintain such a seluol．This work was undertaken simul－ tanenusly in the Massachusets lustitute of Technology and at Washington Univerity．St．Laus，in connetion with high－grade techuieal schoils．Prof．lunkle in Boston or－ ramized in $18 \pi$ ，in connection with the institne，a school for special stabents in the mechanie arts．In st．Louis， where all engineering stmdents hat lan some shop－work for sweral years，three shops wore orghized in 1sat，and an ap－ beal was made for a manal－traning school of stcondary grate．

Eneouraged by the success of summer classes of younger pupils and a chass of some twenty boys from a preparatory shonh，as whll as tey the reforts fromaprentice schools in l＇aric ant flowhere the St．Lonis Manual－traning Sehrol wayctablinded in the yring of sag．Moner for groum， building，equipment，and support was subecribed，and the schowl was opencel the following yar．Sept． 1880 ．Varions expriments hat beon made with whitlint－schools，and lem－ porary chases in Masochacto and chewhere，as well as in St．Limis．previnaly the establishment of this schow，but no propryy callen！manat－1 maning schom，in which a hroad range of shop－work and a thorongh comes in drafting were regnimb of asery $\boldsymbol{p}^{\text {mpil，and whe the wheet of the course }}$ was neithor a trati bur a profesion，but a general ciluca－ tion．had wer hard mganized tofore．
Shete ss of Momunt－training Schonls．－The st．Louis

 for the demand．＇The rexerts of the graduates are a stamb－
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include secombary instruction in connertinn with the man-






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 canse the phant－fon they embain is mone radity whbla．
 far more ly extra mourinamotin ariy ham in later erowth． Comme low－rrate manare ate ofton wowhered or rollol．in order to impore their quatity amb sombility，thand stane
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| Kinit of manure． |  | Value pert |
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 printing catathlament in 15: It. Aps. 6. 15it. He is best known for his aditims of the (hurely fathers ind of tha


 a time: Hen taok up his lathers lmanes. lut as he was



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Manx, or Manks. Languige: the whe diatect of the file
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 quite dist ina. The ar hography heame colablished through the mont important literary work in the language, the bifle tranation ol 106-85. Literary recoms from an earlier furiokl than the "ishth coptury do mot exist. The Janx
 of the langutge, wheh is giedding phe to the longlish. This shedity hat phlifhel kelly's yrammar (1859-f0) and 1her Moner Miefionary (18ti)). The Christmas carols called cumels. smar un Christmas ace, fom the ehief constiturnt of the literatures 1 an batal summary of the remmants of dans is given ty domer in the Thensactions of the Thilolegical Suchty if London (1850). Sie Cratic liavehatis. R. Thurneysex.


 Pombation about 2.006. Tha harther almits late vessels, and there is and ative tran with san Francisen, the principal experto bing silver ore and acrienltural produets. The imprames of the pham has inertimal since it has lowen unt od hy railway with the vily of colimat. 11, 11. s.







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d. J. Marsil.


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 A.








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 map of the worth. Diexarehus of Mesima in subity a
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 wher maps of priar or subsequal epoche to the sistacoth cuntury.

In medipat time tha sefontife mapping of lowems sem= to have bren suphand in limepue hy sentmental
 the central puint of the work. with all other lamds cireling aremat it, and the enean anompacsine the whole on the ontarmargin. 'The Hereforl map of the wordd, trawn on wellam ly hichard 小. Haddingham about the end of the thirteentif coutury in perhitis the best axmphe of this style of emstraction. 'Tha' epirit of true semprophy durine this pirion fomm a restine-phace for a time with the drabians. The treations on gengraphy and trawh by Abulfola, bitrisi, Leo Dfricans, Itm liatuti, and whers are still intoreting
 one adorating the compibaton of itheraries deseribing runtes and province whont reforence to wengraphe pesithons from astronmisal ohmations, while the other conlined the maps to a representation of the pasitines determined antromically. Gurbine the valtablac infomation that mirht have been athed from the itinerarios, with the: result that mathemation sengraph that hat reowed an

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The Roman had titthe mere than anpilations of itimeraripes and do not apmar at any time whate athomped the



 empire an! the whow werly katun to the laman- from









thirtonth emonty, marking an apprach of the relurn to
 in the -ixternth century. Sina than the re has been in gericons rivalry anmor civilizal mation-to improwe the methonls and whain the data for comstruel a maj, that shatl be arport and mathemationaly thes.
In the sembenth eminury seat shid. wore male in

 the preent das. Fair examples of this sty will be fombed in the nime foline of the ermat athe of dannes Bhacn, pubIfhel at Amsterdam atomat lisit, that of de Wit, also prepared in Amstordan about thirty years later: and the atlas of sumon, gemapher to the Fremell hing, publithed in three hage tolio volumes in laris between 16:00-96. The survey of China, given sut in the mame of lire du Halele, was amone the mos important seographic work pubin:hed in the raty sars of the rimbenth century. it was the Work if a number of I esuit misionarios who gained atmittance intu China about the ent of the fifternth century : thi- sreat work was comphed in 1iks. and still forms the hasis for mals of the interion of the empire. It should be memtioned, howerer, that mater chinese maps of high value rexiserl previnusly to this desuat surver, and that in both China and dapan geography and map-making had made great premes indemendely of the alvance in the sefonce by the Antiteramean and liurnum countries. The fapanAce map of the prest hayprent a still greater alvance,

The impencments in map-making from the inception of the art the thetistic representations of the momern workman are wery markel. The prater acenacy and more com-
 intlucher on the sty. warcially in the minetemth century. Ilo first majis were necesarily compined from itinarame of taverss and thourh controlled in a measure by hetomination of latitudes. were gratly in errar in longi-
 as: fate. The divenery of the mandelic mede and ins appheation to natigation toward the chase of the wetfor cenbury marken at great imprownent in the reliatibity of itin-
 in the heqiming of the sixtcenth exnury furniohed a still

 ventod, afforthis a rathy ineans for ascertaining differences in lomgitade and somatiter the remontraction of the map of the world was begun. Since thon the electrict telegraph has suphomentel the chronometer for langitudes; new metbuls and improved instrmemb have simplified astronominal whatiations: the civilized mations have completed, or have well alvanced, detaled survers of theit territories. and ohtamed the nuthes of marly all ane ssibla regions with an aceuracy so far surpasing formor ellows that cartorraphors have experienerd a winfluce in the permanency of their compilatinn that has inspired them to publish their work in more artistic form, or when hating with the detail of more limited areas to devise symbols that wombl render
 The pablatation of the mat if lance ly the Cassinis in
 all rivilizal govemmonts. In was the first extomded map constueted mon a frigommetrie hase exomplifying the principhes of scientitic map-making. and presented the merits of the system so foreldy that the emprical methods formorly in use son became itsolete.

Near the elnse of the dighteenth ecolury surveying had Decon developed moto a sedere, but it is omly within the presrat rentury the methonds of the stime have heen perfected so that thay will permit a rapid and reliable detrmanation of the featire of a rexin for carturaphe purpses. 'The "xplorer can now mintan an itinerary of his wanderings orer the band with the case the navigator can record the




 raply that there is intt aver the whold hathathe wordet an aral mandy larger than the l'. Shat has mot been ex-




eal divisions, ete, of a reghon, qenerally ambaring a large



 these two homb hy the sale mun whirh they ato drawn;
 classilication by this factor imponetibabla. It is mathifat
 knowledre, on a lare seale, will mot orloty the detail
 of comparatively little detail an lue maped with profent clearoces on a mach smather sable than other rewion* of an equal area hut murh meaterdetail. It in therefore pererred to desigmate all thome mas that are generalizations, that show only sationt fatures, as grogrophic, and thene that show the aetual formand detail intopegrathic-mematier how large the seale. A further divionn ha beym mad. to
 part of mature as phans. the this is also chloertionathe if the information depieted an the map is the atiorint there are
 that are progerly and unversally calle plams.

The gengraphic map is matly the hase far eharts illow-
 the topuraphic map for mataral history and phemomeme esperially when the elewation abowe the wa is an cormatial in the interpretation of the chanifations. a in animal and plant life. Both chatios ate bed in the ernatuetion of hyIrographie chart s. the selection having to danem men the purpuse the hetregraphe data is to sulmere.

The glole furmione the fairest information of the relation of the sporaphe frature of the earth surfore and alow if
 seate to such a small propurtion of matner that it-mso i-


 was one-millinuth gart of the dianeter of the earth. atwont
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 sary. It ditfored from the paris ghobe in that it repersented
 lustratime that forefily the compatative insignifatuce of the highest mematain.

Reliof-majs are a form of illuatrating gengrapy that have found murh ficur. Their comstrution is laberious, and they are nowesaly limited in their apdiantion and generally have their eratest value in fhyduraphy As they show the iererolaritios of the surface they are alo instructive to the otudent of retolory, and when mable in sections phaced sidn hy side, with the varins at rata mon med on their ederes th shiw the dips athel formation bebow the
 ter conception of the carthis structure than aig theo methinl.

The undulations of the carth's surface, forming mantains, hills, and wallers, have wherally bear reprembend in mape be hachures or some other shadine desolded from rays of hight falling wertitally, or in sume intamos at an
 sents the elevations in hachurs, and in ond of the timot on-
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 (.1. ruthom), whith hares with the freerding the name of
 later. but burne the lease The womb is like that of the

 (A. sperctem) ame small tres ar tall shrubs of bithe imper fance althong the former is flanted for urnament. Thaid Howno "puar later than the hatar. These are the Ithan-
 luem, a hamform amall tree, and (a) A. grendidentatum, of

 laren -hmb which ohatand its mpular name either from a
 Sow bamki of strator, or from the rounded and many-lohal lemere, whim may be dikened to thone of the graperine ; (!) the larer-leavial inalde (A. mucruphyllom) a bery hathsome trow that mover wey large: its timber hat and clacegramed, and eramty valned in orequm, this and an ash be-


 aml (11) A. cilifumicten of the Paife slope. The box-



 bunt like thon of sugar-mafh, and the syeamore majle (A)



 for carvins.

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 Roval Cadeny of Nasic, where he remained two years. In
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Maphe chear: An SMas.




 mat finmus monds and their dramatizations-Las orois










 was parthoularly suceessful, as was also the fhay Lo Ihaswerd de Bercheng.
A. L. Matsile.
 (for lokation of county, sen maj of lowa, ref. 4-h): on the Maquketar river, mal the (hi, and Ni, W. and the (hi., Mil.

 Bardman library lintitute, a natiomal hak with capital
 ha- manafintorios of hour, wombon gomals, machinery, and

Maralon Nlork [Fr. maraboat : a large stark (Leptopthise maraho or crumenifer) of Westen A frica, having a Buge hill amb an momone puch on the neek. 'This is not, as is commonly shmosel, a trop, lat is an air sare and has no combertion with the gullet. 'lhe marakom is a grod seavenger, and is raheof for its arvices. The marabou feather of commere ate the axilarios (b) and untar tail cow erts of this bind and of the East Indian aljutant ( $L$. argulet).

## F. A. H .

Maralouts [Arab, Momat, stemdfast]: a kimb of half pristly ante in the N. W, of Afriat desemulats of the Almoravide sover"igns of Spain and Moroero. They pro-

 anomblises and heride intertribal amd impertand questions. Thomph domodent apon ilms, they are very liberally sup, ported. The French in Ageria have many times felt their
 ath prays ulferd, the lamons sheik Ahtel-Kater be[negen to their number.
F. A. Gibostenor.

Maracailo, matarati-kitm: capital and primedal city and
 the proseage or strat comecting latk Maracaitm with the acean, al the mothern end of the lake; lat. 10 3a N.. Jom. if 45 W . (we map of sumh Amerita, ref. 1-c). It is lailt
 tha numbrons coromut falms aromal it: the strects are bally pasel and glomys, owing to the high houses, and the $\mathrm{b}_{\mathrm{a}}$ at is intensio, the mean beine $\mathrm{x}=\mathrm{F}$. Witer is obtainel from risterns. and is uften hat. The plasant sulswhb of latitor, to the s., contans many of the limet resideness. Naramian is the center of trate mon only for the hake towns, but of a hara purtion of the states al Faleon and Lus Anhes and if basten Colombin. The mont important article al expert is cotfer, most of which gen to the C . S. ; wher experts are taraco, hides, lywouls, eatele, coroant oil, and lymgs. 'The hartur is gand, hat as hate vesels can

 -haw-trating atann at this juint. A selllement made in

 struetion of Gibraltar, by Ge prate J'Ohomis, at the south end of the lake (thits), the ernumere of that ghate fimbling



 (14:






only separatol from it by inhats and puints of alluwiat lanil.




 bromdens, but milm from Marathin, in agan she in be






 in as shat rian and fall of the watere. 'The 小opith in gart-


 tensive bavin which has later latly lifled in with allasium. Jeaving mamerons swand and small bake. whith whmmi-


 what higher and fro ifon mataria. but the beat in abl parts of the havin is wey ereat, Suall shamaro mow fly regularly on the laks. The watore atmond in thas. 'The eritratue do the lake was dixenveral in lome he lantrige do
 Indians built on ghins in the shallow water, and fameifully

 Indian housta on piles are stilf foum in thin remina.

Herbery 11 . shti.

 a large torritary and umbley for irrigation (ow mat, of




 Porsian. This phate whe the ratital of the prownome of

 tury. 11 hond an ohservatory here with which he fixald tha
 terminations. Bup. (154.j) 13.8 .5 .

Ravined hy M. W. Harbivitov.


 Soott, and take the mane of Weatie biver (\%. efo It re-

 antues): a large ishand of the state of Dara. Prazil: on the
 that river amd the lario and sigaratod from the comanomt on the s. W. We a motwork of thames, thrmath whota


 part, of allavial formation, hat tawo of in older framenork


 hement rainn Wharnary todman, and at the time of the























Hfabsb: 13. Suita.

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 mot chtain :





































 merila.

Hrmazt 11 . -vith.




























































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 on l. A. Is obs imd Fr. Ex. Sospers.






































 disease contratod in the sewore of lanis was elosing his


 humg in the hall of the (biverntion, ind a pansion was voted
 thanianm gave way towemeral indignation amd disurnst. Ilis

 mit politigue, accomputyme se tir spicntifipue, politique, et Intre (18Sl).
F. N. Colbs:

Mar'athon (in (ir. Mapä̈́n): a plain on the coast of At-

 little hamets (Vman and Marathana) mre on its western
 B. $\because$. is ond of the mot improtant in history. Ancient ace combts uf it. however, are inexat and fonf radiclory on







 of vancs which errainly ledoner to the dillh rentary be co, and prove that the burnt hanes ane those of the $192 \times$. Ithenians. lievised by d. li. S. Stranerre.

 oga river amb the lbol. Latck, and W. Kailroal; :30 miles N.
 amb dairy mation. shiph large quantitiow butter, docese, amd live storla, and has a lares tamery and sereral mamb-





 trusted many worlis fohin both in lionme and Urbino. Maratta was aloor hamed pantar in ordinary to hanis XIV.



 painting piothres of the Madommat. llis most ingortant
 the Buptism of , /asus ('hrist, at the (ertom, whidel has been


 arehileot amiderames.
11...l. stimman







11.11.











 bach setthol in the city, comfanimath furnouthon hath.





 marbre < lat. mur mer. from (ir. mapuapos, thne. martle
 menati, smite, dah in pieces, hat afterward interpered as

 lime alone of the embmates of lime and maneria mary-


 marbles liller from ordinary limoteme and dohmite and
 subjected hav hern just sufticient to develog in them the esential endir and strmotal feator- $A$ a matter of fact
 to whirla the name limetern is sill apherd. The torn is.
 tifie precision. The mental quatition of a marhbe, then her

 mot berematol hor.





 necurring in Vermont. whre the quaryine intastry is an










 ent arre all fommitio. of a white ender amb grambar textare.
























































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 may brime wight or tor timman much.

| STITF. | Pronjuct, cub. ft. | Value. |
| :---: | :---: | :---: |
| Cathfolmat | 33.302 | 85.,0,30 |
|  | 4.0.14い |  |
| Matrelanis | 333:3, 30, | 133! 416 |
| Sow lumk | $1.1 \% 1,5 \%$ | $35.4 .11 \%$ |
|  | 315, 010.1 | +19.4615 |
| Veroliont | 1.11039.30\% | *, 160, 54, |
| - Wllutherstars | 15\%, 5\%\% | 1:1.4, ${ }^{11}$ |
| Totala | 3, 32011,213 | S3, ins, 1111 |






 anf edmath with sullow, pink, and hown; from Nasina,
 wins and hotehes of rall rell from the French Promers.



 fron Carrarab, laly, Ceumes, sue likutte Cipetimo: a
 Italy Four di Powsem: a whitish stome injecteol with weins

 lark-aray and white stome mattled innd hotahol with pink,


 firiofte: a brilliant red mathle from the Frath brymes. Irioh thect a high srate of black mathe from neme Gat-


























 uf Whts. Parim: in whte wrambia mathers mather from


 Fruthlir: a fammes atatuary mathe from M. D'entellicus,
 fulinhal surface of whirh shows mmmerable tine white




 riated limestone of at lisht whor: from Flopente, Italy: it taken its name from a fancind ex combance of the mathings

 lines. St. Butue: : wollow marlate with brown ant red
 bamiful stome of a prevaline theprod emter, with white.
 provine of Ame in the Fromeh l'ymues. Giome: a compact limestome of a prevailing velliwish colar. though often divershod with draband paphe in reins and dashes; it is
 interion downation. Statuary: any mathle of a pare-white colur and grambin texture sumen fits it for making statues: the ancints ohtand their mane warieties from Mt. I'entrelliens and the indand of faros; menly all that is now to

 (iforge P. Merkill.
Marble. Manton: jourmalist: b. at Wurrester, Mass., Nox. 16, 143., : frmbated at the Cniversity of hochester in


 frem the enthorial matarement of the pape in 1siti, he

 Mistory, for the purpose of defentine the clame of sammed J. Tilden to the provideney: and in 1-xos was etected to the presitences of the Manhatian Cluh in Now York.

Marblehead: town: Fasex eno. Mass, for location of county, ser mip of Mansalusett, yef. 1-1) ; on Massachusetts bay, and the Pastem and Mance laiboad: 3 miles E. uf Nillom. $\ddagger$ miles N. E. of Lxno. It has a deep and spacions hatmor, marly handockied, and was for many years a moted ti-hingenert, hut this industry is pratically extinct, and the principal busints is the mandature of children's shes. The town is a problar smmer reson and the yachtint conter of Now Euglimi, and has two mational hams
 weck! newspapr. Abote latl eontans aponhlic library, frec realing-rom, and an art gallery in whicly ate a mumber
 1'01. (1880) 7,467: (1540) s, 202: (1505) 7.671.

## Eidtor of "Messevger."

## Marbois: Sce Barbé-Marbors.



 is a parint oh town, climbing the sules of a hill whese top







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Marhere The Couference of: a "onternme whin took












 sif\%.




















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 sulship, whon, baving slain the leabler of the robory with










 it was fimaly captured. The town was phandemed by the liomans, anf many of fls art treasures wore rembeviel to








 Gomor to his mamory "ceavia dombatod for lam at horary.











 two lays.

Marih [from 1). F'r. mureft. metrs $>$ Min\}. F'r. mars.










 ant of W゙agrath.












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11. Тінкнн.











 $\therefore$ H. T'14 1238 m .
























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Marans: bishop of lione ; cana to that dignty in :306. and died bet. iof that yar. In is satil to have initiated



 as. Icromes.

 Cimulal mbation at Withraham . heatomy and dmberst


 ramk of modieal direcon: altur the dome of the civil war

























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Lavind ly Jame, Mratr.
























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Lievimed hy．II．IV．II abuasimes．

























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A. 1. Marsit.



























 dar Rapils, 30 milion W. S. W. uf lima 'ity. It is the emtur al a larere prairie rectum, and hav 1 wo weckly mewndares.






 beht moeliner in hor wwa parlore at latis. and hat the sup-




























 the isthmas and lat in tho watero. resulting in the summer-




 1. at Dijan, Franer, May 1.1763 : at the herinniner of the



 sadur t" Naples. lut on the way tedi into the hants of the Sustrians, who heth him primater till 17a. when he was ex-
 sulate amb empire him inlluence rapitly increased, owing to the fakor of Nafuleon, whomade him weneral secretary of
 phoved him on matay important missions. In led he was mate Inke of bassinn, and allminted Minister of Foreign - Ifairs. During (he llumdrad Dats he was aratin secretary of statr. lat on the restoratom of the bourhons was bantshed from Fixnce. Umder the drdeans monarehy he was recalled,




Haretzek, Nax: eomblotor, eomposer, amblacher: b.
 versity of Vicmat: sudied malinine for two years, and mu-


 was assiotant fo halfe in lombein in fist. Chemoved to the
 from 1st! bo 1sis. Siner then he has devoted himself to




 18:30: stuliod modicine jn Paris aml was appointed I'rofensur in Natural llivory at the (onlege de France in leblo. Di, La Marhine Imimale, restiner on many orisimal and inweninus experimontal rescarehes on the moremonts of animals, was 1 ramatand into linerlish. יnt it led I aimate Jechanism (Naw York, 1sil). Ine has also writen Ihysiologe -rpurimuntale ( 1 vols.. $18 \boxed{5} 5-8(1)$; Lat mithosle traphique



Martiori. ('aklos: fivorite of Cman Isabrila II, of spain: In. in 181s, the sill of an Italisu cook: whtaned an ofles+ in the bamish avil service thromg the intluence of ( or in the adminialdation of various fiambial assaciations, and was knewn to (Inern l-abella, who held him in high es-

 Latherl pulitian inhlumar. and in 1 N 66 , when Narvacz lecame minister. Marfori was apりointed governor of Dadrid and chiof of the royal homsohbli I lated amb sooffel at by

 dormine her posilion. In 1 Nos, when the rosolution brake ont, she was tulel from atl shles, com hy Napoleon III. I hat the dimmiswon of larfori was the only means of preserving the throme hat she rematiod faithful to her favorife, and sacritical her erown. Doring hor witw in Paris and other












I). in Nus. 109:3, atew dity after tho death of hor hathant,

 of scollanel in lbiab.
 1.今ME,








 Wiars of the lioses, which upeburl with the hathle of ct











 in the 'lower or at llimbor antil Jifo, when she was ransomed by Lantis XI. of Framme at the com of the inderand













 her shatemer. In Siweden at later paty was strmary vo






















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 of the Surth."

























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laselentur


















































S. Wr. uf lumbenx. Near it is the Italinn villa "hatpa Mar-
 1.415








 and of "ilks. The climate is eevere : in l-a the maximum temperature wat 10t. the minimm was? F , : the minfili was 10 ind hex and there were wo datwof show. Marehitan is a rery anchent city, and contabs many monummto of ant-



 ento: wa cemberted to Chrictianity in sos, while un a visit







 al Primeiphes of Mulern buideism Investigntud (1.mulul.

 Petitionse (1siti): Siome Trinmples and Thenthes of the Light
 aiutubiwraply in his Fumdemental Primeiples and his monnir in simut Trimmphs. kevised bys. M. Jatkoox.





 and hartad (irev, Latin. Itabim, Spamish, Finglish, and even Hobrew. In 1 anta she wat marriod to charles 111.


 his captivity amb was larsely int rumpontal in afowing his




 relicions pureentim, athl was horedf amened of heres.





























Honry of Nibarre afterward llany It., only a week hefore
 -hermaing at comet till hise. when sha rejobed him at Nime. la licmionstors of morals of rivaled ber hashand,



 of sehohats and men of hetters. I. Mar. 20. 1615, the last legitmate Yalos. She left hittres and jlementes of con-
 were also published by hamme in lase. A. (i. ('axfeld.



 appuintel pator of Trinity chareh. and whore he dial May :3. 1846. One of his prinejpal works is his cirundehrender cheistlichen mogmethe, of whith the first edition (Berlin, $1 \times 1: 0$ is hased on the philusengly of shedling, the second (182i) on that of Iterel. The attemp to merijate a full hameny hetween the data of semace and the doetrines of Chrintimity hy raising luht into a higher, ibeal, sperulative share the sphere of truth, is here nulertaken with great ingenuity. but the enthasiam with which the book was reeveel has wated, and the standpoint from which Darheineke wrote his phitosohncal work, imbl wen his scmons, has been given ul asharrin. His fieschichte der deutschen Reformathon (t wols.. 1816-3-4) is of lasting worth.

Revined by S. M. Jackson.
Maria Clorisli'ua: Queen of sman : b. at Naples, Italv, Apr. DT. 1sem; : almehter of Francis I., King of the 'lwo Siciles: was marricl. Lece. 11. 189. to Ferdinand VII. King of Sain, his fourth wife. On Mar. 2: 1830 , when the guent Wedared hetwid prognt, the king abolished the salic law of inheritance, tor which the Bombons had conformed, and arcording to which only the mate members of the fimily could inherit the throne and reintreninced, hy a pragmatic sanction, the old Castilan law, accoring to which the erown could be inherited also by fimales. Gin Oct. 10, 1, 50. the quecol bore
 mediately the eourt and the comery heame divided into two parties, the Corlists and the Christinos, the former
 to the throne acerding to the salic law, and supported by the Cltramoname derey and the abolntists-the latter
 daughtor aumoding to the pragmatio sanetion, anal supproted hy the librals. On the death of the ling (s.pt. 89, 153:3) the 1 wo partios tonk up arms, and a civil war began which lastal till 1840 devastating the comotry and demoralizing the peobe. Mcanwhile Daria Christima, who was abpuinted rugent during the mimmity of labella 11 . soon host the p"pularity she had gimal by her allame with the limerals. She was intrinsically imdifferent in political mat-
 tional. Har sumersioney to the puliey of Lonis Philippe flaw her in opmation to the proressists or radeals, who foum? math smpalhy in burlaml : amd her persomal rela-

 bokn of lianzares. ow whe whe wat jublidely mariad



 hand luen deelared of are in mis. Mariat contimued to medde winh the govermmont, until the wat mar mote expelled in
 hand, :mal returnal in wist to stam, whence, loy the revolu-




Lu-visell ly C. K. Anms.
Mariater. P.: movelist ; h. in hemmark in 1807 . In 1s: he phblished an monymons tale, and in the following


 whith. Fre Hollos: Pam antike Portsllinger (From



with immediate sureess，and was transated into nereral han－ guages．It was followed by thet sidste Latmer，og ambre



 other Antipue Tancs，14：1）：and bit Bryllup i Ritatomberne （A Marriage in the Catacombes 1890）．

1）．K．1homot．
 a daughter of the Arehlube fremeron ．In－ria；Wan mar
 a divere from his wife，the bimpren derndine，for the


 circumstanes were marked by atility and dignity，she was net allowal to follow her busband when ha alidiatal
 lemm，near Viema，whore she remainod alat durine the
 and Guastala werigiven to her．Silur the doath of Si－

 by Imbert de Saint－Amand，transiated hy Jhomas satgonat perry（Now lopk，18：0－611）



 lecturar ondivinity in Sidily and in laric lient－it：setthat at Toldodo hat：wrote a treatice．De Reqget Regis Instetution （Toleqha．Disen）．which was harned by the hampan in laris




hervised lys．M．Ing an．
Marianna：a town of the state of Minats Marans，Brazil

 It was fommed in 1698 by ghdminors，and durine the ＂ightath century was on of the richert miniog－towns of
 then is important maly an heing the seat uf the Bishelp of Minas．Pope ahout s．boo．
$11.11 . \therefore$
Marianna：vilame（incerpurated in 1s：a）：sapital of
 ref．3－1：）；on lidnenille riber at the hem of mavigation． and on the St．1．，Iron Mt．and s．Hailway：4．）mike W．of Memphis．It is in a corn and cotton growing rexion；ix an important cuttum－hipping pint ；and has efuhbe innd：

 bimthr of＂lybex．

## Mariame Jshands：Rep Lamones．

Maria There＇sa：Arebduchese of Austrin，Gumen of Hangary and bohornia，gnd E：mprome of（i，rmany：ho in





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 Oesterrech muter Jaria Theresa（l－bit）．











Y． 11.11

## Mariwpa Indians：sum Sovas lams．




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 ＊ille lo the Home＇irele：1－：













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 empletely wernlathed and rained by' them. Tha' badulume of her hoshand and the deoperate state of atfaif




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 but her character deseloged with the stuation and amber

 after a lone imprianment before tho livelumary tri-

 mate every hat in the rem tramhor and durime the two
 soldiers and under the exerotions of a furime mots, she



 Thomas armant lery (New Surk. 1*90-91).

Ravised by (: K. Ahas.
Marif de Medias: (bene of Frame: b, at lomene,
 (amy: was marion [be 16. 16m, to Honry W゙., King of
 benis Xill, She was hatifil, parsimate, ambitions, hat singharly low and mean: Honry alwass avided her, and She waz bet crowned matif thas day In fore his dassasimathon

 spirary of do Lames (Apr, 1t, Mifor, after which the was






 erat yars in biskanl and the xopherlamde and died at




 Garem formation and the grated elevation is ofat teet. Tha elimate is dry, and there are few strams. The princi-
























 111.27.

Marienwerder, virader: eity of We! Prusiat 4omiles
 is a hamdone city, whathat time buldinge, among whith is the cathet lal from the fomer enth century and the castle built by the kuighte of the Jeatomice onder in the thirternth centary. It has many thmophent and edncatinal institutions, and some mamfatures. Prop (18t0) 8.50.2.

 in the reent literary movement ins sublern bramer, and a
 Provental schat. He is ehamedtor of the simete of Ferli-
 proper. He is also dreetin of the hate felibremne, the larisan urgan of the schang. He has fublished three vol-

 imurests of his frimuls. Among thes mar be mentioned

 thomend (1:54): Discours suer la jewnesse procengale (1884):
 ticularly La terre provengale (1s!ö).
A. R. Marsit.

Mariclelia: city (fombled in $1 \times 33$ ): eapital of Cobb con, Grat (for lecation of comats, sec mat of (ieorgia, ref. 2-(i); on the Marietta and N. (ian and the W. and the Athantic railways: :0 mile N. of Alanta. It is in an arpeultural and stock-raingergion, ant has sereral marthemills, flour and paper mills, kinting and chair factories, fron-foumery,

 timated, 3,500.
bidtor of " Jucrsal."
Marictta: pity (sthed in 12x*) ; capial of Washington en. O. (for location of comby, wer map of Ohio, ref. 7-11); on the ohaw river, at the mentlo of the Muskingm, and on the ball, and $0.5 . W$. the cleve and lariota, the Toledo and O. Cont. Ext., and the Zaners and 0 . railways 80 miles $\therefore$ F. of Zammille, 115 S . Fo of columbus, 155 S . of Cleve land. It is in the eveat nil region of Ohio and West Virginaia and within a few miles ur ried coad and iron depesits; is funcoipaly folatid it manfacturimg and river commeree ; and has thoir. Maninge and saw mills, carriage, tub, hucket, and chair factorirs; fondries and machine-shops: tameriss brewitis, catrohope , il-works, boat-yard, and tond-work. The eity is the seat of Marietta College. There are ? mational hanks with combinat capital of se00,000, a private trank, and 3 wedk! and? other periodicals. 'I'lae



EDiter of "Reghter."
Mariotia : moneh: Lamaster co., Pa. (for beation of
 hamai ywer and the l'min. Rablomd: an miles E of Harrisbures, sl mike W. of lhilatelpha. It has irom-furnaces, roling-mill. fondry and machine-shop, saw and phaine mills, hallow-ware and dameling works, and arriculturalimplement factory: is the bastern marked for the timber amblunthe hroght down the river, and contains a natimat bank with capital of s.am, 1000 , a priate bank, a lyeemon of hatural histury (founded in isis) wih lihrary and two

 eatol whore the first sultement of the "lerritury northwest of the river Ohio" wat mate. Apr. F, Bise. The cotlege
 many erabuatis of fala and 1 larvarl. It was opened for

 Whainom, under the mame harieta (onlene. In its course of st aty and wermat arrangenems the rolleqe has athered
 of welchatial ami if stabembel, having a self-perpetu-
 alliliat inns are rathor with the Comgragational and Drably-





 is welf littel lor its work. The mamine of volumes in the college am socioty libmeries is ahout 00,000 . Ithe library is
specially rich in works of Americhn diatory athl rif the early





















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Mar"iugld: a puphlar mane for varions pellow-lameret



 officinalis), indigemons ta the whth of lintulat has lunts



## C'Al.tha.


 Aceonits of her carly life vary. but for sume rewant the was suld into slabery amene the Xaya lmatas of Jatacen; in


 she was of ervat awntance for (ortan an minterprotar. Va-


 tin. became jrominent in Jator hintory In 1524 sa* was marriad tor Juan Jaramillo, a Gpabion captain, whas subor quently Jelal Jucrative oblices in Dexien: Parina wa-liwine there is late as lisio, but the blate of tor death is unkumat. 1]. [1. simtur.










Marine filue: Bece (ilce:

 or ather dlesslare at -e:t.






































 Parlialmath un lobly.

























































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 A water fulley is ant that hame mothe face of it the atssured has mo internat in the forperty. This chace of insur-



 gal. In many -atns of the ${ }^{\top}$. S. similar euactments exist.
 est." hat remvery fur las ablat surh polides is mot ancourared by the eondta. It is impertant fobloreve that an infreat in the fropurty insured is an imdiepemable comdition in gall marine jucurntueds.

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 And assurar.


 *(9)





















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by any of those perils the voyame ann not the performed, or the property is sodamatiol an to bu of litter salum.

 are jurishable in their wsen mature. It also mames the per


 writing.

Duration of the Rixh.-lasuranma on a ship hegins at the furt from which insured, and wntimms matil momed at

 fowine the lowline of it in the versel. and continues imtil the diacharene of it at the fort of deatimations. If it is the ceratwhe of the prort to conncey foonds in lightors from the ship to the shore, they are insured untils $s$ haded. Insuramee on frofyht, i. e. carnings of the ship for transporting the cargo. hurins and terminates simmbamonsly with the insurance on the cargo. When ats insuranee is mate on chartered

 althuyh she may te demined to at dintant fort for cargo.

Marine Lnderuriting in the L'uited sifates.-There is no evidence that marine insurabo was praticed to any extent
 establistmment of the (ionernmment of the L.s. There were a few imbividand malerwoters, and associations were also furmed for umderwritiner ; but it was not until 17:3 that the
 with the title hasurance ("umpany of North America. 'Jhe first company chartered hy the State of New Sork was the Sow Vork limarame lotajany in 17!38, with a eapital of sinoo,000. During the nimementh century twenty-six comdanies have bed chatered by that state of which one only eontimus in active busines; the athers have failed or liguidated. T'bere are also in New Vork two underwriting assoejations conducted by athorners for the benetit of saberib) "rs, othe of which is namen Cnited states Loyd's.

Mutual Companies.-A company chartered in New Vork in $1 \times 34$ to doinsurabee on a mutual hasis met with unexampled success at first, and drow a harge jurt of the business from the stock companies. 'The profits of the latore compar moss anconed to their stockhodders, while in this new method the protite revorted to the dealtre, thus giving them their insmrance at cost. The hatter syom hecame at one populat. Many of tha stock (oompanits lipuidated in 18t?. and reoreranized on the mutuaj phan. Amoner the number was the Ithanic, now known as the Athantie Mutual, a company that pesents an interesting phase in marine underwriting. tooth in respect to the system by which it is characterized and the develoment of its busimess. Ameriean companies in the seaports of the $L^{\circ}$. S. have pasid themerh the same experionere as hose in 大iw York, and the busimess of marime insuramee is mow hagely dume through the agencies of British compranies.

Probably on me uther commoreinl sulijeet has there heen so maeh witten as on matine insumate. The subjoined list wives some of the more impurtant work on the subject : Phillijes, A Treatise on the Lata of Imentemee: Amould, A Trumise on the Lau of Insurunce and Aterage: Benecke, A Tratise on the Irinciples ot Indemnity in Merine Insurance: Finerigon, A Pratise "m Inswonce, iranslated from the Fromeh, with mutes: Duer, Thew Letw and Practice of Merian Insurance: I'arsuns, I Truthise on the Late of
 Merine lustramer in firent britam: Park, it system of the latio of Jharine Imarance.
A. A. Maves.

Marine 0 : fown in the proximeo of latermos, sicily : in a

 combtry whath mar Marimen ate whe very fime frescoes of




## Marineres (onnpass: Sere Compass.

Marimes [from lat, morinms. frotaning to the sent, man-

 light uf infontry servine allent, marimes ate, ats a distinct




 marimers who sersed in the Alent. The nathere of rpilatat
 the cere as the momber of marime to the erew of an manern

 reat of men-at-arme mill surving athat, them armor and

 is, carls, or stardy follows. who folught in twate. Later they




 pronted "eapatin of all the men-at-armand anders of the flett." He was in fact. commandant of marimes.

 The endixat whlanment of mariman mater their froment

 ogy. vol. i., p, it) in the battle with von Trenife off Patt
 tated for serviee athon, and comb to be called merime seddiers, or murints. (firmes Militury Anthquitios of the English Irmy.1 For end conhuet in batle. but more partimarly for somand logaty durime the great mutinis in the thect at the Nore and atsplamat, they wore in semerat

 the Royal Marine Anthery mad the Royal Marime Lanht Infantry, emprinitg 1 that mem. They ate ohliged to merve for formen ware, and then may rewtage for etwen yars. It the expiration of the twentymen sare arome they are

 at Chatham. Jrytumath, and Plymonth.

 tattations. We the styded "tiret and semblhatalions of mat
 the revonstruetion of the bave, the Marine (onge was arain
 ing and urganizing a marine corps." by this ant the Marine Corps is at ans time liahle to thothey in the fore and gat-












 cies in the fower erabo of the line amb enginerer ang of the navy, and of the Jorime corfos. in the onder of anerit. as
 the asompment to be matio lay the sexeretary of the Nas?
 on the satme fomting an tor rank, pay, and allonancusan - 1 milargrades in the infantry taki prowhene of hke rank in the volunterre and militia; may fur ansulateal wath utherer of the army on comers martial, the s-mior tor fonde: are






 in hatte ur extmorthars lownom, and roter at tho ane of
























 of the natreverpt when tetanthed for arss wo wh the army




 L. ㄷ. Collum, L'.-. M. 1

- 13. 1.10.








 rity with Manminer. Mich., on the mher - Mif of ther river.









Bintor of " Sumth otar.



 Woary of his gemblurift hatit. hre turned han wat of ha

































to deal with the Jow of Vimus and Alonis, the poem
 matter. Vinth ant himeraphical information fore examples





1. If. Мавкb.







 the ereat omini family, aftep which it was for at hene time
 lade. There is more manafacturing intustry in this phe than is 18 mal in this part ot Italy. Marino was the hirth-

 singer: 1s, at Cogliari, sambia, Det. 1s. 1s10: servel for seme time in the sambian army, from which herement,

 tion, and formang an atmiraht demer vied, which he imghosen hy two years atuly in Paric. ho acopted an en-
 name of Marias in Foblate le Demble. He mon berome the acknowloded Lending temme, ant was a ereat faworite in Fagland and on the Cominent. He marred (iadia (irisi,
 with dirio. he fulflled at suctosful opratio engagement in
 stare in lemem. hut in 1sid appern in concert in the [. S. with pan sucenco, his wien havinglost its beauty. 1). in Rame Dee. 11, 15x.

Mariolatry firm (ir. Mapla, Mary + גatpe\{a, priestly servere, warshipl: the worlif of Mary, the mother of destis. This hat no fummation whaterer in the New Jestamont. hat dewhned naturally as desus beane the Church
 whale haman family. The hare of the Chureh foum in the mather of deans the temarnese and sympat the the intelleet had doprived it of whon it formatatid its coda and athstray therims of the fremon of deas from the iden of Christ ate the conl- Man. Gurne the elone of the fourth contury there had beet grobuced a cemsideratile amount of apurry phat and lequbtry deseritions intended to suphement the meager information which the Ginspls give emeerning the mother of Josus. Jrom the Nesturian erntroversy this whate meswhent rewised a dowded impetus. The ghestion arose and was butly diecused whether Jary shonli be styma "mother of fint," or only "mother of "hintat." Nes.
 combemand ley the Symu of Lifhesus (thit and the Fathers
 torohlights and ine the shat throngh the illaminal aty the their reanetive




 light candlo and harn incone ith front of them. Number-


 The monern Roman 'harh, matro the impetas of Pins

 to har the humas, frast, ame atfeetion whin righty telong to her sumathos. Simat.

Revined ly s. M. Ambisos.









Marion: city: capital of Williamsan mo.. Ill. (for lecea

 It is in an agrieulture and onal recion, has women and cot-




Vimtor of "Leader,"

Marion: city: capial of trant co., Mhi. (for location of munty, see maju if ludiana, ref. $f \mathfrak{F}^{\circ}$ ): on the Misissinewa river, am the fleve. ('in., "hi. sml st. lo. the l'itts., ('in, Chi, amel st. I., and the Thatedo, St. La and Kan. (ity rait-
 banamis. It is an agricultural. frut-growing, and maturalgas region: has id manfacturng establishments. incloding 10 ghas-factories, malleable-imn worls, and thour and rolling mills: is the seat of at mational soldiers' home which cont user sl, 000,0t0: and has a normal college, high-school lmidine which cost 800.000 , clectric street-ralway, and a monthly: daily, and : werkly periodioals. Pop, (1880)

Marion: dity; eapital of lime ch, Ja, (for tocation of county, see maly of lowa, refo 4-3): (b) the ('hi., Mil. and St.
 of Dutheque. It has impurtant manufactures, ineloding fomdry prolucts, fowr, moriages, furniture, and agriculLural implements and $\ddot{\sim}$ bublic parks and ? weekly news-

Marion: city ; capital of Marion en, Kan, (for lowation of contry are map of kimsas. ref. 6-(i) ; on the fottonwoon river, and the Chi., Rock 1s, and Pace and the Atch., Thon.
 arrioultural, frait-growing, and stock-raising region; contams 4 churches. ${ }^{\circ}$ pmblic shools, several public parks, and valnable mineral prines ; and has an iron-foundry, Hourmills, and $\because$ weekly newsplers, Pop. (1880) s5: (1890) 2,04: ; (184.2) 2.027.

Emetr of "Recomb.
Marion: "ity: capitat Marion co. O. (for location of county, see map of Ohio, ref. 4-E): on the (leve., Cim., Chi. and Sit. J., the Col., Hock. Yai. and Toledo, the Col., Sandusky and Jork. Val., and the Erie railware: 40 miles N. of Cobumbus. It is in an agricultural region; has large steamfowel works. mallerthle-iron works, thresher and engine works. track-sulky and mattress factories and lime-kilns; and contahs a normal schorl, business college. State banks with combineal capital of sen,000, a banking company with capital of soo.000. and a private bank. and ? daily, a semiweykly, and 3 weekly new: papurs. Pop. (18s0) 3.899; (1830) $8.32 \%$. Eintor of "Enening star."
Marion : tomn: capital of Marion co. S. C. (for location of countr. see maj, of South (arolina, ref. $5-(\mathbf{i})$; on the Wilmington. Ch. and Aurnsta lailroad; Ni miles W. of Wilmington, N. C., 120 miles F , by N. of Columbia. The (ireat bector river, navigable for steambonts, is s miles distant. The town is in a cotton-rwining region, and has two weekly new:papers. Pol. (1580) sot : (1560) 1,640 .
Marion: fown : eapital of smyth co., Va. (for location of county, see map of Virginia, ref. ©-() ; on the Norfolk and Western linilroad: 160 miles $W$. of Lynehburg. It is in an agraburnal, mining, and atheraising region; has Hourmills, iron-foundry and arpichltura-implement work: and contains Mintom Femata Colloge, a high sehool, and two


Marion, Fravis: shlier: h, at Whyme, near George-
 limited edueation; went to sen at the age of sixteen, and burdy esapual with his life from a vessel that foumdered on a voguge to the West ludins. He whlantereal in the expedition of (ens. Lettleton igatinst the Cherokees (1059), amd was a captain in Hidalden's recimont in 1861. He served with humer in the Rewhatimary war, takiner part in the dofonse of Fort Moultrie, in the sieqe of samanath, and in the Adfone of ('hateston, but his most noteworthy achievements helong to the last two years of the ward during which he mantaimed a hatasing fartisan warfate ayainst the Britioh. He rearaited a few companes from amont his notishtors. Whan we abliged to contunt thomselves with the rindest arms and equipments. and joined dom. Gates in North Carnlima, but this reenforement mot anly with ridirale on aremmet of its ragend comdition. Marion was returnine from a bootless ermon arane the britich hoats on the mighluring rivers ot the time liater was defeated at

Camden（Augnct），and falling swddonly upan the briti－h








 the army of firmone Dfter the＂vanotation of tharlanton











 known buth to the（imeotis and Romams（fir．àjáduata veupó－
 since the Middle Das umber the matme of fontencimi，abml




 of Jonson＇s Marthomene Fiter，son med frone the lanality

 Spechoor，hut for a century and a half thereafler were rate－











 true in expertanent with game not tom near their jwint of


 the dimanation of voluma Ineine naro than fropertionall th the inerease of presobre．see（ids and flatr．V．l．N．



 Hant－all natis．．区 ul the
 produritar ophrimedy bafy．
 harero．－howy，trrminal thoss


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 Pulehollues uf lialifur－
 1．gummisumit u！the．law＇ky





> HanLe- I: IBrant.

 of California；yokuts sismblix－Imbath ur lmband an the mat
































 －bired 1 rathelo．





















## 

Narilime Jroville（in lawesian．Promerahenes whast


























plan- eawhent the - mamm are hot, and the rainfall suf-
 are being enale hy the kianatn dowerament to fill it wht



 'The eapmal was at lirat Xikelimak, at tha month of the
 of the lenri. latere the suthern part of the fors ine wat

 now strmisly fortitiend.

Макк W. Habниято.
Maritza |anc. Ifomes, famme in matheloryl: frimepal





 the fowlims of his migin hat han waremated. I career was "poned tob him toy the lent that an the sige of Numan-

 patars in the alliee of a tritume of the pesple in which his

 marremer folia, a haman baty of pominent family, the

 lomr-dratw-out war asamat Insurthat Atrica. Here he speatily beenom kinan as and chiont oflowe and won the sympathy of his sohbirs 10 an manal oxtent, thas paving the way to proferment in uthere. In the year thi he was



 guptha. It the time nf Barins extum from difica, Italy was theathond with invasom from the noth by vast hordes
 northern fromer, and han afotal many Roman armies that hat hata som inamat thom. In expertation of a contest with them Marins wan wered emsul for the hard time in tha b. ., and again in 10. In this year the hartarians returaine from sian whe phamine to invade Italy. Ont

 meantime han entared Northern Italy he the castam dediles of the Aps, and in the following sear they. too, were attacked and worwheminesy dofeated at Veredli, Marius rotmond tor Rome in trimmith was recived with umpro-


 him, and andordingly we hat mothing of him lim a number of years. At the rim of the sumal war in scis.a. he sar-
 for himilf the command of the war agamat Mithilates. whinla the shate had alrady intrusted to sulla. 'l'he hat-
 to fle for sufty, firat to Minturna whe a fratlase thert was made to kill him and then to Afrata. Mantime sula




























 the mamber af twonty-risht were given an the Thertre latien



 the hest reprembation of frowh comeds. His strenght is
 the and there are an st mande indivahalizen eharacters or
 followend, in its hirth, growilh, if transermation, with the

 of semtment in nionly (homen and refinel phase is so conphemons, his mark that it has sinue bean called marivandage. Ther same gualitins are fomm in his later mosels, bath unfinishod, hat be de 1/triune (1:31-41) and Lee Paysan parion ( 1 :39-36), which have larn of intluence far the burlinh mosel. His Giaros complites were puth-
 choisi, are in the collhertimant dianime and bidot. If. (i.

A. (i. Casheld

Mar'joram [3. Eng. mationta, from one of the liom.



 The eonmon marjoran ( 1 ). rulgure) hat hend naturalized in the L. S. from Eurnce Its leaves are used in cookery, and its casential oil is amployed in limiments. The sweet marjormo of the gardens, $\theta$. hatorenu ot the suth of Fiurope and the levant, is much phasanter in obler and taste than 1) molyotro and is tmployed in garnithing moats and seasoning sall
Marjoribanks, maarchlănks. Enwarn, Jord Tweedmonth: tatesman: b. in Lomdon, Englam, July 8, 1849. He was edheated at oxford, and was alled to the bar in 1sit. He was liberal memher of larliament for BerwickAhite in issil: mosed the aldress in unswer to the speech from the throne in 10s: herathe secomb whip of the Liberal
 Mr. Glahtomes administration in tsis. H1" berame Lord Tweedmath on the dath of his father Marela 4 , ts: 4.

Mark $\mid=$ (icrm. monk $<$ II. II, Cicrm. mare, marle, half-


 anI akn in stain anil Porthral. to signify a half-pond
 in many of thene states to desiquate the unit of aceunt in their mondary symms. 'Thase montary mits were originatly identical with the unit of weisht, hit bey the contimal degradation and debacment of the coinage came in the lapmo of time to reprobl very infertior and, in dillirent
 of Hambrer bemme worth no more han 1s. 2\}d. sterling $=$


 (iorman states it has hoen the usige during the past century or 1 wa to fix the stambarl of the -ilver cuns in atual use lig dowlating what mathel of such coins shall be struck from one matk by waisht of pare silver, the stathard mark


 of time silwre, ame 1t thaters of I'masia from one such Cologra matk.
Ginte the fumation of the (ierman empire the term "mank" has hate applich to the stunhare mais of the impromb mondary artom, the watue being tixed thy the enet-



\$0.23*21:3 of the money of the U. A. Is Hiw standard if




## 



 apostolate and the minitry-namely, that of equate list in missiomary of the weond urder, subardmate to the atantion


 (Acts xii. 1?). His I-ratlitic mane was Johne hat the the
 Roman surnanm of Jark. A smonlar tralithat prome ved
 and, having onee tonbracol christanity, he wit off uble


 the Levite. He was ne dembern the faith by se Jex
 calls him his son in the same giritial s.me of the wird in which l'and gives thi mane to Titus and T'imothy (1 Pet. va
 in the other (cmoplc, of a young math whe ohorsing what
 stables. leariner buthen him the Joneth ruln in which he was wrapped. "The fart that the cranediot remerted thi incident, which is of abpartienlar interes, beals naturally to the conclu-inth that this Yomes man was Mark himerlf, who. living in the vicinity, haral the nom and would we what Was ening on. Mark apmare for the firat the in the "wan-

 among the paranc lo the islame of cyru- and the adjanent parts "f Asia Mimer. On the ir arrival in the wide repans of the Taurus Mantaino Mark loft the two misomarios

 fused to hat whim for a rompabiont thourh barmatas.s. whom
 it. The two minsomarim then mparated, J'and takines silan
 of Mark, Whild Bamabas, together with Mark. Went to the What of cypros, and thonce tor wher chatrien whelo are


 Pand remembers him to the Cohomans and Philemon (col. is, 10; Phatom. : th. and towarl! the close uf his life latul called him a semol time to may with him ats a cuatloutor "proftable for the miniary" (es Tim. ir. If. Nowerthlews ter. A tradition, abmet manimess, firsignatos him is tho
 It is difliontt, howerer. to aseertain at what time Math thas aconpaniod Peter. In 6 , when he wa- in linme with
 limed in the Epistlow written during the Ramoth aptivity

 to consilar the city of Jinhegon, whene leater wrate bix



 why should Mark separate from hon umb ato fol lonno fob stay with Pand if after, the remaine only the san da and the hirt hatf of the fot the whate if Mark wath leper.









 of his (furn mil.














 Werstand that it wat hither Mark what ishon in tif lere.er









 his athe the thre ather dionlol.

 reppet tw the following throw pathes: (1) That at was rame 1"well hy the (wanceli-t Mark: (2) that Mark wrute it from
 Tharehes which he bi-sterl turether with han: (3) that it
 of that chpital. With reveret to the firef puint it follone from the tithe. "acembing to Mark," Which ittle the whet






 all that he remembrend if the words and dom of (hrot.


 the demand of the rament, and mit firt the jourpone if
 Thum Nark has made mo fant in wrotime duwn the fare











 T'o hamas wh the last : (1) Is it mot evident that the wat















 the number ut the fambis! It is an- intarathe that

















 ＇l＇hrourhent the whole narmatio ha strive at ond ato onty





 We think when resuline the scone ho ween Jesu－itht his dis－


 that be of trat．but the thine that he of men＂：hut les omits the homoriner wome which prowedol immediatuly
 this rock i will builal my（＂hued＂－two traits which are
 such at manare uf harsatime mast vither proced from Petar himself or from a derdited anemy of his：the hatter suppor





 sketeh of the hisory of desus，wemetly such at it is desel－

 （i）＂J＂he mathorshipe of Mark might be inferred trom the two
 of une frospel is su abonhtely ditforent from that of the
 the statembato belanie ion leter the marrative mont have
 Nark his mom．thm dewerating him as his spiritmal heir，

 tween thin work and thon of Matthow and Lake has been
 whish we have eiven，a if he lat drawn his narration frem them．＂The fronhmen and rifgimatity of hiv work torbid us to suppous that law hat unal than of the two others：but onght mot tha problown to lar whent in quito a different

 mato and then in tireok，and on wownm of its parity and




 tworn Jathaw amb Hark arime．Hatthow time wran


 membrames．Than the dumber fat whioh we have imble


 tise of the furmer．K゙lestarmanm－rghmen lhat Mark wrate with the work of Jatherw befine hime hat uldet









 tion of the remelor on $1 h_{\text {te }}$ imburemace of the indieation ＂Jap him that rembith umdoratand＂（t小，＂l＂his remark，

 uf the dianmare belonese th the bime lof fore the dearaction
 － knewn to thome for whon the（iongel was devtined，and that the comanmition of the work tha helomer in the time of the



 tha traditiomal formination of the（ionpol？Hid Mark die before fininhine the work．or has lae lam lenf of his manu－ soript been last latc amother eece siastion writer finished the narrative？Surely Jatre comld mot son］with the word rap．with whiclo the eighth rar－lerminates．Furthermore． an anmed hat promised an apmrition of onsus and the an－ thor mons haw had the intentan of narming it．Is it not possibe that it was tha perverotion of Nero during the so－ journ of l＇eter at liome in dit which canset the interruption of the work of $\lambda$ ank，and that an ineomplete copy remaned at lomet．Whenere the manuserijts having no conelasion， while the（ony which Hark carriod along with him was com－ Heted afterward，amil hence the form which has finally pre－ valed in the Chured？ds to the phan of the work，which Iapias found inconsistemt with the historical order，it seems very natural，on the entrary，fom mur point of view．The
 Cabermam，shows us hew this activity expands in every diredion through exempions mare abl more prodonged， thoum at the end of eath exursion the Lom alwass re－ thrms to（：upermam，＊llis final cherrture for Jermatem thas appents as his last missionary bovaer．The Gosped fi Mark is the most pieturesque delineation of the min－ istry of Jesus in its otlice of evangelization；and the first and the last words of the work＂nofirm this view：＂l＇he begimanar of the Goskel of Jesus christ，the son of Got＂ （i．1）：＂Ind they went forth，and jreached every where，the Lond warkine with them，aml contirming the word with signs following＂（xvi．？O）＇Thus from heaven Jesus still
 Which lee filled himsilf su fathfully during his ministry on earth．See（imbet．The＂rigin of the Four（ionpels，in his Stulies on the leur Jistament，transhated into linglish， published in Lamdom．1sig．

FREDERRIC GODET．

## Mark Diibell ：Se lỡREN，

Market：the meting together of people for the purpose of hoving amd sellime commodities：serombarily，the phace Wheresuch moeting is heln，and in a mone general sense the remion or lacality where anything is or may be bought or suld．＂Ther med of axembling in order to exclanare eom－ monlitias arose as som as man emered from the savage state－that is，as soon as the division of habor trom to di－ versify ponduction．Wurimer the Midille Ages the markets and fains（ $q, \frac{1}{}$ ）atforted the only means for the exthange of groms，the retail shap heing an institution of moxern grewth．The market．as well ats the fair．from whide it is dindaraished by its loeal and mone formanent character， was subje to the dompliented reendative system that char－ Woterized the economic pmling of mediavial towns，The prineiple of jaxtem pretimm，ur fair price－that the state thomld fix the priee in the interes of the indivilual－ex－ prosed itadf in mumerous restriotions，such as the laws aramat forestalline or bminer gooms on their way to market with a viow to enhanoing their prose mat against the kin－ drad blan－as of rograting and enerossing．which were noth－ ins more than the optinary apertions of rotail trade．These and uther restrants on trade have heet swert away with the rise of the mantern eomoterejal spirit and the doetrone of laissmz forto．Wirh the inereane of trate，fors，the market
 as the sentered shap of retal deabers performed many of its fumetmos，aml the markets of mondra twwis confine themedres as a bulu to the sale of certain clasers of goods． I－a manle they are no lenarar the impertant somece of profit to tha sate that they were in the Miadle Ages．when the Lebying of market tolls was one uf the most lucrative ma－



norial rights. In the L'. s. markets have mom how sum im portant features of town life as in liarope. lovance of the


 ofter used ly politiont
 to a particular artiole of unifum ghalify. as whon ot is and that there can be bat one price fone aisen catmonaty at sany time in the same market. 'ihe -tatement womblat bo

 grames of the article suld.

 scription. In the conatry the Damblarive of ath marbitplace are detined, and the marketalage are hixed. In the

 is a marke wert for ateh thinga in the owner cirdinarily sells there. By Enelith common law. the bona-tiofe par-
 although his vember hat wither thle nor antheity (t) sell. This exeeption to the gemeral rald, that no man win aixe a




 completed the treaty of sald cout of the fixm limit. of mar-

 have the labotit of the matery wert exception anders they
 to the man whame goms have Inera taken to make pur-nit of them, and prevent thoir tuing whl." llenee it has then fold that a sate by sample iat market wett os mot within the exception, nor a sale to a lathlon shokemer uf ennls in which he dealt. nor a sale hy him in athow-romenor his.



 of it, but is lintile to the right fal owner fur comverabin.
 of lurese in mathet overt, and frowidme that the property





 verting or diapomg of the propery. Tha-bathtoll ex-
 carly common-taw rath that in the ra- of toblen ennts the
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II. . 1.

## Marl : sen labestore.



































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 the gartial diandery of treanhah intrigues whth the ex-
 stured to faber, ant and the emoning yeare of the wign if William in fater protentions of levalty, sulatiner military


 Willian sor far restured Marthormerh to faver as to apmint


 1honama, beremu at whe the mon inthential subject of the
 of Laty Marlhmorhe and that of his son-in-haw (indophin.
 the chief emmant of the amies of the formidalde alliance
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 brometht him the lukednon of Marlborough and the thanks of P'arlament: ther sumerase were afterwand rerognizal be the grant withe celehtated man of Woentack, on which


 the fullowing sats be cainel the notable lathe of Tinle-




 retnend to Fingland in Got. 1all, but was rharged with fucculation shoty aftor, and the duehos having fallen from Ammés faver in the same yar, the Ther ministry at larlay
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 agamet the l'oternder, pared the remamer of his life in




















## 







 onder to stady simerge. She bet with much sumen as a

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 tise syle and by antimsly apmatime mondy to the sentimentality that alos to the lowerimetimets of a ciass of readers
 15 si .
. Dehts Goebel.


 dued umen the stare in lave the first part of his tragedy of Thmburfuin", which, though filled with axt ravagut harhts. exhititad more paticemine amd bether dramatic combination than any probins binglish phes. In lass he brought out his Tragienl Mistory of the life and Deuth of Dr Foustus. i mond bart if Tambirlmine was athed in 1.5on, and he wrote two wher plays. The dew of Malfa and
 tributed to Mardowe, and ley many reritus be is believed to be tho athor of the surwh and third parts of Menry Pl. inchumet in thakspares warks. lie alsi mude transhations from Orid, and wrote the first portion of a narratise pem, Hew, wal lonader, Which was completed by George Chatman. Ite dien from a wound received in a quarrel at beptford, dand 16, 1593. The hert edition of his works is that (If Dyee (3 who., 1850). See Exaliou Laterature.

## Revised by II. A. Beers.

Marmier, miarmi-à, Xaber: writer: b. at Pontarlier.
 sarims literary enterprise and sumt a large portion of his time in trawling. He visited switzerland and Holland in 1s:30. Girmany 1839, the seandinavian comatries 1836-38,
 In 1 sti he was appointed lifratian at the dibary of st. Geneviove, in laris. and in 1 sio he was elected a member of the Actulum, Bexides translatime of dramas he Get he and
 lue publinhed Mistoire de l'slande (1sis) : Lanque et littera-


 tres suel" 1 mériqup ( 1 si?. a vols.): Lethes sur l'Adridique



 Sputzery (1-ixs): dinzithe (1sima; Les Masards de la lie

 umus of versu: Sisquases pertiques (1s30): Jósies don


Mar'mol, Dose: author: b. in Burms Ayres, Argentine
 torahip of kosas, and sant many yeare in exile, traceline "xtensively in sumth fourioa; in the eivil wars which led
 (bumbly was sumtor and depay to congeres from baenos Ayms and wa director of the hatimal harary. His works



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Habera 13. Smoti.




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 exposed．The Hepule jurchase is whe of the lant－hmong species．




































































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＂ffence to the amatore somety there，and went to Therin， whre lue died in list．Bustacs writior oriminal verse，he redited the Romon de de liose amd the furms of Villon．Ilo is masily the formond font of his time，lout jt is not flepth
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 ough rditum in six wommes was heman by（i．Guiffrey（wol．


 18゙メースの。

1．（i．（ANFIELD）．
 Gormany，Apr．19，1s！e：stoded from 1 suo－sit in berlin and leripgir：was director of a ghmasimm in Gotha，where ho died XoN．30．1 wie．Il，was widely known as the anthor

 and vii，of Mommsen－Mariuarlt＇s Manduuch der römischen Alterthëmer．

A．G．
Mardur．Ledfers of［fram Fr．lettres de marque；ef． ［ierm．mork，sitn，symbul，seal］：in international law，the connalat of a foverniment，expressen in a format permission， that a corana vesol may ate as a privateer when the reguj－ site bomband formatias lave been wiven or compled with． T＇he worls are aplained leot ly the dremeh lettres de morqui－i．e．of stamp，or stampal letters，Jike lettres de frehth lefters of seal，in maded with the kinges signet，but suedally giving anthority to arrost．＇lhey are，then， simped botters allowing reprisals or private warfare see JRNVITEERING．

I＇．D．Wholset．
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 time inhmis are inhabitul．＇lhey are all monntaimoms，with great deptlas of watere chow to them，and pore harbors．＇The Climato is warm am！hamit，hat mot unhealihful．＇Tle ritiry somen is from diay to september，with a shorl raing

 furmond with（loon valleys and it in to these valleys that
 liase and laxuriant．＂］＇he enmmonest tree is that of the breatimat，whind firmishes a harge shame of the food of the
 fonmat is very riell．＇f＇he inhathamts are chasely allied to the Tahitians，abllatye the rephtation of having the finest phys inal faras kamwn．flatmoner is maversalfy faticed．（＇an－


 aldes in lses．The matives are warlike and skillfal，yet hospitaldo，affotiomate and indolant．＇Jhere are few for－ rigners on the jelands，mostly hemeters from vensols or Thamese．The peritical abministration is mater the Thatiti







 ne！！rajhtiguets（16sis）．

 riv．of maranefer，clecticr，mala，deriv，of marque，mark，
sign : : the dearation of a sarfand liy thin hands of woml. ivory, metal, turtuino-ahell, or the liki, arrangot in fathern


 out other materials than wome. Nampery diftors from



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 cipal cities on the (ireot lakes. It comtaine a laman father

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 athat los. In emrly life he task part in the civil ware


 sitions. Margurg is recgathel as the lowt of the momern beruvinn parts. Buth for purity of diction athe ridmeme of

 lection Sotas perdidues. which was followed be varione

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 He was an methern of Sata Aman hembed a mownent in
 hat important military commanks. In thu" "lioform war"
 and Miramon, and after their defeat hy Jamm hewntiment


 the empire limsught him lank in out., 1-titi. ams her louk command of a division. H1. was sont la Bevine in Mar.






 where he tomk put his reaidener. Jle wis "xpromly
 cused of great eralty. aind was nichorand the "haser of
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Mabkiser..
















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Sanks-matrate and the listriarekel Thwory.-The form
 priation of the womat by the man, is eallod hy somitio sehmars the be'nl or water-whe marriade ; by stmbents of

 inter the " hami" (manus. munt) of hor hasband: and it

 is the primitise form of mariane is in accond with the sus


 is hased on the patrianehal fanaly.

 resartiner the earliont furm of the family soma monlern




 amd a momber of such matrimomial grongs being inclulad

 more or bena jermanmat retations witla a manber of hasbands. is : phative (if ant the frimitive form of the fanmily. still oflers matntain that a fre"funt (if mot miversal) firm of carly marriage is that in whith the wife demans in

 turship or any eonsiderabhe maree of marital aththerity
 woman is the luad of the lataly (matriarehede).
 in momern times. of satid to have prevaled in the prat
 early mothind uf traciar kinabip. The evidenco furuished by atetalal colon is, bowever, by mon mans conelusive. l'romisenity, pulvamery, de., are sporadie, not general, whenomona: and in many tase it is probabo that they repre sent combarativoly late conditinas, dat wat to normal evo

 mothing as to tha mature of marriage itsinf: :and that the salling or hombing of wios, su freencotly moticed among Prarbatrons foropec, is rather ata assertion than a hergation of matital mwatahis. Nopo impertathe is the evidence farmished by early sustoms of kinship. It is eominer to lo Entuerally concombithat in the carlient stares of social eso lution relationahip is met trated thrment the mate lime at
 or coqumbir relothomship. It alan semems clear that kinchip betwoen father amb child, what it eomes to be recomazal.


 of the patriarehal thenry hy asartinu that in primitice so-







 form of relationship. W\% fiml that relationship ios the
 bowen saraces, in prite of the fact that their marringes are uniformly monam! ous, and that the hambat has the fall"at pewer over the wift. In is much higher stage of meind

 1., heprond primarily not upon the form of the family, bot u!nn the contorn of the chan. Acoroling to ita own theory,
the" elan is atwas based ton kinnhin: the tite which holds it


 tweon " mother-right" and "father-risht"; but this is not



 monherscolan or to the fathers. With the accepennce of a

 froman line or thromgh the male line: and the line which is
 commanaty. It is perferely concervable that the fomate line may be chosen; aml in this "ase "mother-right" will maintain itself long after baternity has beeome eertain hut this solution of the question semus to be exceptional, or at least transitional. Is a rula, the woman is aken into the man's clan, capture and prombase alike bring her there and her ehiletren are aceomated membere of his chan. 'This certainly wav tho sytem whioh provilod among the Aryan or lamoficrmanic races, Anong them the clan mame deseremed in the right mate linu, us our modern family names sill deseront. Among them, a long as the gentile or clan ormanation was still strong. kinship throurh the male line (rynutir mbtimathip) was cither the only legal kinship, as was the cas for conturios at lome or it was at least the mare impurtant form of kinship. ('f. the position assigued in rarly (inrman haw the the"sword-kin" (schertmagen).
('mulusimas.-ln view of the above facts, it nflears very dombtal whether pomiscuity or gromp-marriage or poly-
 orsanization: and it semas comain that mone of them is a gencral tye. It may be adderd that none of these forms of sexual asionetion is ceally entitled to be called marriage and it is not ensy to see how any one of thom can have farnishord even a statinumoint in the rabotion of monandrons matriate. It is equally doubt ful whether the form of marriane in which the lashand "uters the wife's family is a really primitive form ; and it is corain that it is not the starting-point from which Imbu-Germanic marriage has been clerived.

Laterative. Mame. Ancient Lam (lamdon, 1st ed. 1861; 7therl. 14*s) : Early Hisfory of Institutions ( 4 th ed. 1885) ; L'arly Lam and ('ustam (1883): Bnatofen, Das Mullerrecht (Stuttetrt, 1s61); Auliquerische briefe (Strasburg, [8s0(6) : Morsan. Systems of C'onsmequinity (Smithsoninn contributions, vol. xvii.) ; Incipmt suciety (london, 187T); MeIrmman, Stulies in Ancient llistory (Lomlon, 1876): The Mhbimerhel Theury (1ssid): Heam. The Aryan Howsehohd (Immlon, 18:! ) ; von Jargm, Mutterrecht und Raubehe
 lippurt, (ieschichle der F'umilir (Stutlgart, 1884); Giraud'leolon. Les origines da Mariate (Geneva, 1884); Rovertson Smilh, Kimship and Marriape in Éarly Arabia (Cam-
 York, Iss'r): l'os, E'nhorichlungueschichte des Fumilienrerhts (Letprig. 188!): Westermarek, IVistory of IIuman Mumingr (lumdon, Is!l).
II. Roman law.-biarly lioman matriage was based on the aropusition, by the hashathe of manus, In early Roman legends there are traces of wife-ctutare: lat this form of marriage is not recognized in the sumal haw (leges regia) nor in the 'l'welve Tables. Manus (amd therefore marringe) was exiablisbel among the gatricians by a religious ceremony (confarreatio); among the bubians ly burchase (ro-emplio). \(W_{0}\) find also in carly koman law that if a man exereises marital authority war a woman for a yar. he acouires mamus as he would nepnive any other property right, viz.
 there was ultimately developed a frep. comsamsual marriage, withont manas. 'The acruinition of manus could be de[adal by a briof ammal absane of tha wife from her has-
 ont manas, the voluntary union was lugally a marriage. In the lato koman law this frew undon was the gemeral form of marriage. It was based mon the agreoment of the man and the woman (ronsonsus, nom comeuditus, fucil muphos), although, if wither af the paties was under jaternal anthority the consent ar the fathor also was neeresary to the validity of the contract.
 but the rogixgoment to mary was not capable of sureiticen-
forcement, nor, in the later Jowlopment of the law, cend any fenaty le sowerol for hathe of the promise.

Marriase wan dimonhlin at phanare log rithar party. 'Th
Roman juriats doneribed marringe as the shame of for-
 meant a pohmary sharime, ame bed that a pmanee not to exercise the right of divater waw inwald herone emmor-

 by mutani consent-a prohibntion which his anceromer ret peated.



 [marchase (Brathenf) is the momal form of marriage: Bmt wifestealing (fraturenh) is still remgnand as mablinh-

 horses) has theor pail. Smome many (iarman tritne the penaty paid for athlation and the pria patil in busura wife are identical in ammont. Wifo-purctano. like other
 livery. Sale comints in the armemont of diver. anompanied by the payment of a pat of the price (arron) or the giving of a pledife ( Wefle, utedium) th bind the barmain. Delivery of the hride was frembenty cluthed in the ferm of alnhuction, followed by the paymont of the full prien hy the bridegrem and bis kinsmeth to tha hrides kin-modi.
 an abduction previously agred ajam." it a latur furpond both the ploder atsl the price are paid to the woman's father or guardian, and at antill later perion to the waman horme. The modern betrethal ring represtots the wemme of the primitive sate. 'The mariase atthenent made hy the hasband represents the full payment of whe was one penalty and afterward price. Whether. in Thentomin law, the reflation of hatamat and wife was establianel by the sal. or lat the delivery, by the Introthal (Vertolneg) ur by the marriage ceremony (Traumg) is di-putal. Sohn a wert: that the betrothal, acerording to Tentume intas, was not anarerement to mares but a "ontract of marriase, and that the ceremenies of idelisery reprement simply the exathtim of
 te and the linghan "wedinge" amot the intruluction of the troth-ilighting intomedern marriagenervere). Others-and this is the enomal opinion-hold that the matrimmial relation was establishet ly the giving of the bribe to her has-
 lished or "comsummatel" only" hy comentitus (copula cornatis). As a mater of fatt 'fontonio cantom arm- to lave attached some resalts of marriage to the bet rothat, whers to the cermony of marrige, and yot onfors to its conammatiom. All thase ihana had an iallatace unan the development of the camon law.
Barly Toutonic castam allowed the hushand to pat the wife away for calls. (e. adaltory, harremeso), and it prothably recorniad divaree by mat coment.
 of Sohm and Friothery: Sohm, Eheshliesseng (Wrimatr,



 292: Brunner, Deulache Rechtageschichte (Laipha, 以: i., \(70-81\).
 dechared marriage a anerament. It therefore chamed, and

 form haw of mariate fur the whter (brindan worl.

The (laureh acepted the dutrine of the lowan eivil
 ment of the partios. It asepted the lioman are uf mon-



 ecclestie) and then to comsen rate the marrabe whthis the
 lieation of hams: but antal the timatel of Trent. an the
 was compldely vinlis.



















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 ramon law of marriage : works on the public law ahne der but. Tow of the mot sempat thatises wh thathin law







 ha formation hromght with it namementango in the law of marriage the most imporant of what reanted from the rejection of the sammemalthory. la some torritories these chancw were made be eqlesiatical antherity, in other by

 thoritis. In (ermany the territurial prinees were thourht to deal with marriare rather in their "apacity of supme thishogs than in that of sombar mhers.

Brthothel and. Warriage.-lather poteded aquinst the
 prasemi, un the ground that it was foren to the instinets and hagate of hivematrgmen. "Wilt than" and "1 will." He herlared, wate not. in German, rerbe de futuro: they expromed simgly volitinn, ranemt. He therefure insited that all betrothats, manden exponly male subject to

 a present matrimonial ennent, and constituted at hat and inchoatr marriage This view was dominathe in fermany until the cighterth remtury.
The evil of chandestine marriares, which was rather exaggerated than lawnent by huthers theery of betrothal, wan met indiffernt was in different German territoris. Con-
 or an recleniatieal methong. Thureh marriase was re-

 held that anysurt of hetmhat followed by concubitus estabbished a marriage, a rule which made the requirement of mablicity illumer.

Bühmer (Jus Pïthsiusficum Irotestantium, Halle, 1714)
 sulia are alwass in primeiple de faturo; that the emont given in buthat is ma a consmo to marriage. hat to betrothal. Retrothal followad by ronculatus constitutes indeen a "natural" marraus, hit by positive law the bene-
 The ercle iatimal marriane is therefore the only perfect
 in (irman legishtimh hing the latere part of the eighteenth sul the early part of the ninetemthementy.


 Continent-whor her bur lather hand mot been onplemented
 har-is a mathor of dispute. Mang anthoritis hold that





 not aboblat"; that premef to the combary was atmisables. All uncortainty was romosed by patates pared in the
 marrate praceded by publication of hame "ampt in the




 was afterward reperath.

 mantry. sumbers (imas.
 thery of apithal kimhip. and narrowed the impediment

new rulas were hased in some territorios unom the Roman civil law, in whers path the Nasabe law (laviticus xviii.). In Euglan the Levitial derees were whond he acts famed in the relign of Honry Vill. Thic sertem limited the imperdiments of con-anminity and allinity to the serond derrec, and permittod emtain marriages within that degree, \(\therefore\) betwern first cousins.
Pirence- The Protinant eharehere of the ('matinent re-
 alultery only, inothers for maticina desption and cruelty, and by reasion of the condemantion of either party to imprisument at hard labor-partientarly in thone eases where at mare hamane tombary in legishation had sumbtuted the penaly of imprixommont for an earlier penalty of death. The (hureh of tingland, on the enntrare. alyesed the granting of divoree fir any canse and where divores were granted by suecial net of larliament the ecolesantical auhorities ware umwilling to sanetion a second marriage.

Latematem-For dirmany, works on Church haw. Catholic and l'rotestant. ©. \&. Mins-hins, hirchenrecht (Berlin, 1s69-ss) : Friedterg. hirchureht (Leipzis. 18s9). For Englam: Burn. Efrlesiasticel Late (9hle ed. Iondon. 3842); Phillimore, Eerlosiasfical Lame (Lamdon, 1sï3).
V1. Momis Leghlatios-Europe-The modern state regards marriage as (primarily, at least) a civil relation, and esen in (atholic states mariage and divorce are governed W-day by eivil herishtion. The most imprant changes intruluadi by modern legishation are as follows: (1) The aye of comsent is generally raised. (2) The romsent of parents or ghardian- is penerally made a condition of validity during minority, and in some states fur several years after majority (so, e. g., in France, lably, and Gemany). (3) Marriage must be pablinly contracted. The earliest form of compelsory publir marriuge was, as we have seent the chureh marriage la this form the principle of publicity was introduced into thee ('atholic states of Europe by the Comeril of Trent : into l'rotestant (iarmany and lingland by civil legislation. The shureh marriage meant, at dirst, marriage arcording to the rites of the estahinhed Church of each comary; but the irritation exaited he subjecting the adherents of other confersions. or of no confession, to such a form of marriage hat led in some satas to the recognition of marriages celebrated acourdiner to the rites of any recognized conferion, and ultimately to the general establishment of ciell marriage, i. e. marriage before a secular ofticiol. In lingland marringes before justices of the peace Wrer ituthomal umber the Commonweath, but disappeared with the Revoration. In the nineternth century the act of 6 and T Wim. IV.. © 8.5 (supploment by acts of 1 Viet.. c. 20, and 19 and 20 Vict.. e. 119) furmishes an option belween marriage acerrling to the forms of the established church, marriats aceoting to the forms of other confessions, and marriage hafore a "rogistrar." An gitional or "facultatise" "ivil marritge "xi-ts also in Amstria, spain, and Porhagal. In a larg nomine of continental states, however, centlicts with the catholie churd-arising. in foneral, from the reforal of that (lourch to recogrize the roles establinhed hy the state: in partioular from its opposition to marriades int ween (athodice and mon-('atholies, or its attempt to make the celderation of shel "mixed marriages " cmulitional an a phelse that the chidren shall he bronght up in the :atholic faith-have resulted in the establishment of the whigatory ciril marriag, et. ge in Franer, Italy, Germany. Holland. and Switorlamb. The civilmarrage is regnharly peredefl hat noteremended on the hams of the Cathwhe Clurch, and subserving the same purpoe of pohlicity.
The tepuirement of public marriagio has swep away all Ambin as to the matire of betothal. It is merely magreemont to mary at some future time. It gives no colaim for -beitic proformane. 'That hrath of promise of marriage reatre a clatim for dambes is denion or disputed in many statuc, but athirmen in diermany.
Mimbunes- Anerthin to the law of mosi l'rotestant and some Catholie states, comsanginity is a bar to mar-
 brohure and sitere, male and niere, and mephew and aunt. Shme dates (r. g. l'russia) himit the collateral impediment 1. Henher-and sisters. Ahinty in some l'rotestan states ( 1 . P. Prusia) is a bar only inthe right line, and nat bet ween collatral. Raglamstili atheresto the prohibition of marriage with the deename wifts sistre lewen in thase ('athWhe shatw whid elmg most doxily to the Roman cer lesiastionl haw thor is a frmaney to limit the impediments of 'onathoninity and allinity to the third degree.

Divorce at ratulo is generally permitted, hat dir rames which vary groaty. Jaly, Sbain, and lortugal prant n...


Lateratione- Pror comparion of the laws of the prinoipal



 recognized in the \(\mathbb{U}\). \(s\) is simply the cammical marringe by agrement de presemia. Su agremont de futura, thas his


 States consent is not sutheident to montithe marringe without a publicerormony or actual comsmamation. 'The law of Lamisiana regures the observance of errain forms and wolematies. Ia Nevada marriafo between minors rature parental consent, and failing suet ompent, the marriape ajo peare to be invalid. In the ether commonweathe alif rulas regarding parental consent, shlemazation of mariage by clereymon or secular magion mates anties uf intention. issue of licenses, ete, are merely directory, or entail mofor ther result than the pmishment (nsually by fine) of the parties, or chergyen, or marist rates, who disergard them. The system which provaik in the C. S. aceurdingly affers an election between relginas martiage eivil marriage, and completely formass marriage. It may headded that it would be practically impossible for any single emmonwealth to suppress clandest me marriages as its rules would mot atfeet marriapes contrated by ita cilizens beyond its berders.
In the absemer of statutory prosision to the comtrary, the age of consent is the canomical age, viz.. fometern for mates. and twelse for females. In many of the states the nere has been rased, and rarios from sisteen to twentyone in the case of males, and frem fometen to dightern for femalis.

All of the states prohibit marrige betwon arombants and deseendant (linea recto, and hetwent trothers and sisters of the full or half bomal. Narly all prohibit marriage between uncle and niece or antat and nephew. 'lan states forbial marringe betwed firs consion. Allinity is unally a bar only in the right line, i.e. betwren step-parents and step-chideren, and hetween father-in-law and daughter-inlaw, ete : but in a few stato elose collateral alinity is mate a lar. Marriages within the prohibited degrees are geterally declared to be void. In many States marriage is malawfoil betwen whites and perams of A frican laseent, and in a few betwern whites and lodians or Monorlians.
Dieorce is grantel in all the states and lerritories exerpt South Carehina and Xew Mexieo. The emaere vary greatly in different states, sume graming divores only for aloltery, some even for incompatiblity of tempr.
Literatire.- Bishop, Marrage and Mivorce dith me. Boston. 1881): Noble, Comphet tien of the Shate Laus of Marriage amd Himare (New Vort, 1sive); Rohinsom, Marriage and lhoorce (Chichgo. 1sed): Stewart, D/urriage and Divorce (san Francice, 1ssu: Snyder, Grogrephy of Marriage, or Leyal l'erplexitiesof Hedloch ia the l'mited states (New York, lssa): Wrisht, Report on Mariage and litorce (Wushington, 1889 ).

Ml мrues smith.
 and tile ( Nith States.
The word marriage in law, as wall as in puphar wate is commonly used of two things which are in the mature widely different-namely, a contract, that is, the act, the series of acts, ot the cormony be which a man and a womat! agre to live together as hunbal and wife: amba" thta," that is the combition or relatimohip tward on another and toward the commonity which is montemplated in and arime out of the comrant. Techminaly, this status is the condifion or relationshipe in which a man and a woman may lawfully eohabit as husthond and wifa.
The marringe status is dintimenished from a contrat bey the facts that when obe crated by the marriage and ract it

 does not affer its comtimed exhlenere that it abls only with death or diswlution by logal pirnews: that a mimer ran
 age of consent: that mon suit for damate will lie for monperformance of its duties: and that the canes for wheh it can be dissolved by legal proces can be validy chanded hy legislation without volatine the ebligation of a compract. and also change with the domiethe of the jersons married.















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 tager reanmbly exaeted frim the marrage hy the jhantat. wommed ferling the matitiontion ariving frim the birath, and the positise injury th the phantif: propects in he
 promise of marriage may lagally be shown inan ageravation
 keep the kuwhetre of the fart from the jurs. . I bremon of the wht ract wheh wilt be a watiecion hasi for an action in damages may arise from the fact of a fursinformiong to marry when the knows that he is hegally daspalified, "r is inapable of performing the daties of the marriate relation
 it imossibu for him to fulfill the antrat an hy marsimp another) or from words ir ants showing hivintort not io do so, or from his failure to faltill it at the fromer time, "r an suel regunes as the law requires. It in enerally hed in the case of a woman that she med moly prove that he beht hersilf in reatines and willingho. to lie marrich. Then contract may be rescinded be obe paty by ranon of its bemon-
 reason of bad health: for the frand or dereptimu of the ither barty, subh as the bonecalmant of previms humatity or the
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 wher party from preperly fultilline the maralal dutios: fur



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 vide that ma valid marriage can take flate, all whar satatory formatition bemg hy the peling of the law hotel for he

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either of the partim, nor toblaterally at ans time. When
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 Sete atwe (under the subdivisons Reman Ledismationd
 foum) for mention of the disabitities imansed by the eccle-







 marriage still comtinuing.

At the common haw the ayp of consent at whish a boy or
 trat withem the bonsent of the parents is fixed at forteen
 defferent from that of majotity am lixed with refermen to the probable age of attanine pharty, the yeare hing derivel from the koman law. A marriane lis a dhat unter the are of coment and ower seren satrs of age jo whlable by the - hath umon rembine the age of conemt, and anarriag by

 statate. See under the sub-heading Mordern hagishatione, ahnes.

The haw with ressurd to mentul capurity of the partios to a marriage to enter into the enatrant is an aphention of the general rule gosemine the formation of contants-namely. That the parties must he capable of ambertandine the nature
 definition can be given of what eontitutes such mental coifraty, but it is sutherint tu say that the question will be Whidel? by madorine the simple nature of the contract entered into and that it is only the immentiate consequences that must he umicranol be the partios amd not the remote


 catow.) Su a marriapu cotered intoby a pelsunduring a
 insunity womblat invalidate the marriage or be a gromad for divate exept ander statutary provisions.

Ihysionl intrumety, or imputener, in the irremedable incapacty of a pary to a mariare to hame any reasonable sexum interemer wilh the other party and in order to
 for divere mast hate exintal at the time of the marriage
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 time of tha sucend marriag. is of comes wid abolatidy ;







 combun law the ehildren of al ligamom harriane are illo-













haw in tha U. S. (h) Thu has gowerning the marriage of
 not ald in harmany, hot in arneral it is settled that sabes wore capald of entring into a certain inthate or impre foot marrian relatimatip, wheh wn emaneipation and contimand mathitating beratue at amphote mariage with no further actar the pation. (o) biffernee of race is an imfediment only when supporided batatute, and in maty of
 ramen (misecgenation) is forbilden, and the celebration of sud a marriage is mate a rime.

1/arringe Acrompliwhed by Fraul. Error. or Duress-Althongh the form or corethony of a legal marriage may have been erne through with, if either by remon of frami, corror (or mistake) or duress there is mosh meeting of the minds of tha partios as is essential in the case of an urdimary contrat the satus of marriape does not arise. "he party who wed under fram, duress, or aror may have the marriage dectired mull and voil, or may ratify it, on discovery ol the fram or error. 'The gatitiention may be low words or acts ahne, as by continued cedathitition. The frand or error for which at mindige may he hedelared void must be such as afferes the capacity of the parties to properly fultill the relations to ome amother of hathand ind wite, ir the consent of the part ies the the ent ring into ar assming the duties of this relation. Thas prenamy at the time of the martiare by a
 avoiling the mariage but not deception as to the health, previone dhat ity: a' wealth of the other party.

Forigh Dhriatys.-The institution of inarriage is of such a nature and sunveral that public policy demands that the validity of marrianto wherever celebated, whether frymons in the hand of their tmmicile or by persons not in the conntre of their domicile. but white abroad in a for-
 umder the haw of the conntry where colebrated, unless such matriage the of sudh a mature as to be inemsistent with the generil rules of propicty or morality according to the standards of rivilizal nations. With some exceptions, which can not be particularly noted liere, this is the almost uniseral rule : and the pratice in this matter may be contrated with that forlowe? as to remgnizang foreign divores, Whre dmicile of ome jarty at least is necessary to the validity of a divore

Merriate Broctaye Comtracts and ('ontructs in Restraint of \(1 /\) urritge- \(A\) eontraet by whith one person undertakes to hing alomt or mertiate a marriage (terhmically called a metringe (rooroge comtruet) in woll as against public policy, withont rugat to whom the consideration is to he paid, sinm such contracts temb to hring ahout marriages throngh frand amd collasion, or marriages for unworthy purposes. Contracts in restraint of mariage are also wholy void, for the phicy of the law is to firor and uphoh mariage contracts. So a gift or berpmest mate to a donce upon the condition that the donee never marry or do not marye for a com-iderable hom th of time during which a marriage might haw fully be edebratel, is wod, exep under certampeculiar diremminaces where the dietates of commom morality would sugeres the refraning from marriage all hough lawful.

The foreroing brive seteh, hasell upn the common law of Fingland (amb lreland) and the L. S., will serve an antline of the laws of Southand umon this subject, since (with the abwenomed exertion of the remenition of irregular
 Enaland chisfly in matters the unimportant or too technical to bo mothl here. For abibligaply and further informatinn is la the effer of marring on the rights amd duties of


Narriage may mpmo or may injure the health of the condrating partios and the perabilities of heathy off--
 all abse owe twaty bars the doah-rater of married males are hos than thos if the ummarrimi, and al all ages over
 Hhom if the mampiond. At all agres the death-rates of wifl-
 II have hever bern marrial, while at age futwern twenty ant forty the death-rate of widows is Ereater than that of other wom, and wer forly it is grater than that marrion whens, tut less than that of simples women. This will the seen ly the following table, combiled by lartillom, show-
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It cann alon be slown by shationes that insanty，intmandr－
 ease，as for instanor，whomern，are less frequent anomig the marrient than nomong the manartied．It hoes not，however， follow that these differances in death－rates，amb har enor－ respondingy areater longevity of marriel pronna are due wholly，or even partially，to marriage，or that marriage in a mans of presenting disume and promaring lifoto the rextrat
 energetio men and wamen are more likny to marry than
 disense．and therufure their deatla－rates shombl be lower． This will probatly mot moerome for all the dilloremers，the married state being sumewhat healebier than the umane
 in montis than it is in mans．＇Thedeath－rate of bith yonthas
 and such martiages are，in almost all cances，mandriabla on hygionie gromuls，ceperinlly fupgrls，who ate liable to be－ come chronine in malils as the result．


 are decobally atpeted by tha age at whinh marriage tates flace：thus of malas mbler so yars of aze marryinge abont Q4 per cent，have children，while of maten marryiner hetworn




 the woman，as arale，anorn than the man：they are dae


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Married Woman：liy the oulhtratsan of the marriage



























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 he him. Inthe applention of this rula, howner, the eomets

 malde hy the hathand in gond fitith. sime many uf the


"lhe citigenshis, like the chomicilte, of the wife is the same as that of the handamb, at that if ath alien woman marry a citions of the 1 . S. Ahe boonmes therems a citizen of the
 at that same time har landmand dome the haturalization.

In the regulation of the hansehalil the voiee al the hasband is supreme the expent on wheh he may go in asserting his riert being limited only by the enduramee of tha wife providing that he kerp within the bounds of what that law comstrun to lu such crouly as will emable the wife to doman! and receive a supprt sepatale from him or to ohtain a diwner. This varime greatly, and what wonld be consinlereal his logal right in the mattir in Englamb, where the faw insill striol in the remonition of this right of the has-
 to nhtais ond or the other of the alowimentioned remedies.
s"mpurt by the Husbumd amd surrices by the Wrifo. The hanhand is bomal to provitu a loome amb shpport for the wifo and their otfopromer which shall be in kreping with has ciremmstanes and monas in life a and the wife on her part is bumal turember such domest id sorvions as these circumastancos amb means rembrr reasomable, and to acommombate herable 10 whatever unfortmantr vicionitums maty attend him. She ran mot in any rame "laim rompernsation out of his rostate for services rublertel tulam.

Whenever the hashan! refoses to smport his wifu in a manmer suitahbe to his riremmatames and complition in lifo, she by oneration of law beoomses hie atatut with power to fladare his crodit and make him lable for obligations incurral by her in forchaning aboh thame an may be neeressary
 exprose ortars. If he offers her a home am! support sum
 station, on under tu mata him liable there must be very stronere exilonew to pruse that his judement was perverted

 what "xpmoliturec ara and what are ont warrantat. If he
 makn it impmable or interlerable for her to aceept it, she is
 fherge his rowlit as folly as if ho hat refusat to support






S'operty Kighte-. It the common has the colderation of the marriage vems in the hoblame (1) abolately all of ber





 ramet is that the lashame mat wequire the tithe to the prope


 than wher of the property. I'he ehattols real (lenses, dotates
fur vars, ete.) of the wife are exceptional, in that upon her leath hiv titho then is aboulate withont any act of owner. hipenn his part, and upon his death they vest alsolutely in
 tion or lisposilime of 1 ho whole term. (2) The right to manage and receive as absolutely lis own the profits of her real watat during their joint lives, and aftor har dath the right to the life estata of elortory therein, he surviviner ant
 this property the wile mon the weath of her hasbame re-
 whal property at he has men by sme ato appropriated as
 (1) her comblition, kown as her purephernalia.

I'roprty anduirnd by the wifu subsenont to marrige is governed hy the same rules as that helid bey her when marricel, and so at the eqmomon law (which has gencrally been abrogated in this respert) the eamings of the wife in whatever enjacity belomg absulately to the hasband, and he (or life arbat) abone can revoijet fon them. These rights of the hasband du not, however, extand to the property phaced in trast for lier suld and suparate use; and equity abridges them with resuot tw her of her property by protecting and aforeing any marriage settlements made bet ween them, her "uity 1o a settlemont, and her right to a similar settlement if in promtion (nsmally a half) of property coming to him in her right dariner marriage.
While at the common law, as just stated, all of the wifés property held by her aboolutely grese to her husband, at aquaty she may have anpabte astate (i. e. an astate limited 10 her sole amil separate use : see Lses and Trost) which she may manage, and with leference to which she may contract, and sue amb be smol, in her own name, in a manner much the same as if umbarried. The doctrine of the separate estato of the wife is a comparatively late development of the equity enurts of Eugland: and in the U. S. owing to the lack of courts with equitable jurisalictom, the subject has generally been regalated by statules, which have in general gone further than the ennity doctrime in recomizing the wife's sparate estate, amd have in many states provided that the property of a woman married thereafter, or thereafter aequired by a married woman, should ramain her separate boperty, givine har all or practioally all of the powers of an unmaried woman with respect to it. The separate propegty of a marriod woman may be given to leer by third parties, or it may be setthed mon her by her hashand by a contract (post-muptial splflement) which is binding upon him exeept it be in frame uf third parties, the consileration of lute and atfection being sullicient to make him a trustee of the property for her.
'The partips to a marriage mat, however, by a eontract (mariage setllement) in the matme of a conveyance or trust deen. cntarad into or arread to be entered into (by promises aml agreements callod marriage articles) before marriage. vary their matnal froperty rights from those which they
 tion of such a contran may be either the promise of marriage its.lf (as is more nften the ease) or any other valuable consideration. 'Ihe' marriage settlement by its terms secures land or trust proproty as a provision for the widow (usually as a jointure in liati of dower: sce Jonstume) and for the children, and (semmemos) for the hobami. Such a settlement may be male or fommed by thind parties upon the consibleration of the promise of marriage, and is then enfurerable arainst them. The objeet of making a marriage soldement in fropurntly torespre intact family estates.

The wife, wh har purf, ohains by the marriage no interest in or right of control wer the proserty of the husband, exerpt a certain riaht of inheritanee to a share in has personal prowrty (which he may gemerally defeat by will, cxepet as to the garaphermalia), and the right to lhoware (q. e.).
'These promerty rithts of the hastand and wife lave, howwer, bean very wemerally changed both in (ireat lbritain amb in the I. S. by statutos which mome or less completely take away the rights of the hashand to the property of the wife (emaling hor to restrain and manage as her own with some or all the jowers of an momarried woman the property. real or !"rsomal, which befons to her at the time of marriatra, lating untouched the common-law rights of dower und curtusy or substituting for them some statutory equivalent), amil whirh give a (onresponding exemption to fle hushand from liability for the antornustial dolts of the wife.

Ante-muptiat Ihebs of the llift--I'he hashand, whet her infant or alalt, immediately upon the marriage becomes jointly
liable with the wife for all her ontatambing debta and abligations (whether arisiog from erntrat or tort), whatebor ha. their amonnt and howe wer lithe property she bringato him, even not withatanding that he may hase horn furpucly kept
 however. only solour ac coberture lavts, mither he mor his estate being liabhe malose the dethe or ohligation in hempht to judgumat before the termination of the marraze by the death of either party or by dianoer Ilar liablity mises immediately unn such termination to the amerestont that it existed presjume the tharriase ; and unan her death. leaving him surviving any chmorn artion mot raluend tio
 payment of the debte, even thotgh they he in his hathe as her mdministrator.
 of the wife commitiol duriug censerture the humbun is jointly responible (in hatapes only) in an artion whill must be brought againt them bath as rombefombatas. and to charge him must he loronght to julerment during coserture. If she commit a tort or erime in his preanere (actaal or constructive), it is prima facie presument that - he daes it under coorcion by him, and he atome is liathe; but this prosimp, tion may be rebutted by evidener showing that she was under no coercion. lathe case of rerimes of the motherms. character, subl as trasom, murler. and roblory, tha grosumption of enerion dors not exist, athe in any vive the general temanery is to lowd the wife alome resminshan, unless the hasamid is near enourh to exert such infuene as amomes to comereion.

Torts against the Wife-As a matural texalt of the wifers incapacity to acpuire prisumal property of her own daring coverture, she can not during cowerture recoser damages for torts against her prean or charartor committend during that time. Her hasham, bowever, may bring suit in his own mame for injury done him by rasin of las beine daprivel thereby of her sorveces or her vociety and "ompaninshif): and with her as coplatintitf he may sub for and remoner damages for such injury as she herself has sustamed. If the marriage le terminaied, she surviving before julsment is taken, the right survises to her, and she may recover the damages for herself.

Agreny of the Hife.-The wite may be the apent of hied parties in the same way that any uther fursun may be, sa long as such areney charges hor with no ubligations. She may be alse the agont of her hashand in the sume way, and she practieally always is his agent for the purpose of porchasing articles for ine in the family. If the artiches so purchased are not surd as the law holds to be neressities for her support (se above), the qualina as to whet ber the hashand is boond by the aets of the wife in making surh purchases is governed by the same rald which governs in the rate of any other ariney-mamely, whether as a matter of fact her hat made hor his agout for the purpere or so arted as 10 estop himself from lenying that dhe was his arent. The simple fact that the twi live torether as hushamd and wif, is ordinarily hell to raise a presumption that she is acthatly invested by han with the anthority ordimarily lantamed ofon the wifr, ame is right fulty making sump jurehas as she deems neressary. As a rule, a husham who suphlins his wife with remonable necessarios mat prohihit third 1 pro sons from selling to hor on his credit, hat acthal notice is
 warning (in the absence of statutory provision tas the antrary) will not he sulticient, except to those who have had actual notice therethy.

Wifis cancity to Make a Witl.- It the common law a married woman ena not by will dixpene of her fee tur real property held by her hustand by virtue of their marriane. she treing denied this risht be the statute of Wills (as
 c. \(\overline{0}\) ). Neither ean she bey will abridge the rights of her husband to her I"ponal preprers; but a will of hers dolnoing of her choses in action is valid upen her drath. umbere hor hushand aseets his risht them bedmeng them the his possession. Her subate eatate, bowewer (we I'raperty Rights. ahove), she is free to devise in any way shere tit.
 her incapacity with reynerit to her wher property.

Capacity of the liertios to bomeroct. - The wapaty of the hushand to make cont racts with thied parties is as fill aftur marringe as lefore. The wife, on the other hand, at the common law is totally ineamble of contrating either alone or in conjunction with her hustand (execpt in certain ane-




















 anare the wif. may har har fower by jominie whi the has



 directly with the other. but thremelt he intersution of third parties the lashami an wallily contant with havife. while her eneral diatility to contract prewnt- her from
 perem. Whereser, therefure, a third party can be inter-
 him as with any other persen, alhongh suh trationtions




 a reasonable prowion for her, by mationg him her truatere

 in which the other is a party. or in which the rewht of the decision will he to lix the interests ur liabilaty if the oflere. thomeh not a party. An aseqpion is matle for thi- rule in cortain cas where publie piliey rapire it, as in thue
 protection fron promal injury by the wher or is meessary to make it fuc-ible to chtain inch restreas the law alfirels for wrome at the hands of the wher. Fither party. however, may teatify in collateral prowning, that is in prowedins bin immediately afortine the interento of either
 inate the wher. This rule rent partly umen the rame




 betwon thom. For has later ravin neither party is at-
 during the continuane of the marrater, wen though nethor of thent ln a partr to ur interented at the action. Neither this or the preceming disabitity man wase wh the partica nor is cither remosed by the termimation of the mar-

 diantility te testify bame unn the miteret of the garsme
 of the inviolability of eommanatomis math durma marriag.














divoter．dt tha commom law mather party can sue thr wher，for thay buth cumetituta hat one purant at latw，so that for injurios hy ont the thersor or prolurty uf the















 tees：Whartuns Lew Lestoon；kiont＇s（tommenturis．


\section*{Roman and Firmomen 1 aw．}

In the Romun lue the wife im munn was as completely
 Hor learall fositun was that of a daushater．Whaterer propl－
 wishis．on the othre hamh．if the wife survived the lans－
 fetatu：With the disifpeatramo of the mentas－marriage，the fomition of the wift was ratically changed．＇I＇he hashand actuined morisht ：over her proproty．It was nsmal，however，
 namer．fur the brites fither or the bride hersutt to julare in the forinerrom＇s hamis a dowry（das）．the yiclal we income from whinh was to be neded for＂defraying the expenses of matrinmay．＂on tha dissolution of the marviace hy the death of cither party，os by divores，tho husband wr his heir was reatarly homad to restore the dowry or its equivaleat to the wife of te her heir－

It was also cuntobary for the hrid＂aromon to settle prop－
 Wat watally whal in amomot the the dos，and as in the case


 prion decease for with the disiphnarance of the monas－


 from wite to lathand of from hathan to wite wore invalial．

 ＇l＇he hasband hat at smamary remedy aramot any third jer－

 ho hatl no pewne to fome his wifo to live with him andinst her will．Cuvala limitations wore intused upun the cat gatcity of tromon to himl thanselveaby contract，but thase
 intemed for thers dyotertions．



















 ar V


tically unlimital．But his power to alienate ratty is re－ atroted．Under both syems the wife has no power to dis－ pame of proputy or tio contract laths except in ordinary
 commanity do joint pronety ja liable for the dobte of pach


 into the imariame amf tho dirst s．stem to later nequests
 water the intluenct al Romatn illats，the soond system was sometimes maditied by dectariner that the hu－bandes paswers are simply thos of a natirne hary（ususfructus meritalis）． Sfter the marriate is diand ved by the death of rither party， the（onmplete or limital commanity often contimas lie－ twon the survivinir sponse and the chatelron．If there are fu chaldren，and if comblate commanaty rexisted，the surviv－ ing spoust：sometimes hakes hald and sometimes all of the joint proberty．In the case of lerualtunysgemeinschuft， the childens wjuow usually takes out of the estate what she bromght into it an！whaterer was sucially settled apon her．

W＇ith tha reception of the Joman ciril law at the close of the Hidalla Agas the syatem of semate property（wepara－ tron do biens，（ifitertrennunt）and the Roman dotill system obtaned sporadie recognition in Northernand Northwestem Emonpe．In Somthra burope the foman ideas，thongh molition by local usisen，hat remained domimant through


The frowincial eutoms of the Nidille dges and the legre－ lation al modern Eurnjom states have developed endless variatinns and combinatims of the systams abme described． In the（iemonth empire at the preant the（IS94）there are said to lw alomt 100 distinet systems．

Modern Ligisketion．－Inallmomern lagishations the law of matrimumial property is meroly subsidial？law，i，e．it takes －Thect only in the abinence of ante－muntial contract．In the corles of Mostrit ami［taly the law is substantially Roman． ＇lhe provisons of the frenela law repuesent a compromiso between the Koman and the Temonie systems．In the ab－ sence of any contract the Ciole Niepolen sulajects the wife＇s property to a system of partial commmaty（commonity of movables and icuplesta）hat it lass down peciat rules for a commmaty limitud to uequests，far complete or＂universal commmity，for complet suration of property，and for the dotal system：and it providos that the parties may alect any one of these systans by antomaptial contract－man－ lome they prefor to make wher amangemonts．The German draft come propuses a similar compromise；but in the ab－
 property in the alminist ration and uaffact of the hasband．

Thaler ：my systam of community the power of the mar－ ried woman to dispase of proprrty and to eonfract debts is of conare restrictorl．Frem maler the syom of separate property，the ahber contes imposed restrietions ujon the wife， bat the tembens of mostarn lexishation is to remove them． ＇flus（emman draft combregnires lhe consent of the hushand


As regavis the pernolal retations of hashand and wife，
 the has anml in mattors of common eommern．Ble deter－ minas the phace of restlonce，and＂xe＂pt in case of separa－ tion，of af desertion ol the wite by the hasband，her domi－ cile is mocesarily has．Ha has ususilly an action，not merely agamet hamb rerons，hat agratnet tho wife for＂restitu－ tinn ol＂oujngal rights＂：Int the temdancy of mondern legis－ bation is to exalobe the forcible exeration of a judennerat in his fばいか。
 1NTO）：（iale．Lat liot in Inoit homain（l＇aris，1872）：Volle－



 sis．

Musilue Smita．
Mariow \｛Lat，medulla：M．Eing．meron，mary \(<0\) ．ling．



 worm camals，and the hollows in enarolloms banc．In the fabiturs of lonor bouts of the adalt it is of the vellow or fiatty variaty，of which ！ 16 per rant，is fat ：ju the young shbject and in some of the bones of the atalt，it is of the
red and watery varioty，whind in almost withmat fat．The
 of the browl．nul therefore is momt abmalam in that tame of



 foetal combition．＂The reed warmeter of the marrow in there
 cachexia of eancer．and in uther eanditions．

\section*{lievinel bẹ゙ Whatay fernek．}






 mates on mane thans one vecasion ；servol on the Atrarition

 the eommand of a vessel in the（＇hathnel－quadrem，he bugan



 is gemerally ronalidered the forat．He was alon the athor of a Could of Stiguals for Iossels empleyed in the ．Herchant sire－







\section*{Rebisid by II．．．Blatre．}

Mars［Lat．，derivation disputmd，cf．form Mames perthaps


 tuan conceivel of wot only ats a mond of war athl strife，hut ation ats arend of mature＂opecially of the awakening yar，
 by the fact that itarill（Jurfios），the tirst momb of spring


 and birth．At a later time familiarity wath limek motho－






 in the month of Jateth，aml were performend veperially in
 and the＇liber on the marth．From the time of durnatun．



 su゙atr．


 of the earth，and tha fometh in urelur of diatame from the







































 natrent alihe lot that of the rarth：mor will the lionath of the Nartial sar upluar bery hofferent from what wo．engoty










sulellater of Mars．－In dug．，1－3．I＇mif．1lall．if the
















 1）．Mar．M1，1ヶた。



























 at tirm a madionan at beed and a member of the Wiwesan





 wher he was wedl moded he the matives．Maroden ond
 fersals：in time［ramad d the nativen to aden a a tiad form of eromemment．provile for the preparation of a drammar and dimanary of the Mani hartate and liven to－n the i．lamber womally＇hrietianized，and himedf to be revarted












 rathe and medale tothe britioh Masemm，and his orjemal
 \(6,1 \times 36\).
hericed by lexjo he Wheler．
Marseillame，matar sate：the grand anthem of the Fronch kevolution，componed，both worls and masic，in
 It wat calleal the warmot of the army of the Rhime＇The name Morseilltise win given it in l＇aris from the incorrect report that it hat marinatel at Marodles．



 The ald［att of the city consists matly of natrow，eroment． and even dirty struts，with a few vinums suares，and is separated from the new part，with its homh，shaght st reets and magnificent quass ahong the hators，hy an elogant
 at the northern entrano of the eite，to the Porte de Rome． whith to the Shats intot the lratu，the principal prome－ nata．The most demant part of the now eity is the＇ame－ bite，a stred ruming from the ahownentined avema to the old harber，and contahiner，handes several public binid－ ines，the most prominent hotels and the most brilliant shops． The liveliot amb mot whateristic burt of Marseilles is

 any ereat arditeretural morit ；the mond remathath ame the

 mint in the now town，hat the when aity preants a pic－ turacque a－n＂t．risime amplithotrabally armand the fay， and smmendel with hills．．antral with oliverrowes vine



 an werlhent medical sebent，weval free indastrial amb









 rats long．was ownd in was．still bume remply the

 buth forttiow．Fome lighthenses shaw the way int the

 chamel．

Mareeilles wan fommed in the sixth century 1s．C．We Pho－ （atans from diat Mmor．In the fourth entury B．c．it sent its trabers into the bahtid（ane Promas），and ham fonded



 thirwath to prowner ；in list it was mited to france．

 mongent by the lermeh of Aloria gave its commerce a


 and the（hio．lienk 1s．and liac：lialway；a miles Es of Ot－

 the city exellent water－power，wheh is milized in the man－ ufachure of dour．paper．aspoulthrat implements，and other

 （18910） 2.210.
 Ot．：3，1N61：A．B．，llarvart，1ss3：I＇rofesom of Enmlish，
 Assistant Professor of Comparative literature，Harvard， since 1s： 01 ：antan of artiches and reviews in americon
 stultes nem Xofes．ct＂．，and anoriat＂editor in charge of the Nepardment of forcign literatum in Johnson＇s l＇nicersal f＇ychputiot 1－2
 tist ：W．at Winulsterk，Vt．，Mar，15，1801；mraduated at Dart－ month conlore in 1800 ：studied law at Burlingtom，Vi．．and practiced at the har；was elected in 1835 a member of the
 philnlogy，and printed privately a translation of lask＇s Ictuntir（irmmar（1885）：was a member of Compress from ista to 184．When he was apminted minister resident at（＇onstantimple；went on a special mission to Grece in
 in 1sin4；pathishad in 1850 The fomel，his orgonizution， Habits，mid I＇ses，considered with lieferme to his Introduc－ tion into the l＂nited Stetes：sorved as railend commissianer in Virmund ajor－59；delivered in lasin course of thirty Lec－ tures on the Bhylish Lonquage（ m blished 1561）at Colum－ bia colleres，dew York．and in the wintar of 1860－61 a sec－ ond course on the same sulinet before tha lowell Institute at Bustum．The origin and Wistory of the lingtish Lan－ ghatge（pullished in 186i）：pmblished in \(1 \times 61\) a laremly an－ notilad dition of the first valume of Wedgwood＇s Etymot－ g！！．He ahom wrote Men and Sature（18th），which was re－ josind with improtant additions in \(1 \times i 4\) ，with the title The Euth as Mndifint by Mamen Action．Mr．Marsh was ap－ lninted in anif U，s．minister to Italy，a pest he retained till his death duly 24 ，1ses．A revised edition of his com－ plete works was published in 1885．IIS Life amb Letters， compiled to his whow，were fohlishom in lcis．He had an extomice libnary of scandinavia literature，part of whel betame the property of the laiversity of hrmont－－His secomd wif．，＂arolise（rane，that berkhey，Mass．，Dece． 1 ， 1816．pulsished in 1857 The Ihellig．or the sherptold in the Hetros transated from the deman of Biematski，with a thagraphial aktel of the authro and in 1 sitio a volume en－ tithel Wolfo of the haoll，and Other lowns．

 Ahhis college，＇ambriden：：studial theologe at the Univer－
 phats in German in defense of the war pelicy of England， which whand lima a porim from Pitt ：retumed to＇am－ Mridge it 179？and publishod a thanlation of Michacliss
 companied by an extomdel commontary－a work which first
 of the fomblere of the malarn show of derman eritioism，

 homme Lady Matrated l＇ofessor of Dunity at tambinge， and published an extembed course of Lectuens on the crith－
 sittilus chadly of a［womlarization of the views of（ierman shandirs．In int：he published a／history of the Tronsla－





 guistios． levimel ly 11. ．Jotar．










 hrates bave bern dimanerol，many of whiols riphotat bew

 Marsh in patere．and of whinh have alparond in the ． 1 mor



 first of threse on the ohbuturnithes，ar hims with tionh fat







 that wide matil wat．He in at forw of the cimbugat




 fr with lat．muriseralen，Span．meriseal，＂ote．from the



 tablef：wriginally the fromb whe hand charge of the hisery

 filled by moldeme the mar－hal：fusition twome one of


 ＂The whor is herealitary with the bukw of Norfolk．In

 knipht－marshals．Tha highent military tille in mow boum fran armion is marshad（fiedh－marahal．marochond de comp， Feld－merselenell．feddengmeistes）．This tille in uf hrwat desemt from fombal times，whon the gar－hal wo the hime
 imerase of his anthorty in the army aftera a time led on the




 municjpalities



























\section*{ \\ }








Eithon er "]






 （＂）



































\author{

}


 froforent lima at ramherr tall ！
H1，witloresh of the wir with U．




































































 waml mathmor, but mmst whial atml kimelly in privatu



\section*{Jobvind by dr. Sturaes dultex.}






 statue uf sir limbert lawe at banehester. that of demmer






Marwhall Arehipelame: a lares gromp of comal ivands







 jority of the hatter were sell led on the lamen of l'aluit on


 than - thportad ley the thin lisere of mill. Coprat in the only
 there inlands. DIakk W. Hankemoros.

\section*{Marshalliner: Sce llarabosky.}



 recion. and has a hith sthonl. is wat schouls. jublix library,

 parated bank wilh rajilat of sionotok, and a dally and 7 watily mow-papers. 'There are furniture pickle, vinegar,


 6,\(210 ;(18: 10) 8,914 ;(18: 4) 10,(144\).

EmTon of" "l'mis-lieplblacan."
Mar"shalsaldrisun: a prison in sonthwark, London;
 of the kine s marmal of tha homachohd. It was ogened by

 It was abulishen, with the aucient Marshalsea, in 1845 .

Marshllall: Lown: Cusco. Ore. (for location of county,


 reqion, ships large ruantities of comb an! lamber, and has amallablat wifolmilding intrents an! three wetkly news-


Marshfleld: city: Wiod co.. Wis. (for location of counts,
 and Oh.. tha Mil. Jake Sh. and W., the Port ElW.. C'ant. and No.. and the Wis. Cent. railwats; 160 miles Fi. by s. of St. Jianl. Dim,. 180 miles N. Wr. of Dilwanke. It cointains fi charches, high aboml. 3 ward monots, lomman ('atholic and
 tariam, a matiomal lank with capital of soto 000 . a state hank with cablat of Sos, iot, and 3 wenkly newspapers. The primeipal imhatries are the manofacture of pine and
 houdings, venorrs, and machinery. Nas:hfied was totally deatroyed hy fire in 1ssi. The great hartwoot-timberlambe of Wixernsin form the ehtef somber of the eity's 1rosprity. Pop. (1880) 666! ; (18.00) 3.430; (18! 5) 4.586.

\author{
Furtor or "Sbws."
}

Marsh-gas (from. sumpifots, grubugtes: Fr. gaz de marais): light earbmreted hyhrogen, metham, tire-damy; a
 at batidy of monditions. 'Ilae mame marsh-ras is given to it beramag it is formod in marshes. Wherever begetable mattor maldrentes decomyerition withont free ancess of air, as boder watcr, llo carbon and hỵdromen dombine to some axtont in the form of marsh-gras. 'Jhe gas seen arixing in bablow from a ["m! of starnant watur always contains the Eris, mixed eromorally with other gasts. It is foumd in the
 mons quantitios in stime cond mines. where it issues from




 of the explominns in exallmino. 'The explominn is cansen by combat with a hamm ur spart, whith sarts chematal ation

 grat axparion. 'fhe frolncts of the artion of oxyen on
 waller:
\[
\left.\left(1_{4}+40\right)=()_{2}+21_{2} n\right)
\]

Minds are well arobanimel whth the fact that after an ex-
 call it chokerdamp, whme whirh is mploded frequently to
 lampl has to shane xtent proteverl the minara from the ex











 and . Wrica is C'ircus rymeles.
 also salt-water marn-bern (hallas cerpelemes. mal for the

 ralists. See liall.

\section*{Mars Ilill: sce Ineopdita.}
 oficinalis, a hative of the (1hd Winhl, hat maturalized in the


 It ajpeats to hate midd dintetic virtues.





 lishod a lhisserfutmon on the rharucters ame thomads of the
 teriming the Griginal Tist. uth a Transhation (1411): ('la-


 jreparition of his Sumatit firammar and Brayalec and


\section*{}





 and sure throme, abl is luot proputed hy infuam.

\section*{}

Marsla Trelial : Ste liak licas.
Marsiliat: See lekswokts.




 is in a most rulimontary comblitime atul reperation bis a










 ated into the hatin proper and mednlla oblameata: the for-












































































 manabed rewpontuly loy Iond I










Four thensan! rosulinto wore killed. The result was the sur-
 made the ladfammatars cance trmmphant thronglent the north uf linsland.



 gevims. and all that be tomberd turned into art. With the
 mark has prondmed.






 here. 'Ithe batn bismall in compariman with the size of the
 coserting the whimeny lobes and cerebedlum. 'I lhe anterior commasurt is harg. and the hipposampal fisome continuted forsard ower the -mall morpas allosim. The bones of the skall remain onamata for a lung time or throushout life.
 ent-in the trany palate, and, except in Torsipudida, the ponturior anale if tho luwar jaw is hent inwarl. The nomber wf thractor-lumbar vertetore is alwas nincteen: the numbur of paids of rils usuably thirtect, 'The radins and ulna are proment amb the forearm is capable of rotation. The" pelvi-。in all marabials save Thylacinus, has moder-
 os-ification in the inmer tenduns of the external obligute man les.

The mumbers of the hime limbs in most the saltatorial
 that the herom lomems digitomom pedis " is inserted theshy




The terth atr pandiar in that there is only one perfect

 development) of the promatars in other respents the teroh

 of true matars \(4 \times\) ? 1 in math jaw.
 armulus ambis in the risht imricla; and in all it receses

The lisiner mar-uphat repreant two distinct types of font strutare-the "horisederotyons. in which the toes are all


 vinhla, atme wises the improsion al a simele tore with two claws.













 famaly l/wsondamyida


 "arreing its yomber mpon it batk, with thoir taile swomer




 Jomer matillia"

 with thear mothers ly a pacoma, by momas whe whey they


 in weitht: the organ are in a sery batiseloped combition,
 foge limbe are mone debebond than the hand one\% The mesbly born animal is takion by the mother with har lipes and iranslared to tha pentho where it matioctively grasis
 atro of the month growing aromml it, tat anamal romains


 al graping wan chaming to the nipple, it is. bowerer, at





 divalad strime on ather sule of the larrax to the enosthasus, Alter hatiag anmacel the charmoters of approxiHat" maturity. it hatere the teit and the pouch itself, but for shme tima alter mant- to the latter in (ase of danger, to te comperval by tha mother.

Altmiert the matompial are now combined to Aust ralasia
 thand broters) they lomerty inhatited every part of the mabe palamotologioally knomin, and remains of reprosentatives af the clasm rewered from tha Trias have beda reformed this order. Ify sme authoritios it is believed that thene forme bebong to distinct orters of mammats of primitive strmeture ame that marnmals did mot make their apfuramo until the arly Eoceme. In the Earene they are fevedoped in surval tybes, both in North Imerica and in Foron", and amoner thene were representatives of genera dasely related to the arasums of the present age. Although none of the marsupials of the pesent epoch can vie with the bargest fandatal mammals. in former times and as rocently, |rohathe, as the alrent of man, speres of gigntie size exWacol. the bipntodontids of Aastralasia having been nearly as large as war rhimocroses. Revised by Fi. A. lideas.

Mar'supites [from lat. marsupium, ponch, bas], or Tor'toise Encrinite: a gemos of the Crimolifer prentiar to the (menemos romes, remarkable lor having no stem or attachacut ; ins peris thas resembers a phated patach surromalal loy a direle uf tirnaras.
Mar'sus. lomitats: a Jioman lmat, contemporary with




 346-isk (1, "jpain, INoti).
N. "is"

Mar'syas (in (ir. Maporias): in (irem mythology, (1) originatly a l'hruian gol, who gabe his mant to the river
 lime with dthone amd \(A\) pollor le was demralod to the rank
 therew it away and anrsal it when she saw how distorted her
 Intu, amd berame san akllfat in phyiner it that he challonged
 Hame for juldes. 'lher lorision was in favor of Marsas.


 from whinh the datryas rivar thaw. Tha mylh was ntitized
 In excellont ropy of the darsyas that twonged to the
 dathran Xandma in Konme. It represents Marsyas in the



 Flonemor helongs. As he whets his knifu the bartarian















 whom wrote on the hiatory if Mamednhia: (of) Xarroyan of

 cetes: (b) Darswis of Jhilippi. Siq liftehn, /h, M/ersogis


\section*{}

\section*{Martel, Chames: see Conariz Martio.}

 neer who is sail thate find deximent them: or (e) from lal. marteflo, a hammer uad to arike a bull. berane they were used as watd-towers and were provided with alamitndes


 thick. The cellar and lower fone cathanamamation and




 dinia, and Combatad thring the Froneh wats athig the
 towers of harger size wore built hy the De-triano aboge the





 eral clacs.

\section*{Anyex Jemer.}

 1ate lat. martes has ben by many regimed an the nurce]:
 mals of the fanily Jhustofirs. In Surth Imericat i. fomm
 which prombere a very valuatle fore inforine in sathe th that of the lin-wats sable only. Ihe latter animal (3) zihellima) is caneth in silweris. "I'lip pine marton of Eurene (1/. murtes)



 the chas are lone and -harg, the tail bahy. "Their mose
 The mansupat ambenge of the martens is the - galtal mat-

















 found many almirers in Domark. Dir rmans, - Wentor, Hel-


 the is. he detimes this jromo... wht raveret the the lithe an





















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 for the phry

















 of \(\operatorname{lan}\).

















































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So hatimite roln tapably of "xach applation can he laid











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 matial law iat any part of the brition ratm whor for laws
 virtue of its malimitald power, mierht all it into oprationi.








 Lend (1andon): Dwos: Latio of the C'unstitution (1, implow):










bern sutisfathrily membmen for. The lamse-martion of
 "allo of hamas orat
in lowns. Tlameme are watronely bari

 "aiketlyalike inturth Moncto dienerally the form in ropiजhapers. "ith the riml Amaly parand atrimet the wall, and having a samall
 tarie elit ont of the Mhe in onder tuln rmit the ingrese mint
"raraso of the hirms. - mantines. hom-
 pertenl on a himb uf solid pedental. comIomal of mat, amd oftror cuntainiog nearly as math maTrial as wonla have made an whaty nest. Thu sumbmartin (cotile ripu-
 Nomtla Aucria in
 stoatler, bif adall valor, and lmides its

 lank am! shomber chaws womla! siom at firsl sight tobe utter-



 sambmartin hatchas sevmal lomons daring thay yar aml is bry magatoni-sometimm making its horrows so near toath her as to hone comb the bank in which they are situated. lievised hy li. A. Iocas.
Martin, Sinst': Bjshmp of 'Tiours ant palron saint of
 in Luwer Itharary of paran parents, his fotlece bejog a military tribume vinited the fagan sehonl of Pivia, early shownd an inclination to a momastic lifu, hut was compelleit by his father lo coller the army in his sixteonth yenr, mat
 voterans, ame be served muder ('motantime and Julian the Apostate. Hawine lets the many at the age of twont f , he

 farmi mush from the feracotions of the Arian party, which limatly expoblal him from the ornmby. Onco more be went




 he was made a sumt, amblain fintival atpontord on his death-
 In scotland this day martis the wintre torm (D/ertimmas),


 in livance. It arom froman ulal story that at at great festi-
 tw the bishup, in orter that low mirht roweve it from his hamd. The tratime I'rofessio Pridet de sumela Trinatule.

 (Lamlom. iss:
livineal ly S. M. Darkson.

 the first Iatoran ('ommel, which mel on (blt. 5, Bide, and Whicl athirmed the doctrime of two wills abl armations in
 uf tha dhetrince combemmed by the comamil: consequmaty he

 emperor．Ihe was crmily tratiol，bumbiof to therwh，is















 the reform mavements beran at the cinamil of formence He heaked the diwsins of the chareh，revorent the hamin－
 the canco of leamines．In carrsimer ont thender－at Com－

 1.131.



 has bern assistant in the lerlin equareforioal clinio，and
 able reports of his ongrative made．Aboner his work are

 Lejpzig，1ssi）．

 historical moseds athl amats．hat turted som to at man seroms and thoroughening（rathent of histors．Wf his Mistwire de trome there are there dituremt oditions：whe










 1）．W＂e．14，1ss；






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 sion the warious usis for the ruhber hambare，and in si－















\section*{}





























































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 fur fratat：





















 The＇himar：their Lidmution，Ihilosoghy amd Laphrs






 of treatices un Intomutionul Late．Wheratons（1sti）－6if），






 city is built on a hill mear the sumper of the＇lara．＇lhe
 sume：the dhatal palame is whe of the mon magniticemt in

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 is a work of groat vilut．Nar！in da Mondesy weote varions


 It：kuste ll．Surti．

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 father was a manmfactarer of humimzincs，in humbla cir－

 ward in lisuruen in Ilope vhapel．While in liverpool in


 neaty themes wrim－The Bithe．The lority of Christ，I－
 ＂hristimaty withont Irizat and withonel lilual．All the beture ware fulli－land．The limfionete of lifigious fa－




 Americen［＂nitarian ．Inanciation：two vohunds of fisiogys，

 varions Fonglah periondials．The Westminster，frospective，

 Metaphysical Philoaphy in Manchoster Now College，Ion－ don，whither he went in live．Mnd in less assumed joint ［avorship with ．f．T．Tayler of the lonarian chapel in little Portame strect，of which，＂th the doath of Mr：Tayler，he became solu incumbant．He has been distinguished as the defender of spiritual fitith agatinst the different sehools of atheism，materialism，and shatiomon，taking sharp issue with
 the interest of any elorma．crove，or（＇lurels，but in the in－ terest of the moral and－pirithal mature of math．whe his he－ ligiem und Jodern Ihuterulisu．New York，1si4．）Thackeray called him the groatost thendgeian in faglama．Ill－healh compelled br．Martiment in leosist from preaching．The Boston magazine（hid atal Niom（1sit）contained able articles in criticism from his pen．He is the antlor of Types of
 and（onfonts（1ss）：and The Seal of Authority in Religion （1800）．Jlis Eswey，lifoimus and Admerses were published in four volumes in 1s：0日－ 11 ．In staty of spinoza is an extremely unswablatic stan！of that great philosopher． Ihis critionl omelusions．whinh are extremely radical，hase dume maclito qualify the abmiration which his philosophical conclusions have excited in conservative minds．sinee the dath of Cardinal Newman br．Hartinem has beent the
 thomerht．

Revised by J．W．C＇madmick．
Marinez：lown：＇apital of（＇ontra Costa co．（and．（for lucation of comaty，se map of（＇alifornia，ref． \(7-C\) ）：on Car－

 san Frandiso．It is in a rich prain，inat，and fruit region， hace a doliohtfal and maform relimate．and contanims 5 churehas，granded［ublie shoml，nom？wakly newspaters．





BHTOR O！＂＂UNTRA Custa（iazkrte，＂
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 when he bwonno a coldnel in tha conservative forers．As


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 Mar．1：18．3．







 ly ham and lien. Jowellay paved the way to the a manioll of Alfonse Xll, aml the dimal downfall of the ('athas was








 and commandol the army ant neame the latts in 1-9.9.
 cajtaitngeneral of C"uba.


\section*{Marlinez de Irala, fomencio: sie Iraba.}
 casco: statoman and writer: 1. at dimanda, ghan, Mar,
 bectune Profesore of D'hilowphy at limanda an isos: Bat


 the Cortes emplayed him for at time an an andat in homblon. There hearing of the hernio deferne of Saratomat, he wote his "phe Zoregoza. In limghat, however, he Ineman a believer in contitutionalism, and anemolingly. after the me
 then seme to the paral arthement domera, on the comat of Alrica. Here he wrone his tratedy Jomymar. After the


 obliged to go inte exile. livine for at ammor of years in

 of the momerate party. Fiom this time on lue was mognized as the chicf repreantative of constitutiomation in

 coming prevident of the smate in 1sob. Whring all these years he hand hern writine muht, alwas latenly umber the

 pañol en lenecio nand ha hige on caws y la mudre on lo



 lations, hat raslly only a rewnekine if 'Thins's Ilistoire de






A. R. Miren.

Martinez de Rezas, - datrithas, Itos: 'hilian matriot: b, at Menduat (now in Argontima), 1859. Ha gralmated at the University of Cimdoba, tanght in Chili, beht warion onti-


 that time hat little sympathy with the moth: Hy dionntinating remblican indas la prepared the way for the powhtion. In Isum lagas was apmontal sur patary of the raptangemeral, Carman, a wak man what lite was marh mander


 Rugas berme a member of the firot p"palar juntas sam. 1s.





























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 Thern taken up. Much of the - thear in proparal in montrad































 The sidnity ponlint muth whot. corn, aind aras. Jop.
















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 edited the lime whane of the grat fome betailionses．


 thon per mate to the ethangaghy of hrazil．His minor








\section*{Harbert 11．smith．}

\section*{Martius Yellew：So Namomadea Chlors．}

Mar＇tus：town：in the prowne of fam．Spain； 16 mites



 rew，and itspublic halding are erommondace．The sur－ rambine distriets problece an exedlent dil，the principal article of conamere of the lawn．Pap，abont 14．zot．

Martyn．Haxis，R．le：miwimary；b，at Tram，Come











 tamment into Arabs．H．Masanthor uf contronersiel Tracts

 ly live．Jhat surwnt（ \(1 \times 1\) ： 1 ），oftom reminted，and life bes Georg smith（15！！）




 maty













churches callend martyria，ur memeric．eath mamed after the saint tmriod bemoth it．There his festival was hept barly．hie＂ate＂＂orw rand，payer were atherd．the




 （t）Enderate thent．As the das：of martyrdom were left
 conserts andowd them as they had shared the heroes of


 fol with（ind．Marts formerly unheard of anowned


All wherge and fome of whigint hase had the mar－
 hod the fant wo their andont belief：Mohammedans have diod calmy for their prophet：Budhist missimarics have fillen vidims to thoir zeal：Roman Catholies have forned I＇phestanto．who．what their day of power came，retaliated． The wod mortyr is often aphlind to those who lose life or wealth in sobontifie resuarch．It is used to denote imocent sumperers from almost any cense，and has also heen atfixed to ther mane of kinge who underwent the last matey for mis－

 tyreser Foxe，Roela of Martyrs．Livined bys．M．Jacksos．

Martyr，letere：Ace Animera，Piftro Mabtike，de： also Vemmial，Jietko \akthe：。

Marlyrolugy｜from Lat，murtyrologhum \(=\) Gr．\(\mu\) aptupo－

 denenon the list of martyrs who have suffered for the Claris－
 it signitios nom of the official litargicoll hooks of the Roman
 of martyrs，hat many sants likewion．We know from the Episthe of the thure th of smyma the the death of st．Poly－ （arp，the lollors of st．Cgrians，the Liber Pontiticalis，and wher smmes，that the early（harch liegt aceurate lists of thase whodien fur Clirist and iedemated yanty feats in their homer．Buring the promation of biodetian the Aets of the lartyre whe in great meande deatrede partly by the pagamis barlly hy the ats of the Chriotians who gave
 sought firs．Ha the fallewing perion of pare the charehes someht tor retore their anciont lists，the mot always with sumeres．Thoy deporded on the remants of their archives， busmal reallectans，and lowal tratitions．The dadine

 cult mode and in the comrep of time mueh that was trgend－ ary or butuat withy was acepted as truth．This．how－ eser，is ditherent from a proere of whenale fabrication of atts．ete．．．of whieh there is matree in Chath history． ＇The mast reliahbe acomats of the precomanatinan mar－ tradoms are to be found in the smath whane of kuinart
 are most anily fomil in the Acfa standerum of the bolland－ int．The ohdowt extant oriontal matymong is found in the well－komen Xitriat manareripts published by Wright


 the half of the tifth contary mit of the wrat conleetion（now
 In it－frame form，it hatis trate of adatation to the Gat－ lio conlociantioul life of the sixthe century．la the eighth and binth comatios speral other matymbice made their ap－



 frofare．Sie dn smedt，hatrohutpogm molis od historiam



 in thas Latin serverarysip．Hewas for many sars member
 of tiberty beth moter the（＇ommenmonth and after the Res－





 are tha sioney of the Vinglish fiates on Bermulie Mat tho






 the state through whill rum the liajputam liailway. 'lh




 Fstat, wed] known thromert ald Himblatath. Xiatly all art Hind!





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 there jublinhed the Jroe Shatixishe Zotumg, Dut has rewo-







 workingmen in landon he land the fommation of the lvate










 in one form or amother in the writime uf mumbern -abliol-




































 -ile 31 !




















































1. Jarilly bo. -atry in :al.| ina







\footnotetext{

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 whirh suds at mion mish haw for the chilhern of Ame
 aderige that how mothers marriate was therab athel her own
 riath th the surns-inn. In the lat bats of the reven of


 half-trother, Edwand II.. she liwed in memment and took for part in folitio: the ditemon witurs to her hand were




 and be Panare. It wat not matil aftor her matiage with
 thane ferment ind against the Protetant hegan which have made her mande so mone in the hiotory of Englaml. She

 take ahe matho on the oratiom of an attatk of dropse exen subjered her to areat mortitiontions. Hercharacter, by m-
 for the wore under the induenere, ant she giedded willingIf to the ramede of Philip abd Gardiners On Now: 30 , 1-6. ('artinal Pode dectared England and home recon-

 and ware followe by wo or sho mave and the rain of the comenty seemed impending, when in the simmer of 1 gis the qued was attacked by ant internattent ferer, of which she
 her " mbaphent of grens and wives and women."

Mary 11.: Quen of (ireat Britain; b. Apr. 30. 16f:

 the Prime uf Urater (King William 11l), with whom she wa* deolared joint suremizn in 16at. She died of smallyox


Mary horoush: an impritant pert of Quefnsland, Ance tralia; \(1+1\) mates N. of Brianate on the Mary rawe at its
 raba, raf. is-alo it is the temminas of the ratway to
 tho atricultural districts of When Way and Burnot, and lor
 bery. It hat merall refineries, distillories, sambills, ath irm-fomulries. Pop. (1-91) s, ino.
M. W. II.

Maryand: one of the L. S. of Nouth America simath Athentic group): the first of the thirten original shates


 ley Penncyania, on the E. We Whate and the Atantio Gean, on the s. atrals. W. he Virginia, and on the W: We

 few miles ril its merthern lamburs. dividing the state into


Topuaraphy. -Tha thew groat tomeraphan areas into


 lomes that part of the state which lice to the le of a lime pa-ing throngh Batimure and Wishington. It includes the whale Eisomern shere and part of the Wianom, ami alanut half the fand atrat of the state. E. if tho
hay thit regim is very flat, hat on the \(W\). it is more rolling.

 3.5(1) som. mides, and is brohnen into series of madulatiog

hills, increasing in height wealward. The Ampalachian Region bexins at the Catuetin Monntains, and extends to the Westom homblary of the state having an area of over 2,000 sq. miles. It may lre divided into three districts- the castern (bla, Redge ind great rallev) the central (Appabachian Momatans) am the wnetorn (Iherhany Momanins). These monutains all lie in pathel ranges, with depp valleys between, and the height rises in phees th over 3,000 fect. Mary hand ha bo gond harbor on the Athantic eoast, but the cnasi-line of ("hesipeak. Bay is deeply intented with larger and smatler otuarmond cores, giving a multitude of harburs suitable for vesele of lipht draught, and affording, with the rivers ruming into these mosual facilities for water transintation. of the momemos islands in the bay Kent ishal in the largest. Along the oedan frontier runs a reff of sand, inclowing and shelering Syopusent and Chineo-
 The risers of Maryam are on the Western Shore, the Potomac, latuxabt, Patapen, Gunjuwier, and Susquehana: and on the Kastern, the Elk, Bussafras, Chester, Choptank. Nanticoke, Wieomioo, and Pocomoke, besides a number of estuatios tharing the hames of rivers. These ald empty into Chesapake liay. To the IV. of the enntral watershed the Momocaey, Antiotan, and Yughingheny thow into the Potnmate. The weotern pat of the state is traversed in a northcast and southwest direetion by the Cituetin, Blue Ridge. Appathechian, and Alleghany Montains.
 contains a remarkatly compleserpence of all the geological farmations, not merely of the sreat eras, but of the subordinate perimb. In Western Maryand are fonnd the Silmian, bemoman, and ('arlwhifurons series; in the Piedmont Patan, granite, marbla, gness. hasalt, and other igmenus and metamophosen rocks; and in the Coastal Plain, the sads. clays, and priwels of more recent eqoels. The mineral problets are tom manerons to specify, but of those fusersing industrial value she las irom, eoper, antimony. lead, \%inc. gold, and chrome; coal; building and Wererative stomes in great waridy; granite, sabdotone, marbe, ani limentone: Drick, potter's, and porchan clays; sand, sompatume and hydraulic cement. The semi-hitmminons conl of the Comberlimh hasin is noted for its stam-generating qualities and is the lmas of one of the most important inhustries in the State. the fotal output in 18: he being \(3,063,909\) tons. 'The irn ores are chielly homate and marmetite.
shid and Produrtions.-In the arlier history of the State tobacen. Whent, and maize were almost the sole crops. Of late years ationdural wimditinas lave been much modified, and while these still moman mate problucta, they no longer had an exelonse baition. The emancigation of the slaves, lealing to the smbisi-ion of large estatos, the growth of citios, the extemion of stam trambertation, and other caums have mate a thorgug culivation of smaller areas the most profitable kind of farming, and particularly favored the inerease of market-gardeniog and truck-farming, to whinh the lighter soils are expecially adament. Westera Maryland has fine grass and wheat lands, and has developed an fanmernat inthatry in its extonsive peach-orchards


Northern Central Marymad has soils well suited to grass， whent，and maize．Dary－farming is an impertat imdntry， and much livestock is raised．Sombern Marshad has a soil for the ment part tow light for gras anf what，but excellent for early froits and wertabios and this induntry is rapidy extoming．Thbaro，thongh heocentivated than formerly，remans astaple erop in thas section．The finet ern shore has pood corn and whent anils，and whers suited to fruits and vegetables，of which feaches and tomaters are the most important．

The following summary frem the cernus rejurta of lam and 1860 shows the exterit of farm＂pration in the state：
\begin{tabular}{|c|c|c|c|}
\hline Fathis，fetc． & 1880. & 15180. & Perceor． \\
\hline Tueat number of far & （6， 517 & 10．74 & －＂： \\
\hline Total acrage uf farmas． & 0．11：1－11 &  & ＋33 \\
\hline Total value of furms & SH20，043， 31 & Stroumisut & － 34 \\
\hline
\end{tabular}

The following tabla hows tha nereage sidh，and valu． of the principal erope in the calendar sear iso3：
\begin{tabular}{|c|c|c|c|}
\hline crues． & Acrase． & Yient． & Value． \\
\hline Corn & Pis，min & 15，150．0．ju bush． & Sti，64， 117 \\
\hline Wheat． & 40， \(0^{1}\) &  & S．Jns，fit \\
\hline Ont： & ：11． \(1 \times \mathrm{x}\) & 1，36以！ & 6ivert！ \\
\hline Rye & 20，03： & 30410！\({ }^{\text {a }}\) & 1！10．630， \\
\hline Buckwheat & －314 & vi，tis，\({ }^{\text {a }}\) & 51．2is \\
\hline Tobateo． & 15，吅 &  & Tras，034 \\
\hline Potatoes． & 皆， 121 &  & ＊6，029 \\
\hline Hay ．．．．．．． &  &  & \(6,025.123\) \\
\hline Totals & 1，64\％．42\％ & & S（b）3：38，8i2 \\
\hline
\end{tabular}

On Jen．1，1s：4，the farm amimah amprised 1：36．359

 cattle，value


Climate．－The climate is midd．the chind difterenees being due to elevation．So pirt of the state is wathent some snowfall in the winter．The average temperatures of the four climatic divisions of the state are：

MEAN TEVIEANTIRE WF FFMOMS．
\begin{tabular}{|c|c|c|c|c|}
\hline SEA－OSS． & \[
\begin{aligned}
& \text { Fastern } \\
& \text { Maryiacu. }
\end{aligned}
\] & \[
\begin{aligned}
& \text { Suthliern } \\
& \text { Malyland. }
\end{aligned}
\] & \begin{tabular}{l}
vortiern \\
Central \\
Marydans．
\end{tabular} & \[
\begin{aligned}
& \text { Wetlorn } \\
& \text { Siarslasd. }
\end{aligned}
\] \\
\hline Spring & 11 \(1^{\circ}\) & 碞10 & \(5{ }^{3} 8\) & \(494^{\circ}\) \\
\hline Summe & －1： & \％ 5 & 735 & 7： 7 \\
\hline Alltumn & Sis & 5 & 64： & 吅： \\
\hline Winter & 311 & \(30:\) & 331 & \(31 \%\) \\
\hline Year & 515 & sio & ：310 & 吅 1 \\
\hline & & Squefin & & Wretere \\
\hline arstus． & Marstand． & Maryland． & \[
\begin{gathered}
\text { Cenlral } \\
\text { Marylabil. }
\end{gathered}
\] & Margiand． \\
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 whit baltimom（ounty）clects（me semator for a term of four years．＇The delegates are deeted by the counties and rity in jwpurtion tw permations the biver representation
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 at torm of fiftern years．Maryland is divided into six con－ urestional di－trist of which two are witirely and wo partly whan Baltanore city．The U．S．Somators are chosen liy the Latinture，，me inemg alwas takill from the bastern ant ume from the Western shore．In julities the Demo－ aratie party is predominat，having a majority not only in the Stald at lage，hat（1894）in anh eomgresermal distriet．

Mistorty．－The fomblation of Maryban is primarily due to（riomeri Calvert，first Baton of batimore．Whe had al－ rady sethed a colony in Newfomblame，but the rigor of the illmate and sterility of the seil determined him to ark of kime charles 1 ．a grant uf turritory N ．of the \(\mathrm{l}^{2} \mathrm{o}\)－ thmar．which hal been within the juristicion of the Vir－ finia Company before the abrogation of its charter，but no part of whill had beon grantel to any settlers．Cabvert＇s
 urat sual lac died，and it was marle ont（163？）in the mane if his dom an，Cecilins，who mamed the powince Mary－ laml in home of the freen．The privileges conferred ly hais chater were mushat．The propiomy was invested with all regal righto cwer the soil ant inhatitants，subject only th the bominal warly rent of two lmbian arrows．Ito apminted all whicers，fivil and military，made war and
 by ito own laws，math by the feremen or their representa－ tives，and contirmed hy the perpictary，and was entirely independent of ladiament．The king rementeed for him－ silf am！his suceremers all rights of taxation．Thus of all the colonies Maryland wis the most indepondent and an－ tombuns．As Ceroilius（tavert was a liman Catholic，it wan his intomen to maki ，harymal a refuge for those of

 twonty gent iomen and ahat 200 workingmen ath servants， in \(t\) wis wosds，the Drk and these，mater the govermment of





 Mantion a crase．They then hought fom the latians a tract of ham on the l＇olumac，amd hail nat atown which they rallod st．Marys．The misumaries who land aceompanied them begatn thir habrs among the ladians，whe were uni－ formly Triondy，and malily conhamed chrintanity，their
 （Chetian rite and lringing his lithle daumher to be equ－ atal at St．Marys．The comins of the new colonists
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W．J．Sthmmas．

\section*{Mas－a－fineral ：Sue oldan Peraindez．}

Masal＇skio．Kossymate Pemovicu：anthor；b．in Jaro－ sha，labsia，in the your 1802：statiot at the University of st．Pederoharge and was in the Govermment service until 1842．In woithe first began to send short porms to the nuwspapers．In last he puhlinher a novel in verser．Terpi

 ever，as a writur of himorical nowle，among the best known of whill ar．The Sitrolisi．The Iluck Trunh，The Regency of Jieron．The sioge of lylimh．The Ifasian Icarns．and The P＇irst hone of the lates of a liure．In 1s．3s he published a trambithon of iom equicote．An mition of the works be
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\section*{Masolinu da Panicalde: se Pasicath:}



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Manon (ieonge: a patriot of the American Revolation;
 sothlad ather liv matriane in 'louro parish (which includes It. Vepond, buit Gumston lall on the banks of the l'otomate and herame the intimate friend of wiashington, his nojghbor ambldow parishoner at Pohiok chureh. PossessBng considerable hisorical koowledge and legal atamments, as well as bheral sentiments, fine puwers of reasoning, and a sommd judgment, Masom was a valuable adviser to the future leader uf the Revolution, for whom he drafted the - non-impertation resthlations" which the fatter presentad to the Virginia Asembly, am? procural their adoption 1760. One of these resolntions pledged the Virginia junters to purblabe monaces imported after Now. 1 of that rear. In
 son printed a pamphlet entithed Exhoch from the Virginia ('hatless wilh some limorks upon them, asnd at a meeting of the peophe of Filifix. July 18, 17t. he presented a series of twouls-fone rashations on the questions at issue between Great liritain and the colonides, which were sanctioned by
 tirmed by the (bontinontal Complesa in () Cobler of the same year. In 175 F he was amember of the Virgina convention, ileclimed an eloetion to the Cuntinental ('ongress which was pressed nom him, nominated Franejs lightfont Lee in his phate, and relnctanty consented to sorve as a member of the commattor of safoty. In May, 17:6, he tratted the cele
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 was appointed major of (lue Connertient force- retaminer






 Miog., 别 arrion, wil. iti.
 Manon): Palpit aratur: b, in Now York eity, Mare 19, 1ran:
 his father, fixt dahn Manm, 11. W., and hater in the I niver-


 Jogical seminars, whith he tantht himalf: in wat he
 eontributar: in 1-10 he raciund his charue and formed a




 his charge. From laglet he wa proment of bickimom
 lations to the J'menterian 'hureh. H. Petmoned to Naw








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Siarramental (ommunion an finthatir l'ranciples (]nlb



 \(1 \times 0,0\)



















 ont the continght and in derat bitan the latoot methents





 that inethution far a munher of bare las whele life has


 atmonectal matrial of the smithomian Invitution and




 the smithominn latitution. Ther amone them are the



 mo, Woman's Hiorle on sommery. "reallos of the Jorth

 work on the frimitive induatro









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\section*{}















and Tonche and Technic（J－in，in conmection with W゙illiam

























 of 12 milas from the amorthonne at Now（＇astle form the



 formad the burthorn limit．the same toconstitute the western






















 ＂गrasite sulus with the ：ams of the lame prommons．＇The







 titm the work of Ma－m and Dixun，and Martand gatmal


















Mason City：city；capital uf（erro Gerdo ro．la．（for foration of cotaty，sece map of lowa，ref．シ－11）：folla la．







 5.928.


\section*{Masonry：a fratermal institution，existing in some form} and to anme rifent in marly every civilized country．＇Ihose renking almiswion into it mast be free men，and mast be aroppocl with matantinl manimity；luence its members
 ＂iremmanme the institution is frequently called＂Freema－ suly．
（Hieyen．－1t is of anciont origin，so aneient that the time and place of jts birth are unknown．Its legends say that it Was wramiand at the buildine of the temple by Solomon ：
 no longer romfonmi its lewends with its history．That its urigin is unknown is shown ly the fact that almost every wher has fonme for it a souree dilforent from that found ly any of his follows：it has hern ascribed to the Druids， ti tho knights＂lomplar，and to J＇ythagoras；and it has not evon［reajod the modern fat of attributing almost uroryliner to the fertile ernins and more fertile gen of Sir Francia bitom！With emmbilerable show of argument some writers tram it to the amisht mosterios especially the Fhemsinam），others th the Exoms．others to the Roman folleges amd still oflars to the coldees．Within the past gemeration subuesd traces of Masomry have been found in The lloly dand，un the beyptinn obrdisks，and in the pyra－ mins；jubled，it has been st remonsly chamed in respect to the latter that the evilence fonme in their form，method of constraction，mul other particulars conelasively shows that fhey wore built by masons from whom the present society hass duat model．Within fifty yairs a writer has demon－ stmater，to his own satisfationin at least，that the present system of masonry is difeetly attributatle to the German stonechllers who fiomrished from as early as 1450 down to comprantively a modern hate．Bat when all is said，it still womains afot that the exdence in suphort of these clams ronts wholly unn the dicovery ol characteristics，emblems， swmbals，forms，ceremonies，and laws common－and in some ＂ians to s very remarkable degree－to these ancient organi－ zathons amd to Masonry ；bat while this evidence establishes the pessathitityon the tinth of the theory which it is adruced to：sillurrt，it attorly fals to establish the certainty of that thary．＇Ghow who womal parsue the examination of this mattry bond the limits of an attiche of his character are roldrual to the able and cxhanative lisenssion of it in The Mistory of Fremmasomry，by lidnort Froke Gould．

The thory that Manory is an onterowth of medieval
 tumal ambextorial evidoner．The marniticent eathedrals
 the（f）se of the fifteenth bire，in many if not in all cases， tho prolnothon of workmon united in organizations of a ＂harander fomedis similar，in most materinl respects，to the Jamonic orqumizations．＇lhar tradion of the society，from the armied limes，is that wrimally it was an operative in－ stitmina．It incoptan that whem momatievin died oat in linglaml maliaral arohitnetme wont with it．Whent the haiddine of＂hamehe crased tha haidars ocenpution was

 lan frol into devat，and for the thoory that some of its


 moral．faloraal，amb chariable primejus which had char－ anturizal the olatoramization．＂lhe prant lorm of organ－ izalion was adopoel in 1717．from which data tha socjety

 ry．and for that reash it has bern all the more dillicult to




to the time when they were written, but as ono of them is dated bece at, lises, it hows the eximonce of an organization at dat date which was mot a buw onf. Sime of thea. are entitled The (onsthtution of Mesomry and sumb The
 mate a Maton, but previously the that dat. all the widane of its existemer in Enfland is fomm in these old merges

 has a record eontimous, save on brate of her than wenty
 can toot be resited that at a wery ardy date there exined

 which they practiced" Mannry." or " Premanomy ": and it is equatly certain that the ir apration chatacter grathatly
 and thus came into existane the Mannic institution of to-lay.

Form of Gomernment.-The primary onemization is the loolge, with master, wardens, and other ollicers, origimaldy a master cathed the brethren together at his plasure, and the assembly was called a lodge; bat it was ant till ahatat
 There is a rlispote in whation to the character of the sensermment previnusly to that date, but the evidenco, teend hy the rules which himan experionce has establinhed. proves that before 17ti a grandmater geverned the fraturnity. whieh theoretically met annaly in "qenerad ascombly" ". cloose a grand-mator and make law for the eraft. It is true that in the deay of Manomry in the geare immediately preceding 1717 the general asembly whe mot rat larly held, and hasinry came near ceane to exist. Dat on
 bers of four lompes, mat in general asembly, rhowe at grandmaster, and male etanmes of an exceedimaty impratant nature in the form of gevermant of the instilution. The character of the lodges wasentirely changed ; theretofure they were merely temporary bodies withont lixed mombernhip. called together at the will of the mater, but it waw then enacted that in the future no lodpe cond exist withme a charter or warrant from the prand lodge or the grand-master. The result of this was that longes became permanent bodies with a fixed membership, with requar othecte, and a preseribed phate of meeting. In place of the general assembly provivion was made for a graml lodme, composed of the grand otheers (and later eertain past prand oflecers) and the masters and wardens of the particular lodges. The grand botge was thas mate the sulreme legislative, julicial. and
 must be croated by and bold its existence at the phature of, the grand lolse, "for the members of the gramil lowige are" truly the reprentatives of all the fraternity." (Amderon"s Constitutions. 12iss.) Scothul and Ireland adnpted the sume sysem later. Lolpeswere in existence upan the Continent, but they eotablished a different system of gavernment. In a few juristictions this other system is mot revegnized as Masmic, but it is diflicult to perceive how the fome dodges had the right to preseribe the form of Masmic ensernment for the whole Masmic worla, or why the Frandel benges had mot an equal right to establish a ditfermenterten. provided the fumbmental primeiples and lambarks of Ma-
 landat differem times, but one after atmother unital with the grand lodge formed in 171i, although it was not till \(1 \times 13\) that one of throm was merged in it.

The American lowolntion was the canse of the affirmation for the tirst time of a principle prowing gut of the laws and usages of Masonry. In baghanel. Scotham, mad Irelamd there then existed independent prand huper for than sore eral countries, the feere of andinther. Each of them hat establinwed losges in the L'. S. Whediene to the law of one's country was then, as now, a law of Dasumy. it was generaly held in the U. S. that allegiance to the Manomio
 with his duty to the gevernment of his own cumbry. The Amerian liodpus, therefore, look atops to form gramd lodges of their own. This chain was at firs resistet. bat it thas now become settled Masonio law that the majority of the lodges in a polition ilivinios. Poseswing the roght of self-government. net lese than three in mumbre have the inherent right to form a gramil lompo for sum polition division; this doctrine has hern appled th the states nom organized l'erritories of the Ameriean l'nion, as well he w the

Distriet of Cohumbin, and tha several damaleman of the Britinh crewn. The consedpume hat hern that the djar-

 whole world, hav hera werthenwe ant merre than siaty










 whon the "necerary lawn of mations" "hat 1- the haws growing dat of matural jution) are in an full form an batween civit nations. fin the case of the Veritah grame Jonges there is at shigh but mecosary ghalifination of this
 bone territary; bat in the depentherim of the crown, in



 master, as the hy-hws provide : they mat he itmalled before matring ujen their dutios amil hidethere antil their
 right to dhane a pooxy to represent it in the grand lolge in the aberene of the mantre atd wartens.

 "lhe same rule an to installation and tenare of ollice prevails in the grand heng av in the loder.
 grand lofges to aid in andmatering the affais of the craft, in "onsendere of the large mombry of latges and the extent of the territury owe wheh thay are sattered. At their head is a provincial or dintrot phamb-mater ajoninted by the gramb-master under the wherity of the erama lomge: these oflerers and haties have the powers and dut tes specitieally defined in the constutution.
Althumb the promention ha* in reenat time hern dunied by some, it is generally hell that there are fowern inherent in the oftice of grani-manery of which be can ant be deprived; anong thes fowers is that of diynding with anme of the jrovisions of the law in cases in which atherrane to it would, in his julgment, be subversise of the merests of the craft.


 lar braneh, while the lertatnent member are the wate of the erder: the later prownaty athl in then catomathally. have man jeramal antition theratif: they have hat a bare
 mont- aching turether in the same lonly, notesarily inflaene ench wher withnt any of the jealonmen invarathy

 rent. Agan, the promanot members are of the utmon im-

 while errore in the lattor are math mare danty corrected than in the former. It in beliowed that its form of ansernment has enmeribated hargely to tis womderful fromerny durimer ha, hat half eemtary.

Jites.-'lhus far this sketoh has berg ennfued to what is
 But there are other limjew of this rata and wher retes. At


 whinh haw hath wery extonsoly cultivate



























 in thi conime are oblardinate that eram commambery in



 the neranon of the gathering the the of a sery hare pro-




 twomy-mine from the finth to the thirts-second inelunive. 1t haveran and ohe dure-the thity-third. While the

 throughat the werfl than that of the Cork kite. In many juriandions, in whith the lork hite does mut exist, its
 and batere longex to confer them. The gewerning buty is a supreme commeil of the thirty-thirt degree. whese members hatw alife temare ; it ande enofers the thity-third de-
 it - memherhip. 'lhe may lie one supreme comed in cach nation, hut in the U. S. (wro-nhe in the North and whe in the - math. Thare are wenty three supreme cameils in the wort ratenized at revular: The supreme Conneil of the




 of that rite in the \(1^{\circ}\). S. and ohner comatres which ate held

 of the Yath linte.
frimetes. - The farmon fumbument prine iphe of
 asephane of a lowk of the haw as a revelation of his will. Attempe have bern mate to sulatitute a "reative prinempe" for (iml. hhe Crater, Ruler, and Fiather; but in



 the membre of it enodience. "The fumdanentalprinciple
 of man" is and ther furm in whieh the same inta hat- been




 "oblige then to that relicion wh wholl men atre", hav-

 atheint. ar imeliginus haterin.









haman heing has a clatim upon your kimd offices. So that
 Gumand it mare esperially to the Thusehold of the faithThl." The Masm is ulac lausht that his duties to the inthation and the fraternity du mot condiet with, hat are

 Is low, reficf, and truth; that that its "eardinal virtues" are tomprance. fortude, probere, and justice. He is
 chizen, dowernlly bo conform to the hass." and "to pay
 Pre ordathly. and and lomoratly hy ath men." Tosum up, Bammry takes the law of (ind as the "rale and guide" of it: urorks as well as of it foth.
It :homb he adided that Mashiry teathes most impressively the immortality of the somb, and the resurrection to a future lif, "in that celestial holee atove where the supreme Architent of the lairere praden."

Lutus-The haw of Manomyare larem derived from the andint usages of the eraft; in its early days nothing was commitled to writing and natually erery one followed the pratice which he hat seen others fohlow as a result, usage ultimately treame law ; but andier result followed-that mothing was law that was not in accodance with ancient usar. and, as a consecpurne, that the law was unchangeable. It has beemue a maxim that "no man or body of men can make immontions in the bedy of Masonry," These numbugeable laws are termed hamlimarks. While grand hentses are the supreme governing benlies in their respective jurisidions, they are subject to these hass. So absolute are they that if a governing body attempts to change them, it merely puts itself outside of the pale of Masonry. In all matters not controfled by the landmarks each grand lodge has fall puwer of hecishation. So we have three sources of Masonic law: (1) 'The ancient usages of the craft ; ( \({ }^{(2)}\) grandloplge legishation: (3) by-laws of loderes Masonry is so much a law unto itself that in dething any question the tiret conderation is not "What are the general prineiples of civil haw appheable!" hut "What are the ancient usages of the craft \(z\) There are many Masonie haws which would the held to he erromoms if texted by eneral principles of the civil haw: for example, ancient usite requires the presence of the charter in order to open a lowne: on principle the charter is only eridence of the rightial existence of the lodge, and whether it be present or not there is no reason why the lenge may not be opened. and yet the Masonic law is that it must be fresent. In fact, the most frequent errcis in the Nisensxion of Masomic law arise from relying upon the prinriphes of the common law and methols under it, instead of the amorent usures of the fraternity.

Methools of Teaching.-Masony teaches by legends, allegorics, symbols, forms, and cremonies. 'This fact and the serece in its work impate an ancient origin of the institution. Bery ceremony, every bulpe of othee, every adornmont of the lodge, every anticle of Masnic elothing and furniture-in fact, wery thine upon which the eye rests and every sumd which reaches the ear in the working of a lodge -are intended to teach or impress upon the mind of the initate a precept or principle of Dasonry, while to the profane they are menningless.

IUtwonir charty, While Masoury more than any other institution of homan oripin teaches the daty of clarity in its harget and most sacred sense, it differs from other societies mon fesentially anent relieving distress and want. It has no syatem of "dues and berofits" ly which one pays a fixed ammat at regular intervals, and therby entitles himself to relipf in ease of sicknes withont refenene to his permiary condatin. Levery Mason is homen to relieve the distress of a worlhy bruther, his withw, or orphan to the extent of his abilite and of his athility he is himself the sole judre. It is true that dues are paif to lompes to crate a charity fund, primatry to roliese the mesesities of the members of the
 fon riflife grow ont of an thal distress ame not ont of the paymont of dues, and the londer, as in the case of the individual Matan, is the sole jodere of the amonat of relief it is able to
 Lramal for a chaim tor rimbinsment. It must be admitted, howerer. that the has beet a tendency to depart from the wid rak, and to hold that a member of a lofge is ratitled to ridief from his landere ewn to a full support, without referrave to the ability of the loolge: and aho that a lodge which reliever a member of another lohge is entitled to reimburse-
ment；but it is generally hed that both thase chatur are at sariance with the law of Masonry in relation to charity． Another evil has grown ont of aforling reliof hy houges；it has a terdeneg，and has hat the reault，to wation the s．me
 right of ewery dintressul Masa to and reliof and tha daty of
 in all their primitise furce：atal molder the lambartio of Masonry wo pow can take away this right，or reliew from this obligation．

 race and there are lownes in alimot owery part of the hation－ ble globe．In the bery large premertion of thota tow hatio－ ties are jublinhed，and it is therefore imposihle to giva an
 or even of the number of loderes；an atemptomemate them would lue merely a giess based upnoll no reliable datia．
 and the Bominion of（anata：is the former there ane fify grand borgex．and in the latter anem；the member of thoir respective ondienow，acrordine to the lateot roturn（for
 Canala）．

This sketeh womblan lar complete withont the statement that among the 1 ＂ophe of enthe in the U．S．Mannry is

 ing the same riteo．and urganay in the sathe maner as 1 lue Masonry of the whites：but the later do bot recognize ban hold Masonic communation with these orvankations or their members．

Jonam II．Bremanab．
Masonry［from0．Fre magnerie derix，of moron（whemen Eng．masom，from law lat．machio，than，of uncertain

 beton．Stone masonry is divided into cut stone（ur ushlur） masonry and rubhe masonry：athl rublle may be conersed
 showing ouly vertion and horizntal joints on the face or irregular ruble．with the joint－rambiner in randen dime－ than accorting to the shapes of the tones．（＇emerete may the brich，stone gratiph or shell concrete，depmoting on the material used for ballant．＇flow fromt of a wall is termed its face，and the matorial compusing it fucing，as distin－ guished from the burfo amed berbim，which andy to the rear or inner surface of the wall．The interior is called the hearl，and the matorial hearting or filling．When the face or back of a wall is non vertiond inut inelines toward the wall from botwen to told the inelination is called the bather or butio．Thus＂a farebather of 1 in 20 ＂means that in a height of 20 fert the face of the wall departs a font from a vertical line．The methen of arrangenemt of the stones or bricks in orater to worme strenth and unity of mass is eatled the bond．Headire are those stomes or bricks whids show an end upon the fare and hate of the wall，and there－ fore reach into the wall thoir cative dength and himd it the
 est alimensinat on the face or bark，as the cate may lat and to tive longitulimal trenth．For walle uf sume mannory
 through from face to bark，and is tormed at thromple．In

 binters．The lower surface of a stom is termed its later

 Jow，or at the sides．Awhor is an ratormat fininm of ent stone laid with clow junte in courso．the quatity of the facealressing being such－wither axit，tenled，ruband，ir pelished－as will bed－uit the wara－tur of the materian and



 ing may te rungh，irrugutar rublde，hrothork，＂r wherete，

 heartings．for which purfore whe－lifth the we－8hard of the
 should wot tre placed ane abme the mher int contimuma course，but su that the hembere of dach coure whall rent on or near the midfle of the efrethers of the courec betow．

In impertant wirk，werh ara－wall，for wamphe the furm










 －retion of \(n\)－th－wall ant a cota－ erete fomblation，with stma faciog and concran hathas． The platioe of thitning ulf the howh from a few inthe－ froll the fare．ser an to shan chas farw－watk，with litta tatmer of stome cutting．be in
 metlorl of hathing whathem．
 lowed ith laying the thitu and har，a kind of whertins．以্－ rally but ower 4 inche ior inthes in thithiture，wal for facilug the walle of rity homens． in whith the anly In ind－otnom axeming throth or nearly thromesh the wall are thane furming the jatule to wimdew
 －tome whally rublud or fime－ li axel brawistome or sathl－ stun ur polished marble，are ted to the brick batking with hombiron clamas．and even these are sometimes onitud Where the distance bet ween the
 exced is or 6 fort．The rise or lwipht of header－hand

mot exemed their widfla as and an the face of the wall ：that of stretchere shond be momewhe low than that transwere

 jointashoda not be carriad mithorizatally to the face of the wall．fur tho reabon that the lower edie of cach faccorthn wonh aro－ sent an alate so acule as to be liathot the jury from wedents ant the eflects of

 ＂f the Mumer that at dan \(t\) inches in width of the bed－jomit shall be burmal tu the face of the wall，the thown in Fring ：3．
 the wall is mater water．far the jomen will
 retain water，and will lur injured by frout in





 al the wall in aftery，a－hown by the 小omet lines of F゙ire f．In com－ prosima mile，on whote from amy
 and unvidhlage fomblation．Aldi－

 be given th the wall at the tan： and in urder tol lacen the werisht
















FM: firntertions may las laft in lha
 remputing tavitas of the cont-

 diatmoter, may the plamel in a
 -xteblaner anme ind mes into the blactas above amd hotwo. 1heaty





\(11: \therefore\)
come from the fuarre, with wnly their mont salient protmberances broken all with the scabblas-hammer. The anly implomentsuand in laying aro the trowel and plamb-ruli, und no attention is jaitl to commens. The interstices of






110.






 opus. imertmo of the abebents. With stome of a hark color a lime ethert can he problaced by peninting the juints with white mortar (Fig. 万).
f'enersel rubble wi squared rubble beill in courses (F'ig. 8),



Fig. S.
are, at lans aypoximatery reetangular in form, so that only vertionl ami harizontal juint: are shown apon the face of the wall, and they vary considnrably in thickness. Although the stomps are lati up in what are termed courses, there is nu moformity in the heights of the several courses, nor even in the stomes of the same eourse, two or more small jumes being often employed lo ottainat rise equal to that of a siturd large ont : the hotight of a course being equal to that of the highest stone in it. The top of ench "ours js earefally thashed to a plane level surface by tilling in voids and open spaces with rough rubble masonry or pralls set im mortar or with comeretes so as to get a goon bel far the course which follows, uspecially for the hestlers, which should be set so as to be in clase contact on their leens thronglunt their entire longth. W"hen the stones run very gencritly in rewtagntar blocks and of good suze (containing,


FIC. 9.
suy, from ? lo 6 (rubie fort), or are broght to that form by antting, a pood strong bond an be secured by frequent hemders, and it is not desirable to lay them in buill courses. Imdem, the wall will possess greater lompitudinal strength
 W゙ak is sometimes celled mbhble matsonry with horizontal amd vortical joints, or simply squared uncoursed rubble or

irregmar coursad rubhle. It is momelnsml, and by most anditeets and builders is preferred to comrsen rabble, and
by many to ashlar. With Jark stone, showing at split rockface, pointed with white mortar, a fine architeetural eftect can be produced. Stone having a fine elfavage is wedl suited to this kind of work. When rubble is laid withont amotar it is called dry robble. It is gelle rally \({ }^{\text {at }}\) ramban."

Brick masoury, when both the brick and mortar are of good quality and the work is will down is strmir and duraFile. Varmin kinds of bend are used, the mat usual being

the English and Fiemish. The tirst (lits !n) ronsints iut arrumenin the comeses altermately, entirely as hewders or stretchers, the brioks thromgh


Secrions one as och
 womb and dathing is thorefore sabed, and the danger from fire lessemed. The mortar for briak work shomld he madi with clean, sharje and rather timegratued sand. ur proforalily Erabse of variable sizes. Jor


 bmes of sathd. sin-wind. of samd roumbeal los attrition. is not sutathe. nom noither sat water mor event hrackioh water should be aral in mixing. (for the freemaralion if catment mortar, for rither stome or
 Tha thricki thomlid be laid wet. sos that thay will mut rapilly Ary the martar by extratione the moninture from it. . Ill the
 bu completely filleal with martar. and nus hare mortar than will suflice for this purfusar
 especially those between the courees. shomld mot areesal a quarter of an inch in thicknes.








 concreta jumansocs the wlanthe that it cond lav laid withont





 materind alome by matting the comero fragemente or hallast

 artificiad stone, of whinh na exceplent varioty may tre made

 compateotel in thin latyors by rammine. "lhe form to lae


 gemen formala heiner viblume of dry cement. I volmane of dry
 was nsed it! the consofrotion of the aguoduct of the batate fur mujlying water for the city of l'aris. The pipe is tit
 at the sides at the watherourfateo Testing wh an arede, the whole forming a single monalith. An entire (inthice chareh, with its fonmdation, walls. and atoeple, was buill of this man-
 in that city. \(1 t\) is aternsively used in the \(U\). S. A fine and highly irmamental hridge in I'rospece Jark, Bronklyn. and the lluted coblumas and rither interior finshat of St. Fat-
 of it. The fommat wn of the slatuc of liburty in Xew Yort

 foet sifuate at the top).

The struneth of masomry is always las than that of the stonse or brick of whioh it is formed. and it is a crommont

 square íwh. Stumes shablal ha laid in the wall in a simitar pasal jon to that whish they hat in the quarry as it is fommet that the groatos durability is thas secolired. 'lhe juines
 and wis that the dirention of the framare in momal to them:


 spuare font of - brimete. 'Tho men of rublile masmory ranges
 sonty from fur first -elass work, whilo dimensien sume masonrybu drable








\section*{}
















 cyrotumes









 in lats in the fittemath whtary, and wa- hatenduent at tha





 Through the strets playing wilat prank.









 brations in homo of hombra of Aman when she pasand





Wi. tirst har of the mathue in Encham in 101?-13, at
 "hasuisid after the matmer of ltaly. watled a mank"-the

 mand simpler than in laty durine the same perion], and


 wa- liked be llary and blizatheth, and was ant imes given
 nitiowne of the latian maspme of the samm eatury. A

 Lambans: batlor fowertaing the l'equants at hemilumeth

 with him and his famity: The ecortiome tome delight in the

 them they semblat with one amother in spandial anteratio-

 atrimate of the prind—ery conly, hat wery pablar. The











 Armatio wark to writh than aity tritho. Fomenat ammer











the anizens of hombur ; where tha charactere were more "arefully worked mit, where sumbing like at fot kept the Whon thether, and where umethine like an action was introderel, it trenched to nome ". Went upanthe domain of the
 duman was mate \(1 /\) the manget in Italy the work of the



 Which soxvel as a foil of comedy to the erame amb the - Fhandor of the main mangut. In his anti-mangue profes-
 a- a mhe marly exathing was dome by the mble amateurs

 Bonford. Laty Arabella simat, mad many others of the comet, acted in these ehtertahments. 'lohey were very ex-
 fone times that amonat at the prant day; and in special fates much mote was spent-for the Triamph of Pence of



 Yairs of all ranks of tha pooplo in these masques had some iffect on the resular hrama of the time. The active part the nobility look in them aded in bringing the drama and the cometiers into that chase comene tom of the two that marks the derablene of the Flizatedhan drama mations and mastur-like reffects appared in phass of the time, for instabee, in The Tompost. The Jluid's Tratyedy, and The Buthess of Metfo; amb, chisef inthence of all, the atention baid wsenice effects mast have done much to bring claborate sombery to the rather barren boards of the regular theaters.

Charles l. hy no means did without masques, but expuded less uren them than did his father. As a whole ton,
 (16:3) brlong the Arewdes and the C'omus of Aitton, both of which show the inthence a the masques that preceded them. Thmond, as Mr. Smomets has saild. in Comus a remper sees "how the scenic elements of the masine, thathing the fancy of a great pret. lecame convertel into flawless poetry heneath his haml." With the coming of the ('ommonweath and the cessation of all dramatic performances. the masque practionlly disameard. See, in gencral. Symonds, The Preducessiors of sholispere: Wand, A History of English Dromatic litereture: for donson's masques, see caristrome Library, Masigues and Entertainuents of Ben Jonsои.
(ieonge P. Baker.

\section*{Mass: Sice Forte and Dramu}

Mass: in the Roman C'atholie 'hurch, the Vucharistic oblatim. The derivation of the ward is disputed, Xhast probably it cumes from the temination of therervice, Ite missar ( \(=\) domirio) est (se. ecolosith- (ho, you are dismised-and not
 Mass is offred in thedienes for (hriat's command, "Do this
 It is a sacrifice in whimh the separate consecration of the hamed and of the wine "shaws the aeath of the Lond" (1 ('ur. xi, :(b), aml in which his budy and blood are receised in commonom. Theme esentians of the Mass are preceded and followed hy extarts from the P'salms, Bustles, and
 While whers vary acemdine to the sumben actordine to
 as the cemembes if the Mase differ censiderably in the
 vail-: in the lamern, the (imen, syrime Coptic, etco, are still diatinet. I Lone Mass is ame which is entehrated with-
 con. W'ith theme alditions it is called a lligh Mass. A
 is matameal by a hishert.
J. J. К゙Eane.

Mar'sa, nr Mana di ('arrara: town in the province of
 man uf taty, ref. d ('). 'I'la midnass mul salubrity of tho Whman arranmed umpald in laty. The city is a bish-




 century．It was for a hong time sabiget to the rambla is
 its fendal lords，and Alberie l．bont the wew twinn and
 Pop．（1881）8．998．

Massachastle：one of the 1 ．A．of Sinth Tmerim

 known as thr Day Nate



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 same parallel． \(13 \times\) milus：proatest brandib fonm the siow













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 amithe eftecto of the iowshot that at ane time eovered the
 thekot ate in fart formed of erminal monabes．Bewhers



 tion of whieh the tale hat ranked first fon many vors． Several variefios are foumb，viz：］lomblembe in Sorfolk
















 is fombut in tha walley of atll the prinuigal strams：reta－







 Thare are a manber of well－lanwa mintral amb wher springe，whome wator－hate a latere sale．

Sial and lememotions．－Wurh of the soil is maturally













whal，lobly，rhododendron，swent ligy or small magnolia， amb wany inher tras ami shrulm．＇The state borni of agri－
 lar－t have areatly ableal the farmer in mationg fertile a soil

the following table shows the acremed，yeda，and vatue of



The number and value of farm animals on dan．1，1s94，

 the， 86,422, value 8,30 ， \(502:\) sher， 51,441 ，value 8187,760 ；


Zodutur．－With the exception of deer protected by law in Plymonth and Barmstable Cometies，and the widdeat the latre wihl andals have become extinct．lhe existing mam－ mals indude the gray and the red fox，the mink，land otter， raceon，jorempine，muskrat，wordehuek，weasel．grampus， and pornose．The anthentic seeves of hards fonnd in the State numbur 316．Of these，about 105 bred within the lim－ its of thatite and 70 are chased as rare or occasional risitors． There are over 100 species of marime fishes：about so speces are found in the frenh－watur stratos and ponds．There are marked litierenees betwen many of the fishes ant mollusks foumi on the norlt amd sonth sides of Cape Cod．Among the reptiles are \({ }^{2}\) spectes of vememons makes．
（limate．The elimate in armeral is eoms，with prevaling east and northeast whats from lebormary to May，and with west and southwest winds during the smmer and fall．A markm charactoristie is its varicty．A winter is seldom passed withont a few days of extreme cold weather，and short spells of extreme heat are often experienced in sum－ mer．The winter sason from Denember to Mareh is usually cold and rigorons，the grombl bejng sometimes covered with mow during most of the entire period．＇l＇he propurtion of and and dain in the eastern or exast section is considerably hase than in tha interior or weatorn gart of the state．In toriontern section the sprins is in alvance of the in－ night．and western parts，generally from a week to a fort－ are not so the frosts．except an some barticular lacalitios， duraturn orners of onter whole is favorable fur arriculture．The average annual rain－ fall is ahome 48 inches．
＇lhe following table shows the averare rainfall at Spring－ furld，in the commeticut valley，aml at Roston，on the comst：


IThe following tathe shows the average temperatare of the two くillios：
\begin{tabular}{|c|c|c|}
\hline MONTIS & \begin{tabular}{l}
Hunton． \\
scernice for 23 yerats．
\end{tabular} & Suringfield， avernge for： 6 zears． \\
\hline May & \(50^{\circ}\) & \[
\begin{aligned}
& 59 \\
& t \times 20 \\
& 0.0
\end{aligned}
\] \\
\hline T191． &  & \(73{ }^{\circ}\) \\
\hline Suly & 楽 & \(71{ }^{\circ}\) \\
\hline Sbinisi & （ie \(1^{\circ}\) & （6）\({ }^{\circ}\) \\
\hline  & 615 \(5^{\circ}\) & 50.90 \\
\hline
\end{tabular}







Divisions，For administrative jurposes，Masachusetts is divided into fourtcen counties，as follows：

\begin{tabular}{|c|c|c|c|c|c|}
\hline Cutsins． & ＊Ref． & \[
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\hline Dukes． & 6－J & 4，363 & 4.234 &  & 1．1\％ \\
\hline & & & & －Anwriste． & 发114 \\
\hline ERser & 1－1 & 48.3005 & 330．393 & \begin{tabular}{l}
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｜Bulatis．
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\] \\
\hline Franklin & \(\because\)－ & 34．610 & 411，11：5 & tiruenthelal & 6，ごって \\
\hline Hainjula & 3－11 & 135， 3 ，13 & \(15: 9.434\) & Sjrimptital & S1，5： \\
\hline llampshire． & ：3－E： & 51，М\％ & \(54.11 \%\) & Nur＇manturn． & 10， 16 \\
\hline Shdullest & \(\because 11\) & 4：31， 16 & 429：3\％ &  & N1．623
Ci．3ti\％ \\
\hline Nantucket & く К & B．20\％ & 3.916 & Suntuckrt & 3.116 \\
\hline Norfolk & \％－1 & 115．420 & 131．4．19 & 16－1hatas． & \％：11 \\
\hline 1＇ymo & 4.1 & （r2．im） & 111，1！ & 1＇lylumind & 4， 217 \\
\hline Suffolk & \(\because 1\) & 小れ，in & 539.204 & limanti． &  \\
\hline Worcester． & 3 F &  & \(315,1 \%\) & \begin{tabular}{l}
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，Wiorewsur
\end{tabular} & \[
\begin{aligned}
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& 3 x, 747
\end{aligned}
\] \\
\hline Totals． & & く，足が，41：3 & ．3x1， 123 & & \\
\hline
\end{tabular}

Cifies and Tonens，with fopmation in Asta．－The permhe







 other cities and towns beng under 20,000 ．

Population．－Pop．（ 1880 ）1，283，085；（1800）2，208，943，of

 comprised the following elements： 11 ．If fran desent，e？－ 14：Chinese and：civilizel Intians，424：Japanese，1s．
Industries and Business Interests－The State is exten－ sively devoted to manfaturime．The leandige induntries are textiles，twots and shoms，machines and machinery，metals and metallie gerels，and paper and puper gonls．Bulletins of the eleventh C．S．echsu＊（1st00）report the following sta－ tistins as to capital invented，persoms comployed，ant output in the carions branches of the textile industry：Cothon－per－

 wortele，woul hat s，carpets，felt gools，and hosicry and knit







 made to the state bormu of satisties of labor indicate＂ap－ ital investod and ammal ontpat in the ofher lading indus－ trics as follows：Boots and show－capital inverted．Sth．ghti－




 tire capital inwoded in all imblace in the commonwath i－


Fisheries－In the eensus rear 1 son there were 101 vomels











 cries of the U．S．，Nuw halford had the hargent receripte of sperm oil．In the calembar gear lag there were in the state
las indand findoriw．whirh had the following rathen：Shad，







 and Salem．















 wher parts of sutfolk County．The State tax levied in 1893 was sid．




 Jepmits．On the same date there were es luan and trust


 departments．


 to tranact hasines in Masachusets，and ：3 fureign tire－ companice：total fire and marine companiev． 17.
Momes of commancution．－The huilding of railways in


 track，a total of \(4.5101 \%\) miles of malway tack in the state．
 its area than any other state exeft New ．lerory and any
 one diferent corprations but tive companios the thaston



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\hline ＊jurithalius． & lil & di： & ‥31\％ & ：4．4 7 － 96 \\
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 Wald, of Nurweriath desernt : that several Sotse sethlements




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 mont un the i-lami of 'uttylamk, hat somi herome disor-






 then, whan had somated from the formblinhed (hareh, amd



 in return for assistance given, tareturn a share of their


 tens. 'Jobey had intemdiod for sotle' somenhere s. of the
 out uf its conre amd anolumed in l'rovincelown biay. Nov. 11. "llhim Was heyobll the limits of the territory conered by
 of escroment hefor, lamding, the leadels of tha expetition drow up a comstitution or social compart, by the terms of which the coblong was to be mand, amd somafter dohntarver was edosen divermor for um raar. Nlter exploring the conct thay fambed at Plymouth, the 11 o.s. (Sue Fone-
 vat fons, amd lost noady half their number hy death. Mean-
玉nsalt (mow Wremonti) by Thomas W゙eston, a Lomdon




 fearly hy alf the infabitants. In lowis a small emonathy of
 but in lfed; abambonel the sitco and part of them removed to salion. Jere they were joined in lows by a party of lowitame malter dulan Endieott, one of the propriotors of a
 lasy. la liden a charter was granterl to tho patentors and

 a sulmodinaty gememment in the mew worla. 'The odlerers whe 10 emosist of a fiovermor, dephty, and dightern assistants. tu bo atmandy electad, and the limislative jowers ware
 another lunty of sothors aryivid. and in the same year it








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 nant to the laws uf Eundand." and to "ropalar and exdme"







 couraged, and atowe wrythine mar, harmin. Plymuth


 the l'equet war, the primeipal hosen of whath. low.erer. fill






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 them to excreise their fuwers. The strained ratation he-
 by the dedaramin of the eromeal eoner in lifor, that for any
 rights of the geople a-british subjets. The great st mifele
 war. cheeked the propurityof the condonies for atome time Before thi dixal ran war hal unden bow tronblace with the king had twoun. Prompted lew the wimdictive opitit in Eidmand Ramd!ph. Charla H. had at lant decided bannul the
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 president, hat under the eontral of the mowneful handoph, and the general court or leqidathe was ablizhed.





 hed for trial: and immediately wen the rewt of the in-

 tane
 France and Bongand, and lop pay the colomial trogs iwach




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 events which immatimely provedol the remhation. "The tirt blood of the lievoluthmary war wa- abed at laington and

































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wlly nuder livest 'Huter

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Thomas: litullo.




Ric. Thar.1 SB. Hhmethem



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 grim F゙ithore（Bnatun．1－t1）and c＇hromifles of Masserhu－ sethe（bantm，1－46）；Hollaml．History of Hestern Hessechu－




 thid fide in the Colomy of the Mussochuspots Boty（bess－



 of the cemanc of 15ni：1．Population and somend statixtios： 11．Menufucturs．s．Fisheries，sent（＇ommeres： 111 ．Agricul－































 tratmont is－－motimes ronfumbled with what is kimw as

a the latter involves active co－tination on the part of the pat bent．The history of massure has berol tractal thraugh




 －int：and the very word＂Nampering＂is derived from a Hinatu word，chempat，whith signition ruhbing or prevesing the buly in ernmeetion with the use of a hot hath．The （irmelin exidemty usel somethine of this kimi，for it is not
 to have bern a common practice anming athletes and war－ ringe dene the fall of the liotman empite this made of tratment aroms to have been abantmand unt near the ond of the seremtemh combry after which time it was used more or lese imperferty until it was revised about the be－

 In combertion with what in mow knowas the Swedish move－ ment－cure，of which ling was the uriginator．It was ouly abmut rad that manare，ats it in now unlerstood，was fully
 in anveral difirent pruestes．The Fromet call the chiof of theow efllourutge（atrohints，friction（rubhing），lapolement
 trabud prom，and mibheress is subjet to a large vari－ rety of monlifications．which，in some institutions，are made
 10 the treatment of a large minber of badily disorders，both mondion and surgical．and the range of its applicabifity is from milal hysteria to serinus disorlers of internal organs amp fracture of the bomes．it is used very extensively by mediral mon who treat inermus dispan＇s espectally and usu－ ally in combection with prohnased bodily rest on the part of the patinnt，amithe administ ration of simple fond in large
 －wrat comitims：On is manal dexterity on the part of the manipulator：amother is the sedection of an appropinte form of massage fur any particular diomaler ；another is the fropreprourtion of re－on the part of the patient to the par－ive exarefe efferol by the manalator：and，finally， the combination of judienons peychical and medicimal treat－ mant with massages．Masage dons gond hy meehanically presing ont from the tiosues material which needs to be re－ nawel ur to have it matural flow accelerated；the first，in the con of inthamatory eflusions；the serond，in the case
 vkiner misele－edts，and probaly all cells． 10 greater pinsio－ longeal artivity．Dersme who atminister massage as a cath－ ing are ralled masturs（mase ulnet），masst uses（feminime），or matsotyists（iprespective of gender）．Sateresting details in regaril to the hintory and practice of thasage may be foumd in the following works：Iosef Scheibur，Drakische Anteit－
 lath．The lrementem ated（＇ure of many（thronic Diseases
 Mensugr，tramslated by E．M．Harl well（l＇hiladelphat．1842）． Charles W．Delaes．
 molery．thaght heme to the the Magog of the Bibllo：a tribe of donhthat origin whathitigy the steppes to the N．of the Jaxames．hemoling to Ilerodetns it was with them
 thof ine for＇Jomris，having refusel an ofter of marriage mate ley cym－for the purpose of picking a quartel with her．Acemding tur（＇texias，the war was with another tribe， and Cyrus lieal if his wounds affer the thattle．

Mansamit：the whoftain of the Pokameket or Wam－ panat halians，fomd the the comisto of Plymonth，Mass．
 Cible forl to Narraganct Bay．He made a treaty with the
 hij，will thom umtil his death．His permanent residence wan in the present townhip of Warren．R．I．，where be was framonty wisten be commixumers from the nedishboring


 left twas sons．Wiamsitat amil fometacom，called by the colonist Acxamber and Philip．They sumeded him in the chieftainshig，the latter being the celebrated＂King rhilip．＂































































 and an extreet bedictor in Apirituabism.

\section*{}














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Marsilldes, and himand


















 Jlis lant wation wat that ont the [hathen of whatio. mother






 and motive. Jn form thoy are wromath and julinduat with










> 1. ©i. (iseryder.





 Wrawing of tragic character. in the dignty, redacoment, and





 Fhae bent entitions of his wortio are thane by Wilhatn ditford































 11. A. lis.t.











 Quebere, ismb.

 tion of Erammatien-witioal noteo on the Hebrew lext of the (hif Textament, with the object of determining its divisions. grammation forms, lethor, wowel-marks, and aments. ITralition arriw the origin of the Masmath tak to the timen of Rara and the sumpa. The are of the Bible, cope-
 draw the attentinn of trachere bits wording: and ha . Akibat onethent (which prevalem) of attaching importance to
 with which the text wa- treatent. It was necerary alow th
 sions wote mate intu pararaphe, sentences and chanes. Twn manco Nakkai and Itammana, are mentionol whe Went as far a- to connt the manber of reres antathed in the twent-font bunks of the Bitule. This was abme the time of the per-ention of llandiall. Latur Masorites went further, comanal the mander of serses in earb bows, the number of times extain forms oecored. and betemined the way in which worde wore to be pronomend which, for one reaton or anmithr, were not to beread in the syagenge as written. A late 'lahnudical treation, Mesophe th seffem. busies italf partly with these mattere. It was the Masurites whon hume ithe cigns for the wows, the ohter llelrew haviar bern writhen only wilh consmants. In this they probaly followed the rxample of the parly syman grammarians. Their firt attempto commonad early in the seventh century, ambons malartook torlist mgish words which were spelled with similar consmants. The whe system was her reloped, hawerer, turame the shit with the famites in the
 lon, wher" a "ertain Pinchan is mentimed (eighth contury) as beine formont in than athines. At the omb of the century Asher fombed the sthend in l'itmeras. 'lhere are two different syemens of vonalization-the' Thiberian, the one orlinarily fomal in our Hehmew texts, and the sn-called batylonan or superlinear, which can lee sern in the celebratiol
 coming from sumbern Arahit. 'Ther lasorites also in-
 served the doublt parpuen of markine the compection betwern the difirent pats of a sentencer wedl as the museal value of eaty word in the rantilation used in the
 treatment of the text, and farmiond the material. There are
 Hatuses whind were phased herwen the columbe of the text




 were pat tusether in the form of bake. The mat impur-






 TAlle, ч.






 Berx, beine stulie zur Giesth. der Mrasure, Verhomd. des





Maswow: an impmant part on a lithe ishand of the
 heme it- nam from the Ethingle, thromg the Arabie Ned-
 (-1i). It was nhtamed lay the lourks in the seventeenth cen-

 dithoultins with the Jahdisto, and with the combivance of England, seand Masona, which is mow her chaf settement and part in hro Jrican posemon of Eritra. The climate is exesonsin! hot and mabalthfal, hut an the lending gateway from thi sea lo Alossinia lasowa is capable of considerable developmeat. Poprahout le.000. C. ('. Abams.

Mast for Ving. mest : ©f, butill, Germ., Swed, and Dan. muxt. mast, prlage mghate with Lat, mélus, mast, carlier
 wont iron. ur sted rising mewad fhrong the decks of a vesci for the purnme of affordine attachment to the sails and rigging of a ship. The fir and pine of louget sombl and Norway are of grat repute as material for masts. Iron and ated mats are comsisucted uno several different systems. In all vesolls of any conviderable size ench must wo sints of several part-, of whieh the lowest is the mast proper. nest the tormast, the toggalant mast. and the royal mast, ind somulimes a sy-scraper, the highest of all. ithe foremont mast of a ship" is the foremast: the central one the mammast : the one farthest aft, the mizzemmast; and the aparate pats: of cach are distinguished as the fore-topmast. the mainttpyallant mast, etc., by combining the name of rath mast witla the arpropriate name of each part of a mast. Ships, harks, harkentines and some schomers have three masts. brire brigantines, and schooners ordinarily have two masts. Many loons smacks, luggers, and other small craft have lont ohe mast, large seagoing stamers have often follo and sometimes five, mats.

Mastalk: the name applied by the Eqyitian Arabs to the tombs of the mbles of the fourth, fifth, amb sisth dy nastics Whicll are fomblat sapmah, near Memplis. The name is derivel from the urtinary bench found in front of Exyptian houses. Thomgh presenting the appearance of traneated pramids they were difernt in their origin, being probably ain mutarowth of the cains erected to mark the burial-phaces of prominent persons. In the carliest specimens, however, the sides were abready formed of sloping masonry walls, and the ton were paved. In latter times their place was taken lag rock-hwn thals. The hargest specinens date irom thi frumh lymaty: the best excented from the fifth then of the sisth show signs of theeadence. One hmmed and thiry-three mastabas have heen fomil at sugquah; the largest and hest peservel is that of 'li, and is simated hatir the "stap lymmad." 'lhey vary in size ( \(170 \times 86\) feet (t) \(26 \times 20\) fect ) and height ( \(1: 3\) to 30 feet), are rectangular, and have thom longol direction X. ams Like all Eeyptian tombs, they were intended to inane the preservation of the mammy, "pow which the hope of "living again" dejemded. Tha ordinary mastaba contamed three essential featmes: the mammy-chamber and pit, the serdab (hoblow Gane or whar), and the chamber of offring. The first was -uhteramoan, cut in the ravi directly benath the chamber of odir.rimes and was reachod ly a jat which was usually vertical (10 to so foet (leep) lowater on the longitudinal axis if the matator a littla N. of the eenter. After the mammy hat hern plated whhin, the entrance was walled up amd thio pit fillom with harec stomes. 'lhe chamber of offering
 and comaned aspaphurd tathe of ofterige. To the murat


 prosums nsel show that tho mataba may have been conat mend thring the life of the arempant. The serdab was a hindur chamber in-ule the matiala in whith a satue of the小-al was matally pacal, to arree th the lome of the kia 19. e.). It was framenty comorad with the chamber of
 sia, hy which the inerne might reach the representative of
 entrance for the אia. I fals- don r, intraled for the (exthe

 offering. Other matahar which maty date hank tathe -ixth





 thest represented in the from water of the Jant hathe
 residents of lomia.


 used to derignate an wherer of the maye the whief dharer of
 of law courts and of anme other otlieghls. The ir titlec. jusw-
 SERvast, sed that tithe; for the ano of master an a them of stholatie distinction, see derarera.

In the L'. S. and the Briti-h matios the turm mastor was used to designata the mavisator or sailinemanar. In the U. S. mary his grade wathetwern that of an emage amd that of a limenant, and herankel with dirat liontemant in the

 was a line ollower of the lewmen rank, and bis title is inow navigating liontenata, or adt womathler.
 the chaef otlicer of a mernant verel, having anpome wommand of the eresk and the selpemagement of the ship, in common sumath collod the" "captain." 'lhis ollion, with its
 the hates of Otiron, and in ither maritime coules of the
 the vesial, and as an nent represemt hoth thement the own ro of the caren. If.e is chothed with wery ereat powers in resperet to the -hip, the carer, and the conw, ant when in foreigh combtris has ambority to act for and to hind his

 ity to do ansthing that uador the circumanom may he or
 in his charge from dostruedion. foin a full descrigtion of


Masters at fonmes law-- lommerly in Great britain these were live matorn or chertho on the phes silde of the court of guren's (or king's) bench, the cumbt of "xchn"puer. and the conrt of common phas, arphinted ly statule of


 with the same dution were attached tor the brathe of the
 befonged, amb they afon tramat muth of the bothenes at judpe"s chamberre.

 ing them himalf from the time of Edwanl \(15^{\circ}\). Thay were first cadled clerks. lat afterward requived the name mander. in the reign of Edward Ill., and are a -nrvival of a commol
 of the mator- in chnnery was callod the Pioter of the





 timony), the takine of frownizano. ofe. Whot a - rit in-

 sottlemont to a masar. 'the mantorn alow wammed upab reference the propriey of hills in "puix. and if report was




 tion if the righto of the garties unth it has leed contirnsed













 formerty given to inater- in hatary. The formaf pat ealure varas with the rathom and tathary rule of the jurialictimen whim he in apminet.

 ing of the rollo and grathe umber the shat onal, and the rere
















 many reverts to these of the rommonemero in lomay in semne of the C. S., hat are mone exturive.


 cutal at tho relation of privat" informers. and now, with


Mathe of the fiatime - I form in fireat britain for


 an ollicer of the rowal homblud. Whandinate in rank onfy to the lord staward and the land chamberlam.

\author{

}
 a rebatan tor eath , thar that wne has the lewat riche to drrect am! watrel all ant- dome wh himbote by the wher































 partues, hat the the of tionl. In tane the monat lowshe his contrat the matar may weovernames for the bexth,




 the centract haw wath may proced, in mot jurndictions,
 the worme he hav remeted, treatine the whtract an re-

 probahly -atam ley the maters breath of it. "r he may wat mutil the expration of the ferm for whin the contrat
 has camed him. If he sues for dammes the matore may show in returtion of his cham that he earned wave, or that he misht have eamed them by other like empheyment in the - anm lumatity.
(b) Brorh of luty- - The sorvant is boumd to obey all reambabla instuctions of hi- mater, and to exprt himself fathfully in promotine the mater simerests. For at breath of such iutios, comene harm to the mastor, the servant is liable to him in dimares. Hence if the mastur is obliged to pay thirl prems for jujuries dan to them be the servant without hi- athonty ur ratsication, the sotrant is hathe ovir to him therefor
on the other hamd, the mater is bumb (1) to use reason-
 work: (2) tel take suitable precautions that all tools and machinery are free form discowerahbe defects, and are kept in preprer repair; (3) 11 warn the servant of any hanger that is mot apprient or that is non farly ineident th the businums: (t) to make, promblute, ant enfore such rules as are netasary for the reamable protention of thoe engaged in his hanines: and (a) to we remonable care in setecting
 the berach of athy of thom datios, cansing injury to a sersant, an artion in thet will lie to remere the hamates sustainet. If these dutios have been fairly jurformal, and the injury resilt- from the nogligence of it fellow serrant, the mater is mot liable.
 that a matior is liathe for the turts of his sipramts within the senpe of the ir anthority-is quite moxbm. It was first anmmuned in England in the ano of Priestly rs. Foneler (3





 rene. In at mumar of the [. S. it has been gratly monlified by statute. The reanom asigumb for the exeption is
 takes, no betwen himself ane his mavior, tormall he ordinary risk of the merioe. implatiner the rink uf merligence upen the paty of a frilowservant, when the is actine in the dincharese of his duty is soptant of hime whe in the comb-
 culty has twan experneed in deterninine who are fothow servants and what is a common rmplownent.
 servants they mat have a comman mator. Jeme one amployed by an indenendent centractur on a bablinge is mit the folluw servant of amother wombing he his -ide on the

 emphyment they are filline swants, atthoush they do mot


 ter, and the stewarteso of a thambop: bat ther depart ments of dity maty las santinct that their emphorment

 tur. Acererdingly, it has bund beth that he capains of two
 in hia business, are not necessarily within the fellow serv-
ant rxception to the master's liabilitr. The safety of one captain was not, in the matural ani orthary course of thines, hepmome on the care and skill of the other. The injury of either hy the mexigence of the other wan not an urdinary risk of the service. (1'he Petrel (Rritioh, 18033), 1

 same railuay, where the risk of injury to (he is the natu-



Aowneng to the view which prevails in tireat britain and gempally in the l . S ., the reditive ramk of servants is immaitrial. E:mphyyes do not cease to be fellow servants lecanse the master has given to ena the control over another while engagel in the common spriee, and he daes not become liatle for injuries smamed by an inferior servant through the nestigence of his superior: but, as we have seem. the mater owes certam duties to all his servants. If one of them is injured by reason of the mater's failure to proman ant of the tive chases of duties mentioned above, he is liable for the damanes resulting therefrom. He can mut esape respmobility he delegating any of them to a servan. "ne to whom such a dhty has been delegated is often ealled a viee-principal, and his nerfigence in its performance is the mater's nogligence. It is the nature of the necrligent act, and mot the rank of the actor, that determines the master's liability. (Baltomore, eff. Ky. is. Bangh, \(14!4\) U. s. Bts.) In a mumber of the L. S. the courts take a different view, and hold that where one servant is placed by his employer in a position of subordination to the orilers and control of another, the master is hable for injuries sustained by the nergigence of the superior. See the disenting opinion of sustice Field in the lasteited case.

Liabilities to Therd lersons--The servant is liabte to thirl persons for any wrong he toes them, although he acts in ohedience to his master's commands. Dis contract of service can not be invoked against an injured party as an authority to commit a tort, and, if he knew the aet was wrongful, he can not oltain any indemnity from his master. The mater is also liable if the servant's tort was committed "in furtherance of and within the scope of the business with which he was trusted." Even if the relation of master and servant did not subsist at the time of the wrengful act the master may make himself liable therefor by ratifying it. Se Rathemation.

This extraordinary liability of the master is thought by some writers to he the "rimant of the obsolete institnthan of slavery, and to require "men daly to pay large sums for other people's acts, in which they hat no jart and for which they ture in no sense to hame." (lotmes. The (ommon Lerr, pp. 16. 13, 230.) l'moubtelly the primitive law of unr (iermanic ancestors held the master absolutely liable for the wrongs of his slaves or of his free servants; but this doctme sulfered a radiond mondification daring the "arly common-law period, so that by the sixteenth century the established rule seems to have been that the master was liable only fir the servants' tomts which he was proved to have commanded or assented to. Aprarently the rule was fomm to reline the mater madnly, and a raction set in during lard Holt's time, which has entinued to our day, resulting in his present stringent remonsibility, (See hespunsibitity for fortious Iots, in l'rof. John Il. Wigmore, 7
 reacon for the existing rule can be given than that offered by Chinef Jutice shaw when he dectared it "is obviously fimmbed on the great prineinde of social duty that cery man in the management of his own aftars, whet her by himsilf or ley lis agents ur semams, shall so conduct them as not tu injure amothor: and if hie does not, and another therehy sutains damage he shal answer for it."

Indp\({ }^{2}\) ndent Contructor--This respmsibility, however,
 a fursim emplows another to do work for him in the capacity of an monnentent rantactor he will not he liable for the ahmes torts save in rxerptional cases. Nor should he be liable, for he dats mot brtain the juwer of antrolling the work. Whether such powor is retainol in a given ense is

 free to use hicown dinertion in the mamer of acemplishing it. he is an independent contratur: the hasinese is his busimese, and a persan injured hy his comblact of it on mot look
 615.) If, however, the work to be done by the contractor is




 is for similar lerts hy haverviatls.

Tho is the Master f-ln sume rame thin gheation is a







 the right to diachatese him. In tha other. it was elabaral that he was the manter", whas has the risht, at the manaedat. ta control the doing of the wromefol at. 'low onart fonk the

 lar matter, thatarh he is at the same time the eraberal orto ant of another. Ho masy latie two mantors at tha satue time, lat mot as for the same are ; amd the toot of reapmani-


 servant to do an ant whad eames injury, he will he liable. not us a master, fat an the prowter and callese of the wrong.

Scope of Employment.-When the wratatio wronefnt act is specifieally undorad his the master, of is the mataral amd
 is also reamosithe if the are was dobse inf firtherance of
 ant, and it will mot analter that the complosiot hats forlidulen the particular adotand that it man memetit han in fact.


 atroms the ranal in front of it amb cabaine it ta nume If
 emeronder, the lathers eleceinion will hime the formor; as

 is within the soope of his employment, lati mat for wrones-

 ond who wan kicked by a brakuman while attempting to





 his servants tot within the limits atmee deneritual. he is entithed to reimbormonent bug the arvant for any dathatem he is conmpelleal fo pry bemate of such turts, wiless they were authorisend or hase laver ratated liy hime.

 statute. hot no athempt will her manle ta grive the detablo of



 пиantor. (










 and rhymers whe, after the deelina of the bmatreathe in

 lieving that pattry was an anomplithoment that smalo! la.

















 pedantry wav n-homd in alat


























 in the intorgor of dicrmany. Smultamendely with this

























































 and the hap amb dhems on the wher.

Mantiantinn in anomplinhod hy the tanth af the lawer jaw

 are uf thee katala: vortical. lataral, and formand-aft, the











 athe the phatyma. "the lateral mowemente are ime to the
 wat the mavemento are lateral, hatione for thebr purpuse the serindine ot the phese. In carnivara they are wetiond,



 -in anmak in whind the moriondent is of the vertion char-

 thone in whinh the lataral tyle is marked the fath are

 the c\&























 is requlated lis than whation imparimat by the evormandy A.
 :


While mavitotion is a foluntary ate it is corricel on almast athomationlly after it is started. tha process being




 in herflibura athl ombitora it is esantial that mastication bre cantal 10 an high dapree in order that digestion can take
 is fal mone dallienlt of digustion than that whidh is. "The
 tratal in the prevalatare of dyxapsia. (atambisomens birds,
 phees of indase, elt., with their fomd. whith ly the aid of the bowerfal masiles of the gizzald eradually griml the foml, and than mastiontion is practiondy acconglished in the aturlatrol.

Masliff [M. Enes. mestif \(=0\). Fr. mustif, mongrel, appar-
 tin> lir.milen < hat. *memsutti mus, taned dog: the word


 Fonglish and hriwhatiffo (brewls which are unfortunately
 strengh, hut excel him in masmamity fathfulness, and attoctial fur man. 'Tho mastiff shonh have a mascise hemd, tromd forwhad. shor mazzhe. and small pendant cars. The nek shauld be muscular. What full, leres straight. The hair shond be short, the coho fown with black mazale and ears The thatany nowalays secoms to be to breed this dog with an sualler hoid and mizale than furmerly. (A'e Dogs.) The Thinet mastiff, from Contral Ana, is one of the largest of the dog tritue. He is bef buth as a sherp dog and as a defender of the homs. The storalle日 Culan bloothound is really a matiff of spanish origin. but in ferocity and bloodthirstiness appears to exced all other breeds.
hevied ly F. A. Lucas.
 tos tonth. Named from the eminal projections on its mohar tevh]: name of a gemus of 'lort iary and (uatornary quatrupeds of harge siz". Indonging to the omber Proboscidea, and - Josely related to the eloghant and the mammoth. They are distinguinhed from those animals principally by the more simple strueture of the erowns of the molar or grindiner terth. There tepth, acoording to wwen, are seven on encla side, above and below. The first two, at hast in the apper jaw, are followed by vertien shemsors. hat the remainimg ford divplace sue another from behind forward. uswally mot mote than two of abla serias being in ane at one time. or ceght in all. "'ho molar teth have wadge-shaped, transveree ridges. and thas summats of the ridges are divided by
 divibed intas smallar eomes. more or leas respmbliner the toats uf a cow, whence the mame, meaning " aipple-tooth." "The form of the tue th is of peraliar interost. as being intommediato betwerl those of ondinary hertororoms animals and lhe \(x\) mmphex teeth of the elephant. In the common
 (ansed by throb to five such rideres the last molar above sumd below heing sulyjet to some variatim: but in the Hhee terth proweling the hast there are three such ridges,



 3. simatmais has tive ribges, whihe another group. consuburod ley that antlur as intomodiate betwern Elephas amb Mostodon, amb namod situmbon, has six or more such



 only in a bry thin hay over the damble of the erown, while ins stemicon it is pusemi in comsilarable puantity in the vallegs thetworn tha aroweded rideres. In the elophant

 and frometamally high. amel tha. intorvals are filled with ramome which alan invest the whole erown of the tooth. As subla a doth heromes worn by uso the eriming surface will present a series of ridges of ellamel (erosing the fowth,
and uniting with eath other in paits at the sidece of the

 between the nreas. and conatimana with the externir of the

 termating with ridens of that material.





 incians ware deselognd in the form of lu-k- like thame of


 also present in the lawer jaw of many amblarlats atl of tho

 'The skull was ma-ive that comsibleraty lightomed by ar-


 such an organ is shawn hy the shortne- of the wothothe



\section*{}
























































 have hater lows

 ras- liritsh lmila: at the mamit of : berthern hramth of
















































\section*{Matabelew. The: Siq Kivfotro.}

















F. A. land.

Matamoras anamen in hatur of the patrint Matian Yhammen: inmereply withon Matamman: fown: in the


 and i- the wher of a ridh graziner dimpod. Sar it there




 tioable for s.a.e.h drawius of for of water, thengh ondi-

 that there is math contratamit rathe with le vas. The phate






Herbert II. smith.
Matamorav lancar, or simply Jairar: a tomin of the




 irm and land are repertel from the vienily. On Pedt.


H. \(11 . \mathrm{s}\)

 the rewhtimary fore of Nombe in bec. 1411 . in the


 this being ente of the bunt signal betories gatimed he the


 him was refusel, and he was shit at Salimhlid Vor, 3,






Matan'zas: at down and furt of the mornhery mat of























 -


 dompusc, womb hail to ignitw, or the ated whald mot re-
 "oblo was to bormw tire from a hoirhhor, and in thinly set-



 of lintwot lingle, pepamel and shl harge quantities. it
 tworn the lolda of brown fitier. athe a sulgher match was ignited from the resultime flathe: hat ac phophoras was
 blobet. Gbe of the bay of the earliod inventions by which phaphoras was aned for whamine fire was the" phephorns
 fhars hal hera simed with a hat wire, su as to eont the


 Wan diphed in and thas Eunded. Ithis phapharns bothe
 wore invontal in 1 sat the (haniol. of faris. These consisud of : fllints of wowl tipned lirsi with sulphur amd then with at minture of chlame of puta-h. Lim, and sugar, eolwed with vormilim. These matelys, when hrousht into
 a small vial shal with them, immediately ignited. Such matche wore very incomveniont to we in the dark, and an apheratme was devised for lightinar them which cond be jut in ardinn by pulling a cord; lat this was expensive, not furtabli, abil was more curioms than nsilul. In the same Fand phophorus matehes were used in Paris, and in 1809 Therepas sherested the mixiner of the phosphorus with magmosia in wrler to diminish the Amere from such matehes. Iherond is sairl to have mate a friction match tipped with phophome in \(1 \times 16\) : but the time rastly practical lricelion

 after sir William Conereve the inventar of the Compreve forke. 'lhay entrister of womlan splints, or strips of eard-
 thantipurel with amixture of sulphide of antimony, chlorate
 conitaincel ciehty-four matches amd a piore of samdpapry betwern the fobls of which the mateh was drawn for juntion.

In 1 Kiso a \(M r\). Jones, of lomdom, gatented the matehes called Promethems. Thest were made of a small roll of waxed fater laving a minute glass globnle of strong sulpharie ated coatorl with in misume of chlorate of potash and sharar at onc end. Jonition was effered by breaking the ghlmal. of arinl. and its enthento ateting upon the mixed chlorato of potinh alld shear, problumd fire.
buhthe (bngreves and Pronmetheans were endowed with many ohjoctinnable featare: the former diel not readily irnile, often the bumbur tip aprated from the splat, and Tha fume from the harnines siffan and antimony were of-

 monent of igntion : moreover, both were ten expensive for

 (lat. /ariferus, that whinh brings light) fridiom matches.
 unc. in the farm ol wooden cards or enmbs having about a






 1"~1!
Phomporas friction matehes were firs mamfactured on



 ficture




 ur death reliaves the sulferer. It is satid that elembliness, wotilaton, and carfal attention fo the twollare almost













 wirk with wax, and tipgug them with igniting romporition at one "rid.





 of the whene fornation. Aphsing this wimate to the U. S. the daily consumption waild he the monome total of \(530,0100,000\).



 whlued at Sl, fitu, Thi.
W. J. Inderi.
 mote: the mate is property the womd in which it is prepard \(]\) : a name commonly piven to the driod hawo and small dowh of hes paragueriensis, otherwiee kown as


 do tull: all mandenatlempts to chltivate it from the reed have fated. The l'araghay math is that here known in Formad. but a mach greater quatity and bether quality is

 that ohtamed in tater montha being inferior. The manches are cut off. pussent throurh the thatue of a hoot lire, atol the
 to the hat of a slow fire of armatio wand: antmanematy they are fully dricl, brokon into framents, and parked in manhes bonnlin hiles for the market. Wfen the prombet is andulteraten with the bates of inferior spectio of inex, ar esen with phants of other ortere. Mate is the commen and

 it in plated on a gomed cup: hoiling wator is added, and the dipuor is sucked through a silver or tion the having an ex-


 are offer ridnly ornamented. The thator of mate is pate undike that of tias but it is gratly anjoyed by how who have



11. 11. - \(\mathbf{y} 1111\).
 the state of san hain lotoni. Meximat near tha fromtare of


 though there are -man mine in the immentate sicinity.

H. II. S






 many of harge size dopiot wernes from the hiventy of In"e trian lowand. W. Nos. 1, Inem.

































 and the math, after philm trialo all exitime thiner have



 or light throunh the lowly and dienered with it at dath;


 of nature and the affaire of mortal. Roblath materialiom




 mon of hateres bat it dil mot matatan at Rome the hish "that charactor whis it hat alamal amone the firwo. baving here so hitterly al-ailed hy the sham philowephers
 oric plemanes.
Atalian maturialion rowe with tha chaneal resival an a



 the nowoult of the will, and the voltandiment of fiml in






Eingh materialions the same the was opening bew






 (-11-jun it: main -











 themethal dimas. ly bus why doblatig the visteme of




















 with the latse of venceration and mifomity, how may we


 monto of shats, wheredy hax shewn that manal apera-



 ty a base of phophorizen sulstance on the part of the lar end! in whation: What it uses it up like an ignite. plate which is burniter away ito own montial ernstiturnts; and
 the sumatinns harnams at the same time the artasion of a lowal dewelogment of beat." This may la ferfeetly trme ambly yatheles for the demate. livery one mbuits that
 but this phomberw is fomm parine ofl in the omdinary

 intu: a material form. Ile satys: " It (thenght) ate it (phaspharas) up": "hat phesporm is also fomm passing from the



 เиは:

On either the matarialistio or the primitualitic thyothesis
 intelleqtual prowas. If mind athl brainare distimet. amd


 in the brain. 'lhat there is no botak in the comtimuity of






 tron, if is askell, buw can thiomind have any elliany in direvther or controlling the tully
 to this clam of the matrialth is this: While the minal ath











 physical thata









 is the hrain jracesson themetwe are conermed, that ideal-
 materialion is atertingly thenw further late and the




Late Hentistic tiens.- liw answer takes currently two formo in "llonitinu to materialism: Some helf that the hisher montal jumemom-thanda, ethical cmotion, rolition,


 which the low of then hisher mental functions is directly (ansed by lemms in the hrain. 'The other ansme to the ma-
 with all that it is capahe of doing is itself a fact no matter how the bram may work mader it. and since atl knowledge
 the prexeses of enincienismes the problem as to which is the ultimate form of activity, mental or cerel)ral, must be
 The yurstion at isme then heomes this : Granted a consions proese of thatht and a bran prowes gong on logether, each for insolf, haw can we hat explain man's personality as a whole compling lath these factors:

Thas thrown into metaphysics the materialist finds himself at the marey of the indatiot. (See Metapmases.) the shlations, howerer, now most worally comshored alequate. of the problwom of mind and hody and thoir relation fall umber shme firm of monism, i. ". which holds that these two sermingry ofpucal things mast after all be forms or
 is noe, and which in its hatinr must in self aftord an alequate exphation of "man with all his mind." The two ontstanding find on that sem to give adornate suphort to the vicw that thin inst primiple of all things is mind are these: First, hhe matare of thinking as a reflective act involving a subject who sets himself wer against his thought-what is
 the fict that all our knowlodses get judged by us in a way which we call ethical, as what more or less, some than of hers, and that we can bat holf, jubring those knowlelges which involve selfeensionushes and ideal things as worth mowe than the mechanieal facts of objective science.

Math rialism of Lite.-As a metaphysicaldentrine materialism has anordingly been pationly abmandod in contomprary philosiphy. It is now active as an theory only in
 inm of life" was now mow ageresively rat. It is in fact rather to the atisme of philuomby of of eloar thinking and the deartion of hish iliakls of thought and conduct that this phrase has so emmmom and so pertinut application in montra commerdial, liturary. and suinl life. When a man is filled up with matiotial thangs, low aimo, physical comforts,
 tie situatims, he is marvine his thinkine mature and bletting out his ideals. littor a manshath think, even though he think wroner, than that materialism in this sense should bualyze his ahilition and his cultavar. For reforenes, see Hetimushs. The hot single history and critieism is Lange, Mistorg of Muterialism.
d. Mark Baldwis.

\section*{Materials, Nifeneflo of: Seq Stmengti of Materials,}

Mate'ria Med'ia:a [Mon. lat.: Jat. materia, mater, sulject-mattur + me diera, fun, of me'dicus, medical, of medi-


 amb lrink, and of momal amb hygionie inllurnces, fully as mudn as of drugs, it jspain that the term materian medica
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1. Li. Marah.

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 commal af phblis. work.
II. L: Hetras.


















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 (tramiated from List), ete. 1), in Wanhingon, Feb, fa, 1881,
Mat'ins firm Lats. matntinns. of the mernings deriv. of
 artyl: sucatially. the early moming strvice of the Ro-


 a thwn in the extrome sumbura corner of the istand of Yezo. Xorthern latan (owe mat of datan, ref. 3-1). Contil 1868 Bat-umabe was the center of dapathes civilization and trade in S'gn. tom the dequeture of its lods and the growth of Haknkite hase reduced it wa derayed comdition. Its
 "pron romband, ant its sitmation is imblat. The castle, sithated on an eminence commanding the lown, is now dewhel to the parposes of an momentary school, and its prombls form a mall phalie gartho. 'The last struggles of The atheronts of the Tokuginat paty in 1 w 68 were mate in and anmal Matsamaye, and the town sufferd considerably. 1ין, 13.000.
Malsus, gumatis: Bce Mesmas.
Malla, matata. Ticillerma: Imlitician and poct; b. at Copianic Chili, in 1se!. In 14.2 as me of the leaders of the radicals, he wa hamined. returning in 1 abl : he was elected



 verconare widely kown and very puplar. They are manly in the lypieste. An ellition of his prems, in two volumes,

11. H.

Mathapmies: se Algosquan Fimass.
Mattapony River: a stram in Virginia, which unites with the lammakey to form the lork riter. It is itself formad from the mion of fone ormam-the Mat, the Ta, the Po, and the Ny rivers.

Mallama, mant a-wat, or Maltawan: a fown of Nipis-
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II. 11.




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11. The fiospel.- Ill the Frathers arree that the ajestle






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"hich tivision is contaimed in ch. xviii. \(1-20\) of our first (ianpel: and, lantly, (o) the ronsmmmation of the present era. "r the juldement of Iataly, the ("bureh, and all the hations,


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 nlorned with many logemary additions borowed from an abraty falsified tratition. It alen sutherat matilation in wriber conform to the peonliar ideas uf the different Jewish christian soets. As for the marrative frame of the lirst
 St. Mathew, whalaij partakno of his evane liand labors and

 "If tha historical matter that same methom of systemationd Eromping may be wherved here a in the composition of the -preches: chs, viii. and ix., fullowing after the semmon on the mount. give a collection of arts of pouter: chs xi. and xii., followinir after the ancotalional instrotion, give a collection "f umods of mishom: Wh. xiv--xvi.. following after the eollection of parablas, mbtain a record of rarious excursions Which pecednd the twhente of the discijuline (ch, xviii.) amb the duartare from Galilec (ch. xix.). 'I'wo small details show that Nat law hat taken part in this labor, alirevty wr indiately: (1) 1he sumame of "publican" aded to his name, as wo have seen, in the list of the twe we aposthes in the dirst liospe] (x, i) ; (2) the fact that in this same list, in the fouth coupho of aposthe-whieh couple in all the lists comprises Natthew and Thomas-the mame of Thomas is paced before that of Mathew, while in the other lists Jatthew is plated hefore lis collemgue. It is evident
 belonged, but he could chanme the place of his name in this eondha: and this he did. Basebins says, referriner to his predemessors. that "Mattlew, after proding to the Jews, and atome to depart in order worench to other nations. eomposed in the hamatre of the forthers (in Ilebrew) the (rosped he hand preathen, in urder to till the robl whieh his absencer would lear" ammer his audience." This date is in arcordance with the precerling, refating to the language in whide Jatthew wrole : and it aceomes for the absence in this Gosper ot all "xphamations of Hebrew eastoms, such as we fini in Mark and lakr, writinir for pagan readers. The time of the connowstion is imlieated by lramens: " Matthew published amonir the llanows and in their native tongur his evangrlieal revorl at the time when Peter and
 some have tation mabrase at this trablition, because neither leter nor Pau! foumbenl the church of liome which follows - learly from the dots of the Apostles and the Eibistles of s. Danl. hut they have formuten latat in the epoch in which Irenarus wrote (the last third of the secoml century) the apostolical times. "planed in a erneral way as the poeln of the tommatimen the (horel. The work of Datthew buars, so to speak, its datw marked mits face. 'Jhis Gospel is a divine att an oflio ial prod damana fosmed by the government of fiox. It is (iond himalf who sammons his people by a solemm ultimatum th remgnize .tesus as Messub, and theratens them with deatrovernen if they will not obes. This

 sun of dhrahion" (i. 1), ther . Wesisiah who shatl raise the "throms af lavirl, hiv fathor," amt rederm the promise of the saliation of the wajlal athalled to the penterity of Aliraham. 'Ithin is fartherman the mason why the whole (iosIWl is a demonstration of tha Dhesiania diennty of Jenns; why the live tratts of the history of his infaney, recorded
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(1 Cor i. P3), and thar lat words, "(an ye therofore and teach all mations, thatizing them," "to... of the whole work of the Mowiah. liy surh at land dionl said to his prophe. "The forty years of ren-hatace which ware aceorded to thee (Matt. xaiv. 34) will sman "ypire: an'
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 that none of the thro examedists has raphered the writings of any of the ather in the comperitur of his work. This reciprocal indennanee, which seme bu* blase
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 nizes itcelf is the syirit which, ane and the same pervale all the four bows, The ginture of the divine work. it- his. bory proper, "ac wroten by lake; the simphe, apmaliont

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Revisel by M. W. Habmagton.

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 A. K. Mas:a.



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 wopthy of the :atnatinin if the admitalty: but it was only offor his dath, in litio (Fh, 20 , that the merited recom-
 han wituw. lievised bys. Newcomb.
 trin of the marration of wirgy; b. at heilhronn, Whr-


 and remainal in bitasia through the summer. There he
 thenelh thin a at anderation of the mature and relations
 jost, which aphatel in hiothri- Anmaten der ('hemie und

 is mow know as the dectrine of energy. (See Exergy.) In ther ofare of thin mar the writur presented a determination
 that of the "hation of temperature in air compressed by a dratmbing enduma of mopery. 'Ihe value thas obtained
 "at mot then acorately know. Jiv subsituting for this cometant the swedic hat as ablishol hy the later invertanime of hemalt, Mayer: romit is found to aceord
 sathe of doble conduted imdenendenty and in part simultantenals. Wit puthnowd later. Mayers priority in the tathent if the frmephe of the comservation of energy is
 invertigan- 10 whan the dotrine owe its early development there has beth muth diacussinn. Current opinion of


 "atondent than the tims, alpmarm in \(1 \times 4\), , and embraced a hald atonin of the praciphof his theory to the phenom-












\section*{hevined ly E. L. Nichols}

Mayltald: cily ; mpital of Graves co. Kiy. for docation









bintur of "Mirkor."

of the proparatory starex thar May-fly jasson in the witer.
 little burruns in the silles of the pond or stram in whath they liwe. "The emerging of thene jhatets from the wator





Nay ham [altimately thas samp as maim, fronn O. For, mix-


 anars boty whatay be was remberal las able, in tighting.
 striking ont it man's eye or front tonth wat mathem; hat

 of the like patt of hiv won bolly". "This pratetieo of retaliation
 in cases of mathem by castration: amd the oflenow romamod




 liable to the same juniobment as an atoonjt formator. In the U.S. the common-law mayhem, waless commatted hy



 clared to lee a felonsy. Bislopis Anu (riminul Latue bol. ii.. cli. xxxi.





 Palus and the (tospel of Jobin into the lnclan languaste. whieh he had lowmed in childhoml. Ite puhlished in lize Indian Converts, lwine the lives of thinty Indian proatchors and eiflaty other converts, mal it whame 'at it leal (rrace / ee-

 Mar. G. 1 s0g.



 bringime wat at the Quterns thatiter. in conjubition wits Gilluert a lbekett. the farme of The llamterime Minestrol: foumded a connic jitict. Figmo in Lomolon: wix one of the

 the wrote mamerons pephlar hamoroms mowels, fairy-tales,
 known the "vervialy lifa of the lower colasions of the british
 new ed. Ists), originally contributelfo The . Dorning Chromicle, He wrote laresels for matraines, was author of The

 some years on the staft of Pameh: publinhed somal humbr-
 Three other brothers. Thoms (b) in 1410). Fimwarss (b. in
 some of their literary untertatimes. 'Thosmas was a jummer in the publication of penay erammars, lictinnarias etcos at part of a lamey National bibray: be was also cotito of

 writer of farees in youth. and lats puldinheal sambaril works



La*umed lis 11. A. Jarera.


 town; obtamed in 1641 from the agent "f ford stirling at grant of a considerable pertion of the islable of Manthats


"tree they sot maly abstainol fron joimine ita Philifin war,




 hatlans of Jarthás Vameard.

\section*{}








 Stuljo in Sew York.

Witholas A. Corfos.





 -xale churing the war of 1-til-tia, haviser immellataly whe the








Naynaral. I-sse llontos: juchere of Xiow Yorli court of













 law at the MidJle 'Jrmple: was enderel to J'arliament in



 for which mbaluct he wastwien stat to the Tower: herame














 noratury. (hot. !. 16!11.

Maymouth: villare: in the eomenty of Kilelare. lrelame































 E.





































































 I







labind by A. (ilmomas.

\section*{}






 fire in ahatare of the adince of that day that Dr. Bedelow repuldinlad a eratil part in 1700 unaler the title (homical E゙rpriononts und opiaioms ratracted from " Work publishad in the lat cintury. It was clamed that the chieef
 a "ontury varlier. II, in Lamdon. Sept., 16a9.

\section*{Maypu: S九* XAno.}
 ... Kiy. (fur lnation ol county. sec mat of kentucky, ref.
 ("mot. ralnatr: \(\mathfrak{f l}\) milns N. E. ol Lexington. It is in an ancioultural recinm. and has important mannfactures, in-
 tombley and mandiot-shop products. flomr, and lumber.

 high arlano. \(\because\) mationa! banks with combined capilal of




Mazamot': twwa: departmant of 'ram, l'ranee: on the


 fary lanamet was maty an in-igniticant village, but the in-



 ('arpian sía, IV. lay dhilan, and s. by Irak-Ajami, from
 A-tanhal. 'Ther ermand in law aloner the shome of the sen,
 hroz. 'I'be anil is fertile: rion, whom, malbery-trees,









 athl indlate :








educated in the sthools of the Jesuita at Rome the refusen
 where he led at very gay life: "moted the miltary urvice
 which he evined praal dijumatice skill. He wan inter duced in liex for Richelion, whon ratertainal so bigh atl





 without some wiokent interruptions. Itrewanceaty andiplomat as linhelion, but he was far inferion to him as an Gdministrator, and having to other itese than than inher-
 by his own vaty ant rapacty, his subtlen intrinuta some-
 however, that \({ }^{-1} \mathrm{l}_{\text {a }}\) was mot like Ridheliem, a fromethan, hut a citizn of the world, and alwass gaid mast ittention
 lomatist is to he fombl brad general pirws of polioy.
 characters, chmang direction* when to diseimatate of to be framk." The awriou of Ano of Abstrit-who after the teath of Lomis SIII. May 14, 16!3. hecame ravent during the minority of her sm, Lanis Xlt.-he conquered by his bland manners and derant thattery ; she hecome his firm friend, and the contombary gosip wat that they were seeretly marrica. For this no mpions prof hat bed offered, though the guedr marent was devoted to him. and the minor orders he had arepted wore bo ecedesiantical what cle: but the rich donations be mate in ortar to rain tha good-will of the princes. the proligality of the conrt, and his own lack of thomerh matuity as a financior exhan-ted the treasury. The Parliament of laris minad to reriver the new tax-aliets. Ha mowerd by throwing its prodent and severat of it membersintoprinin. 'The mext day (Ang. 27, 164 ) Paris rose in rebellion, and the wars of the fronve (q. v.) began. A pernlar feature of this whan movement were the st-ealled Muzurinules-pamphats. ahout 4,010 in number pmblished aganst the rartinal. and areaking in a very unrestrained manmer of his life at Acalii. his relation to bame Ame, his formigh histh. his rapacity, and his nicees. He was intemaly hated, and the hatred was mot tempered withawe Twice betwern 16.91 and 16 hat he hand to resign his oflice and retire from the amot-the tirst time to Brahl, near fologne, the second time to Sodan. where 'Turenme anilhis army were. Ho was araigned as a trator and enemy of France; his propery was contionated: lis library. furniture, and taturs were sold, bat after the end of the wars of the Fromle and the llight of the
 3. 16:3) in (rimmp, and was reetived mol only by the king and the equrt. but evon he the poople, with ereat

 Spain. begun in 16:3\%, with molimurbed vigor, amd he the leace of Wertphatia (1ket. 24 , 1640 and of the I'yrenees (Now. 8.1650 he sucended in curhing theth hrame hes of the house of llaphares. and procured for Framee the foremost phace in the pelitical syoun of Eumons. An ther
 tharity of the "rown in Frame. he carried ont with mand erable mecess, but the int rior alminist ration, the finamos. commerce, inhlutry, arpionlture, ote., were in confonion and

 sented to the kine a fow days hofure his death. promathy because be convitered this mandaver the only mana of secmone it fur his family: the kine returnel it gramos. ly, and his nimen inherital it. Mazarin antrihated wre nuch to the trimplo of the raval anfonity in framer, and
 and prividges. The memore of his rival, de liot have contributed lo make hi- charatier darker that it ratly was.
 farorable light unen his pultie life. several volumen of these letters have alrandy allonarel, under the diramin of Cherme. During his life ho was a triend of the arts and of men of letters; his will madr ample prowising for leatuad

 talent of the first order, but he rembered preat serviee to

France, amoner ham being the treation of Wiwthalia and











 city contains the mathendom of the powhet Ali and is a
 kestan, Afohati-tam, ath Balumitan, Tha "jty has rivel


 factury of amse and is the frmanomt randme of an

 tains, 00 miles s., are somm matural watere ephorated for



\section*{Мавк Wr. Ifabrivitox.}




 pace will the regoter: Wis apminted major-seneral of

 Jointed rommander-in-thief of the fanioh mave. which he

 Was a part ixan of Josoph bonapate, hy "hom he wa- matle combelor of state and Binistar of Harine ambl behd the ollows until his death at Matril in 1s1?. Ihe was mand ered ane of the mest sedentife samon whem spain has aro-
 built the naval obervatury at (baliz.
Mazallan': a city mon port of the sath of Simaha, Mex-
 which form its harlwer, and near the entrance to the tiulf

 thantiful, but the climate is hot, and the town in punty sup
 is "fen to suth anel sulhwet wimh, during whid it is


 abont lli, ovo.

Hehbhet II. Shith.



 an a prophet ant for the marnation of mankind. Dlis
 tical tearhing wa a form of commanion. He sumeded in


 cand of hiv follower. but his idean thalderp reat after the riwe of lam in the followine whtury.




















\section*{11,}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
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1.ant I. A. 1-5.5 pul.
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 I. J. Kr.í.




























writer, and the anthom of Thefor Infomion and of Benoni-











 Warlas. Mazani at an warly and tompart with the Car-
 s:an, and imprimed at samba. While there he became
 timas, and la conenven while in prisen the idea of Young ltaly, an copaniatinn which had for its objects the unity,
 cond be ralizat only hy the talian f"olle themselses withwut the ain of the formigur. The means to seeme these "nds worndedarel to lu edneation and insurrection. Aequited by the tribnat, bat fored to chnesc betwen exile and pulion arwillander he retirel to Marmilles, where ho
 nuwaper in its intorest. Comblemed to the gallows by Thation, thert, he wermelese combived to remainat Marseifle and mated with (iaribahdi in phan the insuree-
 Switarland, and there formed a consiracy to invale saroy this was the unfortanate expedition of 1834, in which the condiraturs licineran on the first condict with the tronfs, and Jazani fation away at the first fire. After this failure hat ratued to switzerland where he continued his manhatims.and fromder the journal La Jeme Susse; bint the hotility of fromen fowermments cansed the Swiss antheritios to proced arainst the revolntionists, and in Jan. 14:\%. Mazini withlrew to London. from lamon, which then buame hiv hathartors. be instigated harious attempts at revelntion in ltaly-attempts that cost the live of many noble victime anang ithersent the brothers Bandiera in 1844, lont which wrofent without fruit for the future. It was at this tim. that the Priting gestonlice incurred serions hame by

 by Mazimi and his followers, and thas it maty be satiol that
 bart the work of this aitive conspirator. In the suring of

 (harlace Ahert and the mondate menarchical party. The C ram lhan of Thsomy having beon expelled, an! Mazzini
 to sedure the promanatin of a republie. Not sueccoling in thic. he whthere to Rome, where the republic was pro-
 After the fall of Rame he firs took refuge in switzerland,
 dhe redatims whth kisenth mat Ledru-hollin, for it was a part of hie preramme to encourage revolutionary move
 Whar ratical organzations. framed on the model of toung Italy, almady lome winess to his intheme in several EaroHom states. Ha inceitel the latiams to fresh insurectionary


 1-10 Mazani low mon active part, thomgh he nssured the Garlinian monarthy of rambitiat support in attaining Haham mity and imbermaner. When it seemed to him that the Italim momarehy hand failen! tor atisty the require-








 the whinen and the and of the lataruationals. With the
 abl Habus. Sume of the last months of his lifo Mazani
passed at Lugano, heing alromdy serionsly ill, and finally, in
 eral anmesty removed the sultamon at a anth that hat hera

 Pisa on Mar. 10. 18\%:. Mazainioflom wrol- in limelinhatal in Fremeh, ami his works in both these as well as in his mative


 The most rommalete alition of his works is sorath editi

















 nated by the indmene of combuect but he is a sebular, and
 has had at fuvorable eflect upun his work. We havelrum



 Works, Maz\%oni has aldend seremal work- of latian aththors.
 contributen mach the the Auce Antelogias and ofror reA. IR. MARsif.

 His work is intere-liner in comblarian with that ol Incal

 ism and gemerally of life sige. In the ('hurch of sian (ian-

 In the crybt of the wathentral in a mativity, with fond life-
 and Xajles, abl others are asoribed to him; lut his work
 in lis.s.

 1503: he stumbel paintine with hiv mones, athe at tho :an




















 the firs lialian antist who ctobed hin own mbjote hy this
 inventor.

Mridl [M. Fing. mode < (1. Ving. memen: O. H. (Vorm.
 Welsh medd: (ir. pé日v, wine: S̈anskr. mielhu, honey): an
abcoholic drink mande bermentine a mixtare of homey and





 uf contre bariahbo.
 X. Il., dan, : 14.











 sewral inamotant worlin.































































 wish tumy l..... Th the latter fatio if the menth he wa


















 the hathe of the Wildum- athl tranimated is ith the sur-






















 E. .ej





\section*{Manda lin....}





\footnotetext{


 andmathe ter any trat of


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 than whith lie highe and whith an bever. or anly for
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 the grame of athle. the effer is nemthe same with re-

 of canthe geatly prombo haxamat vatation in miny wather. hat in hat and wry wother it dues more harm than wenl. The dhus when drended on the grase is of lith Cahu compated with what it womb be if mixed with
 If a hataral mealos 小operiotates and the grass becomes
 retorine it, and in mot are also the beot, is to plow it up Whan, and manure it durner a temmer of thlage, withont tahime wey whative rape fren it, and then to hy it down :usain in a dean and enrielod sate by sowng the
 surfan thmothy in carly pring and sin liberally a mixther if eramocel- with a droming of 100 lb , jer acre
 sward is thin 11 i frum int 10 mow before the sects of the -rame are fommil. whtrary to a chmon motion that in a
 hurran the mantur of pats. sum an increase shmal be



\section*{lievised by Il. Il. Wixg.}

Meadow-lark: a liat of the oriohe fimily (Ieteride), havine a hamtromely vatiogatel phomage of pate trown, stowhed wiht dark hrown and bathish. The moter parts
 bremt whim is mordy indieatert in the young. The bird

 it fabmite hants. 'The cavern mendow-hark (Sturnella




F. A. lucas.

Mrathow-salfron: the common matme of a small peren-


 PWalar. Fonn the com of whe yar there sponts anew








 Enwablecerts.











 Th, :



 (1893) estimatal with sulurto. 12, inn

\section*{}



 drawing 12 fort, and hats satw and griat mills amd an from-
 N. W. 11 .




 bat the sentemo was commuted to tranportation fin life
 lectured wath sheces in varime part of the 1 . \(\therefore\) : wa mo mitted to the bare and wroter for the pese ; beane editno of
 major of the Sixtroninh New fork Vommeer: raiow it





 Ment., July 1, 146i.

Levied by Jame Marcti.

\section*{Meal : Se Fiont \\ Meal-worm: se Trexpbra,}

Mean [3. Ving. meme. from 1) Fr. meion > Jir. moyen < Lat. medin mes, median, in the mindtre drix. af madimes

 nectul with them hy anm mathonatial haw. There are
 arithmetical meth, the geometronel metni, ind the hormoni metu.
(1) The arillometied motan of tworguatitios is une-half
 equal to their smm liviled by their number: it is the simm as their averap. Thas we say that the mem tomperature of a day is equal to the sum of the tempratures at wery batar (in minated of the day, divided lay the mumber of hours (or minutay in the diy : and the inan tomperature of a yar is equal to the tum of the mon tompatares of every day in the year. divided hy the manher of daysin the year.

A mean by wethts j . in the simplat cake, an arithnetieal mean of quantitiow which are but all andiand. If ma of
 of them to \(a_{9}\) ete, then the arithnetimal ment of the whele of them is
\[
m_{1} n_{1}+m_{2} q_{3}+m_{3} n_{3}+e l_{1} .
\]
\[
m_{3}+m_{2}+m_{3}+\cdots l_{0}
\]


 not whene numbre.







 amet or.




 rical meane: that i.
(4) The arithmetien-guometric monn is a must of iwn



 1111:111.












lievian lise. Nismons.










 two more remels to join the Kintha, all of whioh wore




 shanisl (ionormment aceded to the hemands of dirat



 ivh Columbat was hasel. He was made a commander in


\section*{Mearms, The: see kisommnemmed}

Measles [ef. lmoh meselh and (iarm. masern, mea-las.









 hrame of the repirathy that. The contagion is mat





 dimes. aparand from one ampher ly momal hin. It apParan frim afow to thirtern dare after the contamion hat




 Er-… dommanal for a day or two. and shmy diaphears



















 110.









\section*{}





























 fatu* b






 all exadoros.





























Fug. 1 Conalarator at libetenil.





fa J"is. : the eml viw of a emmparator which falfills then" ronditions is shown at (b). 'lha' mierosctare-carriage


 eombint with the lace of the rertionl watl tit by menns of






















 standard, wach distame: is thas compared wh the cometant distane betwern tur stop:
 may ter made either tiy means of two mareseopus, beth

 or by means of the -halr. 'lha lather methonl allows cennparisums to the mado thetworg the mant minute sholivi-bur.
 scale that ean be direoty eomphand art about ? inchea loner.





 ithedence is that made with the initial line of the bat (b) bs meaths of (11). 'The mioromenterarriaue is then manall hatek to allow the josertinn of the har mambered (す) and (か) ('mantact of the comb of the har with (1.5) having lexat 1mato, the

 with the temanabl line of the bane. It is evibent that the



 comparisons of the sulnlivinims of the witele ingo ationot parts are ropuiret. Vither the stop methom ar the twor







\[
\text { Fig } 1 \text {-Elernobut of intwerprential comparaton }
\]

Intion poumatric with has mation of (o). 'l'ho platovet


 to the circular frame and thu projeoging sum (b) "lohn dink































Fio 5.-Interferential combarator.





 front of (tis) simee \(t\) was rass which shter interatal and "x-











 meaturent.

Whlity - J. Jen, R-








































































 1そ. 1. 1/EM1 suli.








 privetion datice f1, :11 :

























 if the filtomaly rambary, and in Emeland still hater, antil














 b.hat. 'The tiv-t eylimber wan thrmed hy hand, and the


















 fram time to tinn fir many yate, hat the machine was




























 14.3. It was exhibitorl in lenhlon in l-il. and in l’aris in










lievised lys. Sifwiond.

\section*{}
 anism in whith the simplant posible matrerial contaction between two juinte or surfates is sheh that the artinn of a force appled at whe pebut in a miven direction is caldeal to owrombe a remistame at another peint in any rexpareal
 prower" implies aflos the comblition that an ""alvantare" is gained hy the umb of on of thom rlomentary marhines: or.

 resistance throurh a lese spare. When increase of motion
 may overomme a hese resintance ontiner thromah a wreator space. Where a simple tramser of the diruction ur puint uf appliation of a forco takes place withome any jusaible
 nection betwern the fuint of application of the guntre and resistance does not buecesari]y involve the employment of


 count the mature of the forees which wet hew them. These may be any of the ordinary furms in whish force abhibits

 viz. thit in any mementary mathine the prentut of the force or effort into the distane pa-sid worlas its puint of
 moltiplien by the divtance pasard wer hy its juint uf

 pressure acting on a different surfar. theol the bolmmos through which the two strfares mowe umber the influmeon
 meration of the eroneral primeiple is applicathe expecebaly to hydrostatie taturhines.

Ember thent wabral defintions and combitions all the elementary mathines whel are met with in mochandabl construetionco ve which are emplogel by man atul animal:
 pendins. for the eablalation of the work performad ha the






 in their elemontary forms ur in farions emmbilation

The beser is based om tha thenrem of moments of fores. and involves a rutation of a material, rietid har or form




 ance, applied to two pinta of a levor, the proluce whatiod

 upon the gmint of rutation in the fulerum ant- as athird force, which at any inatant mamainalhe ot har two in "quilibrio. 'I'o find this prosemre in any eriven dirationg, it is
 forces, which act in direetions parallel to the givan haros



















 [लwnr and the fuleram.




 Which cance a slitine of a bonly an an imelimal blame is a







 Wrimptof the haryel from the eromanl to the Watell: and










 Wonmal aremad a cylimber, and itn action is detorminalol by thos satos laws.
















 greatost thert in the difention of the torminal mation.

















surfan of the lararr a- Eratar than the surfare of the







 : , bu3. \(\therefore\) - r











 \(\therefore 1 \cdot-111 \%\).




















The thenty of Amonde, that at buty contains in it melf






























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 X.w



 bution of the print in a rioft lind to a pasition infinitaly wat. projortal upon the lime of the foree and the virfuat


 cequilifriman of as shath uf forres.
liableo atmomarot the priaciple that two forees are in

 low their witatal reweitio. The conception of the parallelo-
 fon-tanntions and relncitios to Descartes, Wallis, Robervil, int others.

S hamrem which has hern most maeful in analyieal in-
 mont text-lwsks. 'The primelule is that at every instant the -ntir" ammant of force appland lo a boly is absolutely cynivalent to the sum lonal of the effects produced.

Whe fropry callad inerturso-viz, that if there be mo eontimmus adimin of fores abon a mass or material point, it - ither fromatins at ras or mowe miformly in a straight line


Tho following are wemord theorems relating to any system whatevor:
1. The वntar of gravity of any sstem acted upon by exterion form moves in the sume bath an if the whote mass of

 10 that print. This therem shous that the motion of a
 of itsernter of aravity rexambel as a material point. As a
 toln firn from a "anmon. It a path will at first be approximatuly a darablua. If it explundes in its course, the resistance of the air luoine left ont of emsideration, the pmoths of tha suparate pioues will liverge, but the path of the common a+ntor of wravity of all the fiteres will remain maltered Tha "xplomb of the fowder, bemir onty an exertion of infornal formos, can wot ator this path: it is only when one of tha ghesw strikos an onsame that the path of the center of ermaty of the whate is changed. n mew externat force beins thus int rolumed. Aphlad tu the phatery system, this Hex, 1 m show that if the inflome of the fixed stars be disrexambed, the enter of eravity of the syonem monst be either at sest or moving in some path dae to forces external to the syotrol.
'l'bu theorm of momunts of mombutam may be enun-
 of mombotum of a sutem in reference th any axis during a Wivelt that is equal th the sum withe moments of all the manalam of the rxterior furces with reference to the same asi- in the same time.
'l'he prindile of the imtest rusibility of foree or the cons.ryaliun of invery be of reoms develinment, althongh dise "Insinns of the shbinet may lee fomme in the works of the





 lawsoll dymanics embra-ine motion and fore foold true as "rlif for the mimute invinhble motions of the particles of fondion for the sratit mases of the solarestem has had a now improtant chece oh the development of the physical neinnors the emersy of a body is mo longer confmed to






limised by li. A. Mobmats.
Marlanics. Inimal: Hat hmmeln of mochamies which fratso of the mamelare fore of ammats as cacred in loeo-
motion. The muscular fare is utilizal through fither one of the elementary mathines or medanical puwns (an Mschanacal Powers), or throngh ample smbanation of two or more of them. 'The emplogment of these mementary
 its reation thables the mathime to act.. la walking on latro
 the simple mathine emplayd when the hong in ranal frem the gromad, and the lowej when a limb only is raisall in movel. the earth furnishing the resistane in the tiret ase, and the boily in the serond. The Lreatext eflom of an ani-
 cation of the jrinciple of the leser involvos the ramequane that the bones of the limbs in thea aftopts sustain great cross-strans, whin tran theiratrathe they are mot rallolated to beat. The bobers of the hind ley of the home for instance, are armared as in the ensraving and whother in leapiner or in hanling a hom (or rather pushane at lom, lu-
 heing attadeld the shoulder), the aetion of the mosedes of the hinder parts is tuatraiflten ont the links which fom the himd legs. The ground sives a point of sapmort, bat mat a fulerum in the semse of the herer: and insteal of the \(x\) rata est effort being a cous-hreaking effort, it is transuitted through the axes of the bones, in which direction, as short
 When the limbs are raied from the ermmithe bouly ands as the point of resi-tane and the bume and क्merally an levers; but when the gromel forms the juint of rasiatane the principle of the lever don mot firnish the means of cateulating the "foot nemssary to elevate the weight of the bady. 'ithe jointed whatruction shown in the sketen correxpmots to the device known as " hay tongs" in meshanica, and ant= in the same manter, "xeept that
 When this syaten of juinted link is extomded to maraly a straizht lime, a very Night muscular eflout at each joint transmits a prowerfal fore throngh the axis of the extended syom in the direetion of motion. Swimming animals unably make use of the "inclinet plann." combined with the lever or the jointed links, althangh sme animalis, like the entilelish, make uee of an apparatns which involves the principhe if the hydrestatic press: a quatity of water beine drawn into the luxly liy atarge onemine and

The operation of 1 yiner is neaty identical, on mechaniacal principles, with that of swimane, the omly difternees being thuse which ariee from the laseer density of the madium in which the motion takes placo. In many motions of animals the inertian of the bondy or of partion the benly ate as an instantaneons resistance ly which the mation is ateenplished.
 of the badies and extremities of amimals. hate has mate the subject of extembed exprimunts. and haw been fally treated
 movemente or the laws of the fores exerind have received less attention. The lattor study is the more impurtant, as
 on their monle of progrecion, and the fombitinns mater which they are ohligent to move from phat to plate on the
 cape from their enombe.

The genaral haw that in anmal lommotion the wame elcmentary mathines are emplobed, and harsame mowhatal
 man, furnishes the basion the stady of animal monamints.








 (1880) 3,018: ( 1840 ) 3,649 .












 limen thatid mal of oher artiols, a national thak with



\section*{Mrelitar: Sce Mikntar.}




 aceral other charatinalal intitutions. Ita cathedral is a


 In the fomponth centary it was ond of the manafacturing


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Mecklenhmer Declaralion of Indelwodener: a sories


 restutions cmanand several phases ahmist of guito identiaal with furtione of tha fanmens Dowlatation of July 4 , 130. Wefure the pablication of 1st: the ereneral pablic
 they were widely cophed thenghont the comatry ath ereryboty began to ank quations. Wia it prosibe that weh a scries of resolutions hat admally bew pareal thatem mont las before the beraration of July t, lain, amit that the
 John Ahams who tirat lemaed of the rembutions in 1 ald decharad in a letter in defferan that if he had kmown of
 with them, and that they woml have been palidianed in every Whise nowspare in the mhonies: and dellaram in reply expresed his -arprise that Alams shablat not have sech al a glance that the pabliation was framblent. From that day to this the ghemtion as the whe the the restutions were athatly pased he the eitizus of Mathature has


 ity of the pople of the state that the claim wan wahtioned.
































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1. MK゙心rr.







































 He wher reman is gixen for the wetan whon an the mentime


Whelarathon apdics far more promontly the twenty reso


 latime wore immentandy phli-hol buht in the North and in the -unth, whin the berdatation, thand of a more im-



 tonk the wath of linaty to the king and in the Provimial Comgrea expeosly diaclamed the intention of shakinge of
 sais that the dise reshations conataning the Decharation hat bord reprontured from modery fixe months after the baming of the reonds in wom, nor is there anything to frowe that I. Mcknit1 Adeander had ever refremed his
 twate-fise year that hat chaped sine the ir pasage
Than finci-reperat that a small protion of the evidence




 trr. ser the thllowing anthritien: In addition to The Narth

 sutpect in wery fully preated in the following works: Froth-




 its Mrigin. Mistory, ant Actors. with " libliogrephy of its


 at are of tha subjere. The Illustralice Documents, printed and in Ms., wonstitut nime volumes. ('. К. Absms.
 Lram durhy of Nurthern Comany: benmded S. ly the Baliic, and E, S., and 11 . Dy Prosia. Area, 5,133 sq. miles.
 they will man mathe in their features. The ground is low and lewh doted with small hakos, and covered with lorests. Ahner the shore of the baltic the mil is samdy or marshy, tut farther inhand it is fortile and well suited to agriculture and faturaw. The princijal erogs are rye, whent, barler, oats, puaterso and hats. Catthe and home are reared and,

Mechlemburesterlit\% -stain lits: gramh duche of North-

 hare, betwern Meflomhur-schwerin and Lanemburg. The lotal area is \(1,1: 31\) si, miles. I'(1p. (18:0) 97,9is. Capital, Xen-strelitz.

\section*{Meroptera: Sie Fexmmonat.}

Modill [fomn Fr. mideille: Ital. medaylie < Vulg. Lat. *metnl lef, diris. if methllum, metal. Sie Metalbergy]: in the usuat senct a that metal disk, stamped on cach side with onn or more inseriptions, and offor a figure or group, the whold in luw-rethef like that of a roin. Although sueh medals ane roimete, in the seme of heing struck in the coin-ing-pros, they are distimguished from rains in not heing



 ib renenition of any imputant went, as a treaty of peace,
 Fannate, tha completion of a public building: or cyen the
 Lut at tire of andon in llifit. In the Pario mint (la Momaie ar Cllatol the Mommens, wn the (Qnai (conti) a very large collation may 1 we an of the modiks atrack in that institu-
 rish of lamis XIS amed menty as many wor dovoted to the trimothe of infuren 1 . dirine the brief period of his [",

 "has. "ameng. This laris mint is the enter of artistic
work in die-sinking zunt meduloroming. Many artists are kept busy there, and orders are sent thither from all arth



 of suctes or favor, prize at an exhibition, what rewarth, ete, even when not ornamentel in relinf, ir werl when mot of metal.

 commonly, a llat, circulatr work of att of any surt, com if several feet in diancter mal carwal in mande: and thimes. any piece of urnament masinting of ant intupumbent homign isolated by ita own frame, within the bombo of a larger composition (sen below). In the first sume the term is athe






 general popular inspedion. "Has the areh of (onatantime: at Rome, is denrated with ten bus-roljefs wilhin cirmar molded frames abme \(x\) feet in diameter; righat of thene which are wencally thuytht to have been takn from an arch of Trajan ma longer existing. whement acenes of the imperiat life and ceromonial, very math the same sones would be represented on at cimed medal of unamal finish and claboration. exempt that they are in histher relief. At the time of the Renaisane a similar decoration was used in buidding: thus in the curt yard of the Palazon liceardi at Florence in a hand wer the arches of the gromal dowr, are eight disks sulptured by Denatolla, atternating with others inclowing armorial shiehls: but in the thirel semex at medallion may he of any shage sture or oblong, or ara irregular. Thus. an an seres vase, a painting with tigures and an flathrate landseape backeround will often be inclosed within a frame of the en meral shape of a traturanal. the rest of the vase beine deematen with simple giling and seroll-work; Gut this paintitur is spken of as a medallion, or as being in at medallion. In carpets which are woren in one piece and russ. tatherenthe. ofte, there is wery often a central pattern, botwern which and the border there is 1 foft a space sumwhat less richly ormamonted : this central divixion is spoken of as the melathon, amel a carpet of this kiml is often called a medallion carpet.

Rúsabll sturgiv.
 beautiful daushter of Fijter, king of colchis, and Hiceate. the sister of Circe. Both mather and annt educated her in sorcery, in which she attained great proficimey, hut beiner kindly disposed, the used her linowledur to bring to namelit the fians of her teachors and exerted horsolf especially to
 that she might llethrume him, imprisonmar. hut thanks to her maric peowers, she casily "sealpen, and fled to the trmple of the Sun, on neutral groum. It this jumeture Jasmand the Argonats same to conchis in seareh of the thomex
 it possible for him to ind and carry of the finden Fleme. At the chase of her "areer in (exinth she lhal to Whans. where she marriod the aund king diceus and howe to him it son, Medus, acenting to ane myth. When Thesent hat eome to A hens from Trazan, she photed his death, hut was finally fored to flee from then*. she raturned on
 restored him the therone. How son Merlu* became the eponvmons hore of the Medes. Sommine to another myth she fled from Athens to Phomicia, marria! tho king, and begat Medus loy him. She at hat hereame immortal, and
 ously thad. and hav furniond whin material fir the artist and the tragalian. So. the tragedy of Euripiles, entitled Medea.

\section*{I. R. '. sthereтt.}

Medellin, mednderen: capital of the hartment of Antioguia. Colombin, aml. with the exee ot ion of Benenti, the largest and most inportant rity of the ruphlifit... It is in at beautiful valley (ineurrety (alleal tha "'añ"), wateren

 America, ref. \(\because-13\) ). His well lualt, with wide and straingt slrects, and has a delightfal climate amb an ahmodant watersupply. The inhabitate are noted for their intelligeme











 11. 11. Авाти.



 It is the seat of Tuft- Collowe (Thiversatiot, chartored in


 fublie litrary print and lye works. presen and face brickWork, bas-foumbry, carimefatorins. and paper-mills.


Fhator af "Mertra."






Med'hurst. Waler Hexry : missionary and linguist : 1s.




 remarkable knowledge of the (hinese, dapmese, and Java-

 (hinese and Einglish Dirtionury (e) vols. hatavia. 1*42-43), amd many ather linguistie works; wrote an f feront of the Mulayma I rchipelayo: a valuable work un rhima, its Stete and Irespects. with +special reference to the Diffusion of the Gonget (1w), followed by A filance at the Interior of thine (1850): and transated the Chinese classice called shate-himg (1845), bexildexumernus minur works from the Chinese amil other (ariental langrames.

Módia (in (ir. Mndia): a twritory of dsia: bordering N. on the 'aspian suct, and bermaled' on the other siles lay Parthin and Ilycanis, Aswria and Armenia, and lepria and susiana, correpmoted hemrly to the preant ler-ian
 The Mentes were ansely allial to the Persians in lansuare and religion, and they distingusheal themelves by their horsemanshig and their skill with the buw. The original imhatitants of Media were called Aryms, though the nume



 are in league with Nathlulamat of Babyon. tow N Ninewh and overthrew the dosy rian empire. The rewolt of the bersians undur Cyrus broight the Median kindem to atn "mb.

 produced abmotanco of froit and horsce. Tha grane if Edhatan (hamadan) are celdrated th this hay. The inbabitants of Madia wore wordhipurs if the sun, and their









 (16:90) 9.736.

Madia. or Medials: in plandice the wicul mon-inpirated explosives ! / \(1 . \%\) which are distingninhend from the





























































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 dolotur. 1 -prath habmize a nasy fri-tiont-part will to
















 battiof bert arat value which remains as a mommomet to



 ley atomtandien of the muncles it suphtios. 'The theory of - ifotontomas i- hased upan the following facts: If a porion of al butor mero is included tedween the prose of a galvanic

 dinamishod, while at the nequtive it is excited and more - antertible lo stimmlation. The combition at the jositive fuld is callad andectrotomous, and that at the megative cate-
 mernise the cothonde, and lice rive the names to the siates decerifnal. I werve is salid lo be tetemized when the muscle
 Hantion ly a rapidly intembining current. 'Jhe jassage of at mambar of thow show- for shme time will diminish the irritability of the morve turn an extent that finally there will he mi farthor resume. 'lohis is a valuable fact to eom-
 but carran, i. 1. a chatent rumbing towith the spinal cord
 scombing onc. 'lhe stmalns is felt at the negative pole when the corrent eommencos, and whon it is broken it is fell at the positive pule. Greater spasation is felt at the nowituc phla, and with very weak earrents no sensation mas ln telt exept at the berative electrade when the current is stated or opend. With stronger currents sensation may be folt at discomtiming the enorent and at both poles. With rery simner corronts sumsation is diffuse, not limited to the reminn to which the electrode is aphled.

The action uf the famalic current unon the surface of the boly is probah!y the same as that of a galvanic, except that it is a monnomitry show instead of a constant current. It dons mot alle the deefor museles mor nerves as moch as tho shin. When atn elictrome is applied to the moistened Win it is [allumad ly prickling monsations, attended by redness and thatimg. The facolty of preeving sensation by the catimenns moves amb musdes has been ealled the electromusculter susibility. The sensition produedd by the gat-
 lows the aflliontion of bocil timulants. such as liniments or a mandad flasior. When the faradie current is ajplied to the sin prositualy dried, or when the electrotes are lightly hromernt in ematact with it. there is apmeciable pain proAbted. ('ntamons sumbility is more waggemted by rajudly suceneliner shock-fona a farmic instrmment than by slow
 than the fanalic. If likewine jromuras electrolytic changes which do not follow the ane of the farmbic. 'Ithe effects of the galvanic curvon bron varions patts of the body may be
 tronder of a hathery of moderate strengeth to any part of the



 throngh tha lames of the eramimm has been donbted by C'sun amb othor writors, thomah othor physiolorists, Ziems-


 dinatan of the brain, bat there is at the present day no lownt of thivat all.

IWefrimfy for the Ihrymst of Ihinmosis.-By it we may
 thmilions. anambunia and jaralysic. We may sometimes








referene to a few morbid eomblitions will matko these fands

 tility oftentimes when there is paralysin of the manclac.

 destroving its comductivity, are assarithel with lam of reaction.

Galraniom and fatulism are umat for the reliof of pain











 of paralysis in which faralic curvonts will promare no mancular contration, while the gatsane current will he follownd
 kimi treatoment is heran with the matvaice emorent, amd
 to use that cenrent which prohheres the maximmon ol muscular contration with the minimmo of pain. In cacis of
 use any electrical oreatument for the muselew in the warly
 The forms of patralysis from all ramses. whether they low

 by diferently shaped instruments. Fhere are ehe podics fur applying it to the vocal corts. to the matathe of the arthit, to the ear, lo the stumand. laryma, hadiser, ete.


 by pain. lonms of hystoria are partivalary under the sum-
 fited to some dosper hy buth earrents. little eath be salill of the value of eleotriedty in the troatmont of skin diseases.
 those repurted are malnotiodly dae for the men part lo

 tricity has been usel by Simpon, 'Thomas. Whtmis, Warray,
 tractions. A most impurtant usia or aleotriodty is its appli-
 in diferent parts of the bumbe.
 with needtes, and these reedlos thrust into the tionos of tha


 hreak them down. so that the disinterated partices may be taken up) in the (oirenlation. At the pasitioe, "xyonn is disengaged, which forms an acol with certain clemente of the ti-sues and the alhmmon is anarulated. forminer a elot if this happens in a carit! filled with home. W゙ith this monle

 the remosit of small hairs from the lips wh women.

A platimun wire plabol hel weon the pulas of at penwerfat
 tive fore will berome in atory fow minates white hot.
 place of the knifie or feraseme in mathy suratal operations.


 trides, abl it is very valuabla in ceptain utarine gerations.
 avoid applying strome mironts to tho home It is umdvis-
 then very carciolly.

 in the fourtecoth eentary lowame prominemt in fublice af-




























Medicine [from Latt. medicime (se, ars, art), thw art of a








 manitics. Henme it was pardionl, as it is lo-day in harbar-











 mild antiphlomiotio motastres. The methonlical staly of

























































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 tablinhat hath in burone amb in America．buring the

 Lations，：the frum hasis of the treatment of disatase，las thatily incomsal，and warmats the belief that we are
 deoighaterl an ara of＂rational empriomon＂in medicine．

 lincerommot of the laws of life，of the fometional activities Which ranatitut．hanlih．and of that perversion in disease．

 are hollds af ine exant work and progres．The physiond ex－ platalion uf the ehw．the study of Jright＇s disease．the
 ul mamy if rat mast dixebsem－matirnant pmstule erysipe－ Jan，thln＇roulncis，totants，and many whers－an the presence
 asconto and antinegtio methons，the elatwration of the spe－ rialth＇s．are sumbe of the many rentits．（＇orrect and intelli－
 an acourate hombedge of the physulagieal effects of reme－

 tive innolatajns in a brillant anticipation which may pos－ sibl！be palizent in the fithore．

Smoner the lari medioal tictjmarios asailable to the







Revised by doms Asmmerst，Jr．

 on thr（＇analian l＇acitir latway，lifo miles W．of W＇inni－

 Landid．Thbe orimin of the preatht mame is not known． In the viounty aro lignite benls ami the jetrolenn distriet


\section*{M．W＂． 11}


 It is in an arriantamal and stok－raising reqion，and has


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 Frarest foly，whith in fow foblowing seat was merged in









 in-ehief.

 sia and Arabia, rof. (i-11). It is a hamlvome, wolt-built town, situatal at the mbere of the grant Aradian lawry om the east side of the momatain range whioh rum N. and S., parallel to the leed sina. It is premetod hy a - tobse wald




 the visit is conablered mot incombent, hut only moriturions Near be aro the tombs of hic danelator loatinat and of the


 day-was harnen in hom and rebmilt in lisld hy lind Bay,
 Mecea or Dedina has the greater sametity. Mondima has ninety-two mam, all reforring to tha holy varameter of Mohammal. 'Mac imhatants are interligent and sedate




F. . 1. (igomyrinole.

Medina: villaqu (loonted in \(1 \times 0.5\), incorporated in \(16: 3\) ) : Orleans co., N. Y. (for location of count y, sump of New Sork, ref. 4-1) ; on Oak Oreharel creek, the lirie ('anal, and the N. V. Cent. and llad. Riv. Ralload: milway letween Buffalo and Robhester. It is an imperant agricultural and orcharding confor" containo to parmes, which show rame
 clurches, an atalony with library fommba! in \(1 \times 50\), several

 las a State bank with rapipal of sion, hom, a national lank.
 ( 1800 ) 4.19? ; (159\%) estimated with suburhs. ., (6mo.
lidhtor or " likeondr.
 (). (for loeation of comonty sete mand of (Hion ref. 2-(i); on the Clave. Jurain and Whuel. and the l’its., ilkwn amd
 eral flour, siw, and phaning mills, fonndry and lembling works, bshlow-ware factory, and at large manafachory of hea
 000, a state bank with capital of sob, 0100, ant a momi-
 (1590) \(2,076\).

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Medina, dosfó Marla: peditisian: b. in Inomaras abomt

 ported by the intlumere of the Gutamatan monnorvatives, he was clected president of Humburas levo 15 , whit, and re-
 but the country was bramotht to bankruptog by with timanciering, and probatly parnlation in commection with ther seheme for lmiding atn inturanato railway. There was a
 vador, and limatemada made war un lhonduras: Malina was defeated. and in Angost wa- leparad and impmianoll by hin


 combemmed to doath ly a court mastial, and bat at santa


Medína-Nidu'nia: tuwn: in the prosiane of fanliz.






 Upper ligypt, dating from the fifthrentury, whilt wate it-
 larger one datas from tho imathtoll dynaty, and wa- in-




 are impertant to the hotery of tar time. "The smatler






















I*. \I. ("ol, Bx.




 ishand surfact. It has a vory irmerulat shape, forming many









 two by a shallow raton butwen 大icily and Tonic. It amm-
 stantinophe. atul W. with tha dtantice throngh the strat of Gibraltar. I - tromer carment set-inta the Meditermanan in
 below and at the sides the comrent is motwart. "l'ha- I Mardanedec corront is abway lowarl the Mediturrameats. It also repeives the watere of sermal large rimer, the Fihro.
 phace in the Maditramosin than in the Athatio ur in the Bhack sea, owing te the hot winds which bow over if from
 the cold wimbs fron Surthern Eurene from rowhine it. The temperature and saltintes of the whter- of thi= seti bary








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 If the tanty turluw the herad.







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b.ancur. Imint

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\section*{\(1: 1 \cdot 1 \quad\) ?n: \(1 / 1\)}



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 form and charamer te hafteront parton of the spiand cord. In erompal terme, it may tre sath that the emimal cord is made





 have then arifud oft the followine external apparatuces are pravinul: The alindrical outline of the orgat is made
 curd -urpmind ly the midale corsital and the lowest dor-
 ment- Ahong the entire lometh of the front surface of the cond runs a line a hap mark, which after the removal of the fiamatur is semblot a rall fisure or crack which pene-
 hatbes. This, the enterior methon fissure is fillet by the
 liranchos. On either side of the anterior median finsure very mumpons dolicate lumbles of neryes arise from the spimal cord: than are the anterior mots of the spinat nerees. The median line wh the priterior surface is not by any mems so distinct hohime as in fromt, and it is impossind to demonArate : Ansal tionme withmat bupather the tissue: the apation betwen the hatves of the spinal eord pateriong
 calloel the pantorem methen stptum. On either side of this are araneal the pastorar rome of the epinal merves, in the same maner an the anteriot. The amterior and the pesterion

 reptoma the pinal nerwe. Just lafore joining the antorint man the tus
 andling-the gme atimn of the" l"ste fint ran. It the "ゆmp part of the - Final cmat the aris nal morem i-ult.
 1"tint atroctundiay - the lwed of that Misun in the entrl. twat in the lamerper
 :romil for tatue luftipe mand ine thoir ramalo of Malt. Pramewn
 What the whate and


Vic. 2 tatur (aner- in lla Eray mathe "urywhore cecert at a very narrow pmint behind where the pray matter rewhes the pia mater. Phis pirmine of the whit - ntatare by the gray enaldes us to di-
 -the smather situath hathan hare the peint of gray mat-

 if the |unt of eray manter and extanting to the bathon of


 The tipn the lateral part- of the H constitute the harns of the zray mather, and the amberting hedge the apay comThe anterim lown ame larger. note rombet than







creasing delicacy, the lather iscontinmons with a merve-titner, the axis-cylimer of which it becomes. "Ine majority wit the
 anterior horns, athourh some fiber immonded within these





 gray matter, nearly wh a label with the ewnmassurn: these



 these gamplina-edls: the rumbets "मlater the white mater a little to the inner sibu of the paint of the puntwriur horns. and send fibers in several limentions-into the pomeriner hom,
 tral parts of the spimal cord wonsist ul an anterior rommissure, lving at the bothon of the fiscurw, and compusat laygely of medullateal nerve-fibers. Juat butek of this hamd of white matter lies the gray commissure, the center of which in wecupied by a round or oval holn-the ewntral cumal of the spinal coral-lined by colummar epithmbal cells, or filleal up by their debris. "Jhic samal extembs from the lowes umi of the eord to the fourth ventriele in the mednlla mhangata, and is the remanis of the primary neural enabl of early fotal life.
Physiolog! - Drimerthe dirst wonty-five yearsot themineteenth century the pinal cord was lomken inmon as a humble of nerves extumbing from the bam to the extermal farts, the brain sembing norvors force through the passive cord to


Fia. 3.-Trmasverse suction of spinal cord from the corrjcal region :





 substantia gelatinosa uf justerior bora.
the maseles, Later researohes math it invilunt that the mond posseses implemement endery which indmbe all the attri-



 the complex nature of the fumtion of the comb mut he



 ridnry of the buly reach the (wral be the prexterion ropta
 or indirectly. minard the the premplewnere in the hatin. If we imarine the path as whe whtimum mervititur, wi should say that it exteml: from the right foretinger to the









 the loft brath which peredive and apmedith semations. Motur ercifutions or impulas pursur quitr a thifment murse. in an inverse lirectin. A monor implan destined to move the right forefiners sarts from thu left sille uf the hrain. descent- thromeh the left half of the basal parts of the encophaton, antil it rathes the lower edge of the motula ohlongata hear ite jumetion with the sumal cond, whe to
 the spinal comd, domol- in tho right half uf that orgam. issmes wat of the right antotor harn, from whith mome the
 tion of the mandes whith move the right foretinere. In


 illuatration is a whatary motinn-m, sartine from the


 for refles motions. simple and monimine pren of this










 ampor of rathex simal atione in hath ate fommen the in-
























 1.r:1 \(n\).




 nu*







lituinetl hy (i. A. J'thrand


















































 at Aralepthe of Sump



















 Sis. 30, 146is.

 an carly are intreated in the staty of the xilurian fossils, whithare veryabandant there : at majority, ensaged in com-
 In 1ate and 1at! he was emplosed as an assisant in the

 ansistant of lofof. Hall at Allans on the palarontolagy of New Vork. an! meanwhile spent two summers in commetion
 sintad by lor. F. V. Hinden, he mate a valanhle collection of sertehrate atwl wher fossils from the S/emewises Terres
 his rewhome in Washinglon, I. ('., :and devoled most of the time whilo liviner there to invertigating and reporting on
 dituns. 'The reants of his labors were hargely fublished juinty with others: his minur banors un palarontology and

 Ticticery lossils uf the Lpper Miswori ('ountry (Washing-
 smithenman lustitution.

 lario bann, mersent: a eumput mindral with a smoth sur-




 pratipal מ- however, is as a material for the bowls of tom


Wrurit. ur Mirat: one of the seym ureal divisions or





 hasar wer the maraly terai at thag hase intes the doeb or










1. II. 11.















 will of Artaserxes and, thang hi lifu wa- - mam, bu was


 in the illantrias family of the Ahemamidite at Ahem-(i)











 side.
J. R. S. Stratit.





 resented hy the mum smaller gartishers of the \(\mathbf{l}^{\circ}\). S.

\section*{}
 claw]: the foncrice mane of extimet buaternary mammats

 and named hy Prowinent ladferson in allasion to its hare

 the lengeth of the haturns of the sameanimal. Its momains


 orear in south Amarica, princijally in the smatiern ant.





 wompact state, therehy forminge a bolwark againd sparta.










\section*{hevisel lis o. le. s. stmatr.}

 sion to the relatimely lare wize of the ey.
















 namber, and the ramalat wimatm at latwon thirs and
 structure of the fore limin is minnwi. 'They wera, homever, small in cumpari-u with the hind limbe. la the perl-
 front. The lower margin projects in thak, wromerme
















 Negantie lown, at the N...f the laker, is a stathon on the © 'ma-



 natoe of a bamily of gatlinamens hird when repromata

 (1) the faramin (facide) of south America, and the iwo form the gram, Peristoropudes of lluxley. 'The differont types of the group vary much in external almarance, nomse






 anturin: the tared marmed: the himd the on a lesed with
 The ditheren form- diff randiderally in hation but are all tormetrial hirels: the Tallegellume livi ins -mall lank-: the
























 ath of dhathater the dimat．Wha became monareh of syria．





















 the extince family of lidntatws．．heytherialter．＇Their ros
 and indicate a furmor mand greater develomment of the or－


Mrathurium．























 whide ranhe with erval zped up the river and is much hrambed he buatmon．An wansinhal storm wave，due to
 －int was in 1 iti，when whole ishands atm the sca－face of the matalaml werne shbutered．comsing death directly to about
 inlands somdwip and I Iatia，and indirectly to about as many mone by the chalera and other discases realting from it．

Mark W．Marrington．

\section*{Mestim}

\section*{Sere Mans．ant：}

Melermet Ni Pashat firs Viceroy of Finght：b．at Ka－ vala．Varapam Torkey，in 176！；the fonngest of the sixteen ＂hildres of lhrahim dinh．an Alhamian otlicer in the Otto－ man survice．He healed the contingent sent from liavala （1）asolet in expebling the French from Erypt．and having survivel the land－hattle of Abonkir（17at）he was appointed binhushi（colomel）．Suedily othaming asembenes over the other Abmians in the army，lue durime the next six years， phramed a comber of almost buparalleled emming and dipplic－ it \(y\) ，opportumely betraying decejving friend or foe，invaria－ lify remping advantage from every dissension or intrigue， andoit！manipulatingevery foreignand domestic interest and faction，until in a rerolt of the Albanians he was proclaimed， ＂stcnsily aramat his will，Theroy of Frypt．In this office
 next forty years his jorsonal history and that of Egypt are identical．＇Thu Namelukes were the sconree of Egypt，and it was imposibile to erush them by war．He solemnly of－ fered them his friemdship，wathered their chiofs in his pal－ ace for a treat festival of recomeiliation，and then had more than \(1 .(100\) of his guests massacterl in a harrow pass on their debarture．Similar measures throngh the land amihnated the Mantuke pawer．He then orgmized an army after the Europent aratum，erushed the Wibhalees，who hat seized Deva．and sent their chief．Ahel－Allah－Em－Sonond．a pris－ omp lu Censtantingle（1N1N）．Ordered by the sultan to ascist in puting down the（ireek revolution，he was able （ \(1 \times 2 \cdot f\) ）tusum，under his som Ibrahim Pasha，a fleet of 167 vasuls，carying 17．000 men，aganst the Peloponmesus， whill was subducd．but the flect was destroyed at Navarino （1が）．He eonfisated private propery．gained vast reve－ nues from trathe in shes，and hecame practically proprietor of biryp．which he somght tudevelup to the utmost．that he mirht he able to mantan a fowertal amy and become in－
 amblugra，estaldished some schools，and sought the friend－ ship of the fomern renilents．A quarel with Abdallah l＇ashat whe domished a protext for the invasion of Syria，

 the＂xpmbition．Was som teritien at the rapid progress of the 以上ytians and ordered them to withdraw．Jehemet Dif．refoning and lamanding invertiture as governor of the joint Syrian fanhalics，was hacelared an ontaw．Othoman armios sont tu entore the sultan＇s will were dofeated at Iloms，bailan，and Kombeh．Great Britain amd France，
 yiohl．Moblemet Ali atread la vacmate Asia Minor after
 the bincoman puwers intrignod at both（onstantimople and

 tho Ollman ammy was destroyd at Nexib．Anstria，Great
 watad the vicoroy to amonate Arabia and Syriat withon Wh days．＇The foir powers imped to＂nfore this order，


 whinh lat him mothing sine the viruroyalty．＇l＇hat was de－







Fi．d．（illustenor．

 in hamble（rimamatanuen：wat in late to laris with an











 Geman orgin．Hewas for ammber of sam in the surver








 expressing whe erath skill and lidelity the life ath that－
 1sti？．Mait was bever a particulat fabenite of the pablic． He lacked individuality；also，partlowing to furerts，ha



A．C．Contane E．

 1817：was educated fur the＇huredi：was ordated aporat in 1540：hath varma minor chares，and was in 146？ath painted Profescor of Biblical Thenderg at the Sompana：in 186：3 vicar－sencral of the diocese of Paris：and in \(1-8 \mathrm{~B}\)


 fulé pur les lintionulistes－ 1 hements（1syis）；hes limanyitrs

 et lhomme primplif setom la Bible（1ves）：Instructoons ef
 Xlll．praciticatour（1sati）；Shlomon，stan righe，ses ferits （1）：MO）：Le（thrist of r．Ancion Trstument：Los fropheitos

 Jan．勋，1s！it．

Maig．Combes Deleqeys，M．D．：obstetriciam：bs．at
 degree from the［＇niversity of lemnsyania \(1 \times 1\) ：setton in Philadelphin in 141\％：mathe specialties of olstetrical practier and the divase of whmen am chidren，in which he mopured athog reptation：was a professer in detfrom Dedical Colloge 1all－ti｜．Ha wrote neveral profesinal

 bed ferers（1s．a）：ho mado valuable tram－ations from F＇renth medieal litarature．In was the athere of a Vemeir









 Nur． \(5,1 \mathrm{sig}\)









 gaten in the comtration if Fint lataware of the I Wa－






























 army，juat arrival from hatanta，and in Harch，at（iolds－











 in list：Dermom a lawne thore and was math pagatud in






 ment durige the war uf 141：－15．II，at Marmeta，M．，Mar．

















 many writhes are frogmonte fomicurn fintorum－







































































































 furndat the fall ut blareitaru，and exeroted there with Maxi－




 nawibn of Prasto．Hhe is lan known as translator of





Meh＇hilar，ur Mrehilatr：lhe foumer of a congregation







 nople＂n ancomat of the possentionson the Armentan patri－
 the authutite of tha l＇metans，what that time held the comatrs．he fombivel a monastery．lixpelled from this pace，

 of san lazzaro．he bailt a new monaslery here（171\％）．I）．in
 iner the Srmanian and Roman（＇atholie Churelaes，the Mek－


 1s a liak of int remmmanieation，bowere between their na－


 rogn．and many of the bust products of European learning

 arminion de l＇ile siaint－hazure de lomise to sur lu congré－ Whtion mshlateriste（Vanier 1sti：3）．
lievised byy．S．M．Jarkson．
Meh＇inez：town of Muromo：in lat． \(33^{2}\) se N．und lon．





 of ite inhahitants are connmeded with the court of the sut－ 1ab．＇J＂he town was formerly calleal＇rakarat．Jop＇esti－ matad at－ 0 ）（0）

Mulong＇：river and town of Wastern Siam，Thdo－China．






 low tha town is a trotyir fort．

11．II＊．II．
Mohomer，Mrihoner，＂r C＇ambudia：a river of Sontheast－






 fancolit．de，frum whith puint its rourse is fally fontilied．

It passes first is to lat，20，then le．throurh buang Prabang to about lon．10：ho，then aghin s．to about lat．Is ㅇ．．

 tary is the sumum from sian，in atome lat． 1.5 X ．Bow
 racts which mate continnoms navigation bet wern the lamer and upper riser impasoble．baw the catarato of kiang marigation is poxihle without intermation to the buenth．



 At the juntion of the Mekomgend atlucht of lireat Dakie is the impertint eily if l＇nomol＇enhe and it is immodiately below this city that the 小reta of the Mekong herime．The
 the marshes of Coxhin（＇litha，ant emption into the wem through four great monthe atha imametable smatler ans．


 length．The arran is called by ditherent manco in diflerent parts of its course．It as the Niandu－chat of the Titurlans．
 mit of the Burman Lans，the Kien－long of the Siamer Late，


 N．is generally raphl and 1 mondent．Belnw Kihnor the tall is so slight that the tidas are felt as hish up as l＇mom－Prohs， and somet imes to the extremity of the tirmat ake and the foot of the cataracts if khome．Se Daserdin＇s Missions dh
 （1873）．

Make W．Marmagos．
Mekran＇or Makran＇（anc．（ivedrosio）：Lemeraphical name
 chistan and Southeatom Porsia．It is an aril and dowlan．
 ning paralled to the coast，withent pernament rivers．Flas climate is hot，and serere fescers ate emmano It is wry sparsely inhabited，amb is ahout equally divided betweef Baluchistan and Domia．It is indabited by many matally independent and joalons（rilnes．
il．II． 11 ．
 dourished in the first hatt of the lime century of our mat． He was the first lat in writer whe enmperd a firmal tration
 still extant，though the text hax sulford man．The first edition was publiched at Xilan（14：1）：the hest editions are




\section*{lierisen by M．Warres．}

Melamet．Vavid：compusar：1\％in Prusial in INBI：was celebrated while a hoy for his fine shman voice atmo mad． a coneert tour when iwde yoars chla．He atalied in lortin
 chorus－comblutar．He remored to Ni．W lork in 1 Res，and
 sucepeded Fritz Fincke in Pattimere．In late he worn with his Columbus，the prian which hall hend attornd for the hant cantata for the German Columbian enlehation in Sew lowk． 1）．Fi 11Eman．
 mene，and bruthor of lisk（q．P）In front of his bume in the country stomat ank－tree in which at－nake hat huile it－


 licked oul and purfinol his pars，so that uphit amating ho
 therenfer inaturted him in the prephotie art．Ditw ins in－
 the must dintimgunhool of withayers．So．lita．Loko．


\section*{Melancholia：a form of emotional inanity．Sm las}



 erally＂Black carth．＂of which Melanththon is sumply the
（irwot tamsmion），was a hillful and cminat manufactures of military arme，who bs bio prade hod altanel nanpur


 mather wa－the－ato of the remomand homation Jom







 devere of hather of apt what why a fue munthe over fourten．During this prian he wroth hindipech grammat．
 chati the following gear．whon，mathotanding hivenc－

 extreme youth．This．with the insabarity if the－limate．

 including（aret and hatin literatare，phitaphy，history，


 for sume beats bias a curvetor of the prach fur publiations



 inatugural adramo（he hathers to be forrectel in the stadies af＇outh，Whicla complotely wor the hath of hi－harares， Mrectally luther．In hin enthaiam，Luther write：＂I de－








 pablished．Whring the same sar he reverat the degere of

 Lreat mindety he always promed that his－phere wan that










 tion ly his pupils，in an imperfert form and wathothes her
 tion shond the pergred．Thas ravime in the haci fom－

 most acenate form the baterial derived fom lather．Thas latter techated that the bunk hat there sultal dontrine in it
 tha，and that it wan warthy of cammian athority．Ma－


 tion lafing in the change comerming the ferentan of the wifl．








 1．54．The Loes in thes ther．What whame lathin and




















 stome th have ghe anat darmanatel butw what he












The trignon













 and ompan form. So lom remarks (Eimtritung in dis























 t. LIM th the mather. lwan




bimenate the mather hat wan of
Wrawre Ihstory of Irotustuat I
1114, st \%
"lhe writings of Mathelthon fill 1 wenty-for folio vol-
 tiret num whmes entain hie letters. to which bindecil

 mana: (hromangat tahn of the what events of his life.





 lemehthon als Promptor (iermaniet (Berlin. 18s:9). See also


Mdamesta : whe uf three ereat ethnographic divisions of


 the S. W. to the S. K., Binmarek Arehiamago, the Solomon Whand. the santa Cruz inmas, the Tuctpa gromp, the New Hehnide. Nuw ('altulonia and the Layaly ishands, the Cles1ertioh ishande, and finally the Fiji istands. where the populathon in an mixed what Polveran that it mar be indiferently attrimond to Mmamia me Polynesia. The total area of then thants is stision ar. miles, and the combincel popm-
 The porbaton of Now (inmot or laphatom the whole nearly athed to the Mehansiatms. If this is included the totalarea
 'The Xhamesime are cherly allied to the Negritus, though
 ally from the loblansims, thengh thore are striking resem-
 intomixture has sakn phate with the latter. The Dehunwian ate bity, caperially the women. but museutar, und sond wotmon. They have sume smian dharaters fairly wall panamed; wally but mat erinkled hair; hairy baties: marrow shombers and shomer arms and legs, buit later hand and feyt : chdor a depp brown. They are less thin wh than the bulymans, and more energetic, thongh inferine the thaking of weamen and womes and in the art of na:nisation. Smendringtun. The Melanexion Languages (1NS) and The 1/ lemesions: Stulies in their . 1 nthropology tul Followe (1-9!).

Jark W. Harmingrox.
Medanidar Mol. Lat., namel from Melanior the typi-
 frow-whter gistornod molluses in which the usually long ir conimal shill in emored witha thick, dark-colored epidermis. 'The font is large, the proheseds short and stont, and the eyes now the hace of the temades. The species are Bry bumoran, wheially m Sonthern Asiand in the Nisfosing valley. Ammen mothin is known of the stracture an d.0.小品ment of the various forms.
J. S. K.

Mrlanip'pus (in (ir. Medánatos): son of Astacus of Then, who, when the s.wen lheres were attacking Thebes, was mathat bly bionles olmonte to Tydens, whom he whamel momaty. Later in hat tight Ahpharaus killed
 muthy for the war. प"n which he hat entered against his will. beranse thenehnw its iseme. He therefore bethought

 and make him immotal. In inter to prevent this Amphi-




J. R. S. Sternett.

Mil'inism [from (ir. \(\mu\) é \(\lambda\) as. -avos, hack]: a term used to







1. A. L .






to a duet for the pussescion uf the lown of（Fimne：on the
 thus took hiv plate and by the helpuf Dimans hillem dan－ thus．Melanthes lowne the Kins of lithens and the father of the geot kiner Codme．In homor of the vitory
 mergis，and the fistival of the Apaturia wan cotandinhed in honor of Zeus 1 paturios．




 hahitants，and beame the see of a biohog．ha figh it hat 20.400 inhabitants，and became the capial of the nowly
 ants，neaty half of the parmation of the entiru contony．This









 of Melmame in very lime．Athourh the Jarra－Sarra dene not admit larse sea－phing vesula an anemut of the bar at its month，ralways have been ansimated botwern Mel－ tourne and Fort fhilip，which is an at heatiful intat of the Indian Crean，afe and deep．lhe strets ate all pacel and provided with gas，electridy，and water．It is dio－ timguisied for its unisersity，mint，mushm，ofervatury public library，hospital，and publice gardons，and is an Eepis－ comal ste．

M．W． 11.
Mellomrne，Whlita Lamp，Visoomut ：statmann ；b．at
 educated at Etom and combridge：stadiol politios and jarisprukence at（ilasgow；was called to the bar at lim－
 Lady Caroline Ponsonthy 180．3．Ih attached himself to the Whit party，and continned a moxerate opposition to the ahministrations of Peremalaml hord Livermal：beame Chief secretary for Ireland on the acession of the＇amming ministry der．o \(1 \times 2\) ：：surecented the the the on the death of
 Cathowe emanciputien and of parlianmentary re form ：beramo Sceretary of state for the llome le partment in Garl（iras cabinet Sox．．Lemand on the retirement of the latior July 9．1s：34，sueceded him as First Lorlof the Treasury and Premier：was dismissel in Nowember of that varar，hin re－ coverpl his place in Apre．1sin，through the support of the House of commons，and retained his pusition natil hame． 34. 1841．He was therefore the resumsible latal of the lititish Gorernment at the atersaim of Gueen Viotoria and during
 the caluation of his yomesomerign in luer royal dutio．If．
 Caroliye Posconby，known in literature as Laty Comane Lamb（he diow before he sureeded to the titlen a dauchtar
 celarity thromsh her romantic attadment to hord bomen． and her sulsequent bitter quarrel with him．She wrot．




Mrlohites（rovalists．dir．Menxitns，from somit．mefok， king）：（1）a nane apdial to the mombex（brintian of





 the term was taken formpallariane to the liantorn em－

 the orthofox，whe were few in mumber．（2）In Fintern，
 ing aceording to the ritus and cormonion of the batorn


and Hamasens，its fatriareh reviting at the lattor flan ．It is supped to have originated from the latwore of otreni missumaris in the armbernth equmer．It was fombet that



 The laity parake of the suranent in beth kind．wine mat





C．Li．linhutt．


 timb；whe met Jbraham on hiv rearat from tha resene of
 whe，and offerd a hanguct th．．Wraham and the kine of Sollem in the valley of shaveh，＂alleel＂the hinge＂s dalo．＂in the urighthormen of lertionlom，aller whith her bersed Abraham，and reverem from him tither uf the spoil．（lien．

 recordad in the Therom an well as in many cabbalion on and rabhinion writines identilied him wiht the patrareh shem， Who，acording to the enrent bibliwh fhromoney．was still living at that jeriorl．This was the prevalent diwish opin－ ion in the time of lerome，was aloptol by lather and lap－ Gnehthon，and by shlen amb Lishtomit among Enclioh writers．I neet of thristian heretico，callal Murhehedek－ ians，wharden！him as an incarnation of the＂great power of （inll．＂Sunerin well tol Chrit．Whers regardel him as ant angel，as the Incly dhort，of as the son of（ion），with which conectition harmonizal a dewish bedinf that he was the Mes－ siah．

Mrléager（in（ir．Menéapos）：in fireck mythotury．a son of（Enems，King of（＇aleden，in Jtoln，and Ithata danch ter of Thestins，huwhan of cleghatra，daughter of Ibst （q．थ．）：a powerful hunter who was divingunhed fur his skill with the－fear．He it was who killed the boar which Artemis had ent to ravage the firds of cabenden hecanae tFheus had nembectat to otfor up to，her a sarrifies．（see
 old the Fates ammoned to his mother that the fhild wombet live as long as the stich of womb then hurning in the lire was unconsumed．Th hata smathen tha hrand from the lire and prearved it carrfuly in a chow．hat whon Meleager


 ger wept so for his Itath that Artomis took gity in of om


 （The famong them ato thome in the Perlin and fation




 wat philonphys．for he was andiphe of his famme tom－





 land wa have only stay flowers．luge her with the dolizht fal int ratuctury wran in which Meleager charaterisis the
 1＂









 ？







































 the hamm of atmaty life. writhon for the spanin































 1h. F'remith handed lu retrian himsetf, hat fotmat was










 fornth enotury. A true buet, he surpasidy almust all his contomperaric in intellathal colture, as well as in the in-
 pramption.
A. R. Marish.


 asuntaion uf "pisemal fundions in the se of Alexandria

 herefical. but his followers, whe were the heneficiaries of his arhitrary antc, herame Arians.

Melatins: libhef of Antionth: orisimatur of the Meletian


 Catholic janty in Antionh.
Mel'll: town: in the provine of Potenza, Southern

 meree and indutry of this phate are chaiderable. Deff was a large fown in : inf a. b., and its medieval stary is one of the
 gemoral Latre he Fixix tok Molti afler an obstinate resistance, and shw trow of its inhatatants. It suffered from atrthyakes in 1496. 164 , and 185]. Pop, about 11,760.

 mind, and his weres are nearly all if a plantive chatacter. Many of thom have lwon sed thanis, and the are among the man puphar sume of the rpanish-American enantry

 L'mathiri, ath hat al 'uzo Mar. IO. 1s19. II. II. S.

 ther maks by skill and rorklows daring, but was a hot-heated
 whend in rowhtime with ahmen exery Belivian prestent.
 of his hrathr-in-law, tien. Achai, aml hat himsolf pro-




 twandary Iraty with thili, which, homerer. was mot ratilied

 in a hat hatho in the - traw if Lat laz dan. fo, ferf), fled


 Whand with him in ber ams when she was lating theat-











I. I. s. sterbett.





















 forage is cararly caten by vatte amb is of cocerlent quality bat is not very abomdant．

\section*{}

Meliphate＇ida［Mond．Latt．．liter．．thase lelonging in the







 farmshed at the tip with at fenoil of shat fibum：the tar－i
 alway united at it＝hase；tha fail loner and brame．Tho

 of the ornis of the former conatry enterally they form a charocteristice foaturs．＇lohey vary in sion from at large thrush tu a sumbll warbder Giray divino－the limily intu

 gencra．

Melito：Bishopeof sardis：flomrished in the thitaldarter



 Melitomes，of whirh a syrae translation was diservetem hy Tattan and printed in Syriac by（umoton，with an linerlish



 Eng．trans．of the lpology and tragments in antes lioene


 years ut Amherst Coblewe．Mans．；berame a baytint mininter．


 to the samo wair in the sitate l＇aisursity：suldequenty he－




 lated－onm on liuplishathenil（iurrertime（＇hareh／hiselplim．



 Jun こh；Isox．



 by the Jexuita：rome lo the ratuk uf columed in the slanish army（lortugit lieng thent subject to spaina），serviner ith the


































 callal at＂medaly．＂fol＂somats in any mamber may he for－













 we lonk fur now in what harar－the bame of＂manduly

In the conaception or firmation of malloly far same is ime
 any haphazard ofder of silequaion．Comsinh ratans uf kizy





 w mothing：

Ex 1.
\[
E(\vec{b}=-==-=-=
\]





 pan

\(16, \ldots-1=-1=\cdots \quad 1=-1\)






 date 1 ：
\[
\begin{aligned}
& \text { fix } 1 \\
& 18^{3}="^{2}=-1 i \\
& 16^{2}=\because \because 1=1=1=-1 \\
& 16^{\circ} e^{-1}=\cdot 10: 1=1
\end{aligned}
\]








 －


\[
\begin{aligned}
& \text { 1: : : } \\
& 10_{0}^{=}=-=+1=0=11 \\
& 16=-1=1=+\quad \mid=1 \\
& 12=3=0 \cdot 1 \cdot+1 \\
& \left\lvert\, 0_{0}=\frac{1}{1}+10-10.1\right. \\
& 16=0=1=0=-1
\end{aligned}
\]
 1，whir．＂lat promrosinn mat be compared with the plain



Fubrth。 bit the use of thoth the mote above and the semi－ tome below．lo whin moans the plain motes at a in the
 Ex． N ：


Fifth，bs a discriminating use of a lengthened semitonic ableneriatura where the current of the melody naturally shariots it．Sin lix．！where the plain motes at a are cast

 ＂mathasin：

Sivho lis the use of hamming intervals in arpeggio form，
 patine relief for the ordinary mut om when it consists of


 Howe chorals and in conformity with the rules of musical
 ：al at al \(b\) ：
\[
\begin{aligned}
& \mid i^{2}+\infty-10+10
\end{aligned}
\]








 applied to the fruits uf rariou* plants of the fimify (urne-
 muskmelon. ant to ('itrullus phlqurix. the watermethe
 Lodia and adjacent parte of Asia, am! there is ame rea-
 It is now whaty dietributed, amd it has ran into moneras and wery divere forms. Infact. it in we of the mat variable of all plants. The ment serviocable clamitiontion of the many forms will bo found th he aproximathy an follows:
 wild forms of oriental countries.
2. Varsety conthoupenes. the cantalopes, wr mehns distinguished by hard and mure or lass satly, warty, ur romgh rimp, often deeply furrownd. Tha name is durived from (antaluppi, a fomer conntryent of the pure near lame. where theme melons were early grown from leastern somees. The rantalupes are prized in the 1 ". S., partivalarly in the Southern statio. wher the mane is sonetimes and gencrically (but errmentely) for all muskmelons. Thereare many cultivated forms.
3. Variety reficulatus, the moted melons, common in the Northern state, where early molun are …emial, and foown, as a clane, by more or las findy netted or rusene. but not leeply gromed rind.
4. Varietr suchurimes, of sugar-menns fomprising a group of oblong melnens represented in the C . S. chiefly thy the pineapple clas:.
5. Variety inodorus, the scentles or winter melnas. These are very litte kinmo in the \(\left[^{\circ}\right.\). S., althometh they are common in parts of lurone They are hard-skimed grent or yellow molons, which rijun late and kerp until midwinter. Some of them are of cood quality.
 This is a strame varicty in wheh the fruit is as lamp as one's arm and no thitker, with a very smatl core. It is grown mosly for curionity althum it is ablible.



 pocket melon. somotimes called veretable pmompante. The fruits are the size of a turkey's eqeng hotutifully mumad with yellow and hown, and exhaling a puwertul amd delicious perfuma. They are grown for rarinity and formort ind warlentes, but are not odible. "This phat is ametines sold by seodomen as 'ucum is odorulissimus.
9. bariety chutw, the chite molon, introduced into the ['s. under a variety of names as yugetable oramen, winepeath, gaten-hmon, molon-aphte, amb the like. The phant in senter, conving the a smatl suce, and the froits- the size of a hen's exg or an oramp-are lemon-vellow with : elear white, slighty acid rucumber-like fowl. The litthe fruits are uad for making picklow of conserves.
10. Variety agthre us, or vel lereian melons, not grown in the L.s.
The mustimplon is a popular fruit in Nomla Amerian. where it thrives war a whe torritury becanse of the hat
 inces with entire surecos. In that vear ise!) thare wore eighty-eight rariotios if nurkmelons on sale by Nomb American seenmen. The phant is yey impatient of and. and ahe of hetward and puorly dramel or land woil. The seed should the put is the gromind only after the weather is
 ern parts of the 1. .s.. the phants are often siarted in het
 soil in which the crop is erown shonld ho very rich and
 ad. The phats are nllowed for stand in hillo. twe for for
 of sed is repuirel? for and acre. Sume of the leatine sari-
 Market. Christana, mul rarims cemahnus. The supmaition that melnos and ancumbers will mix whan phatiod together is errmanu*.

 and should be trated with bordeanx mixture. (x.e FownCloe.) The leaf-siot, due to a fungus of the mane fhyllosticfa, which also attache the shonts tam probably ine


 Whally : kind of dampinge of of the shems when the phat-



 throush the ne-h if the meloh. There wims fowl unon


 fhant, can manally be repelled hy primbline lime or flator
 or a mixture of lime and suphar may an- oor the parymo.
 sprayed mun the phant.

 whely diat ributed, buing larent in the central state Fo of

 of muskinelons were grown for and finames.

 the haty and resinone fruit of which is uend for making

L. II. Bahlety.

\section*{Melazzo da Forli : Sie Furdi. Mabizzo.}



 thod with burkins, and weare on her hrow il garlam! of iry or vine leares. Rowind by.d. If

E. of Elinhoreh; containine the mine of the cedthated











 ruin, though the churd has heen failly well greserval.




 bank with apital of slopopot, a saving-hank, a momthy and ? wekly mow-parre and mathationtis of hans and



Moltom-Mowbray. mel tom-mintra: a marketonn, in




 hanting diatriot. Pog. (1-91) forde.


 The ilatphin: was for nime Years a sombleman of the hom-

 Italy ; returned to soultam when his formor mitaros hat






 ambery durine the minevits of the lave and when kinge



















































 limiond by M．X．libure



















 （：H，Therbser．
 1．ハ1！：－hy
 lamio．remanime fur matho arianmer in＇lyme（＇lapi）





 other theitors．a Mors，privately preulated（1sse）：Dimo－
 Ghan if Mamindmatio in lsti．In lét he removed from
 arnum the worde and an his refurn boll for some time a
心．1！！1．
lawiond hy II．A．Beers．

\section*{Nembramon Aneina：so Diphthema．}



 （rnbucur，wh Lake Poria，with Tomty，whom he aibed in offerting ande betwe the Iropans and Illinoms Indians；
 France fla salle sar：whate a marrative of the expedition，

 bexame warden of a monsent at laname．France：returned to North Ampraa：acompaniol La Salle in his final expe－
 on Mataronda Bay，whers，with ohler condonists，he was mas－


 In la salle himulf．sue larkman，The Discorery of the fireut West（Bomin，1atid）；Sjarks，Lifte of La Sille（Bos－ （1nt，1s．14）．

Memel，māml：tuyn of Prosia，fommed in 1252：on






 1－20：Ahe and pare of death mankw，as also where he harned hivat．It was a shliar for some time，and was Inkon inte the harital wht of charity，in return for which he feft to it his domatien of the shopleras，，we of his linest ghtare．He lived at lipuges，wher he painted a birgin
 fant thrint arren the rixer，the martyrdom of at saint，a cru－
 shary uf st． 1 rewhe．All thes warks are painten in tempera．

\section*{W．J．stillman．}

Mamman：a mane of eremal persme，the most remark－ able of whom win the whof Tithons and Lios，who after the death uf Heme hement the kithophans to the assist－ unw of Drian in thr war amant Troy．His adventures
 armentige whinh his ammir was mate by lladaistos or






























 formed part of a drombe or row of tatmon bubliar to the




























 Hemouf this name ary known as a libulian who levoltorl





 33:4). Ilis phans of the eambaign wore mofortanately and


 a hastorian of this bame, what wate the local history uf


 blane to the hero of the "Irujan wat.

> kevioed by J. R. s. steknetr.

Manno'niam [ = (ir. Meuvósov : a hmihimer at dhydom
















 amel name ninetern timos. This lint is more imputant amb
 served (karmak, sixty-one mames; satparah, forty-two:



 - V.
























\section*{Mromurial Day: कoe brombatmos Itay}

Memory [". Fine menmeni, from "]. Fr. mammire \(<\) latt.

































































 Fann-rı





 (1) (










 sombe bith on the matter. We tind there merse-entle and















































Whan light on the momal procuses of spech and mem-



 an rantion if movers and weithas. The phemonenon




 for the lat of montion we are ifmom of the actual
 sations and mumatemato or mandry have bert mate which hate endared whe kmulen!ge of the shbjet, and this on
 Aristutc that whon we regird a bright object and turn away the eros, an after-imaze of tho ohject persists. These aftr-imates hase bean matully statied and measured by many whover. and form a link betwen sensation and memirs. Anm what analorons to the after-image is the fial that a iertain amall part of mondiately past experi-
 Jam"o har renarkel, he "present" of immediate experi-
 mont- sem :" shew is in the neighorhood of ten seconds in widh. What has hap wind during this interval is simultanconsy in conconshess : thas in reading or conversation We tahe in the meanine of a semtene as a whole. We may next mition ateculiaty vivid form of momory, the so-called momory-inag. If mie has heen searching for wild how-or-ar Wonking with the microsente. or watching machinery in motion, ome may have very visih mages of the oljects, and them forint for a lona time and have many of the qualit fos of chatimes. Then we have the power of calling up mental imades of acenes. The indivitual difterences in this repal have hen swadid ly Fecher. Galton, and others with interesting results. some penple can call upa sem in inarination very vividly with the ontlines, colors, etc.. of the wiginal objeets others can do this very imperfectly or mill all. With some the train of ideas is habituwhy wemmanded by visul piedures, with others by sounds, with whers be motor impules, esperially of speech, It shond be mate that momory and hamination contribule a grab deal twall our prevelions: the in ordinary conversafinn what we har is wery laredy suphed from our past

 likely to sel at tombetomi as a ghost.
Siat monamons have inem male of the amount whieh

 sinns. Thas after a moment: expmare an wherver cond rencoize and ranmber ti letters, 4 discomected words or
 ho ronht remember i maningless sylables after a single reabing. It required if rablings to hemp 12 sylables, of
 indinhlaal hathernex and such experiments have been mahto on shombhildren with interening results. Thus it hat lown fomat that thew is a dratual in rease in the "span of mandy" with an" and growth of intelligence, and the
 therberg has stadiod the part pityed by sisht and hearing


 then, and write thom. The rate of forgetting has been beamad in expral ways. Thus a light of a given intensty 18 shan ta an wherver and then at second light someWhat hruhtar (u) fantur. and what difference there must be in the loght in arder that the observer may freeive the
 hath is then inverand, amd the grater "erme of observathan" mandor the andmatorentin a given time.
 bent whented by Whafe amb whers. Amothe deriee is to

 thent, the time in sherer, mol the derremse in time may be and turnana the amomb remembered. 'Thas in a series of exprimento 11 was fombl that a saving of of per cent. In :he time us arened after twenty minutes, 44 pre cent. after ohe hour, wher went, aftor one day, and 21 per cent.
 more is formothen in the first lame than in the" follow ine


 retantiveness aflo! pratotiot.





 familiarity with the lansuand. It takes ahmat ather of a

 quifed En remember in what comatry a aity is situated. whr is the athther of atrisum work, eto. Int thic waty intivilual



 Was aked what way the wothey at work ago, Sixtern an-


 in the eourls of jutiow amd in other directimas.

 Ladh, ant sully. An historical sketul hy lamamm, with. full referone is is matained in The dmevicuat dourmel of










 the alwe of the luelta: the matal elaring the thirel to the


 does not ajperte till the wivh donaty whon it wat dirst ap-



 perion thas rity low it pusel, hut it was merived and fex-













 sienificant. Tha center uf the raine is at Vitrethimh (3!



 Whose monmmies are provervel in Now Vork.

> fusbli- li. (indato.
























































































































 mamery of thar，thofs in the minatry of the latorion．In




















































 frolu 路！：





 whad it hrafm alman atl of the wosern hatf．It rines in


 bati．It is a bindmer stram whinh in seremal nases suh－









 of Perois amd Jrathia．ref．ti（is．li ledomes to the lbritish， and has sonulahathants．It is the collere of the peart－tish－ fare inthotry of the ralf，and in bue semson is visited by many


II．W．II．
Mrnander of Jthens（fir．Mévadopos）：one of the preat
 dromberl in ：3！s．r．While swimminer in the lmothor of the


 has thell mat that the only erose in his life was the crose in








 satral him from the weaknoso of the spoiled children of litaralure：but alter hiadtath thelrama of Monamder domi－





 semey ul his maxim，the relimement of his hagomer，and

 and mannotm．Infutmathely，bulay survives．and we are

























N. W.. the Chi.. Mil. and st. I'.. ame the Wis. (ent. rail-

 porated bank with capital of s.thmo. and isw wekly nows


\section*{}



 ing Lan, the natice state of Comfuematant ait bac. The district rity of Tasw-him, in the A-partment of Yenchasfoo and privince of shastunge (laime the homor of being his native town, and there hi- lineal reparmatise liwe. He was in hie thind yar when he lom hiv father. lat hie mother
 noted throughout (hima is the thatil mother" Thrioe the changed her abosjo that he might he mavel from the wil influences of unworthe surmandines. From his abomboy days litthe is known of him until at the aso of forty ha emperget as a toacher of - mo note, with a larad following of

 that he ruvivel the intherene and anthonity of that philanphor. He considered man wad by mature and hive wees and mistries produced, like the wantal and disturted growth of a tree. ly wil inflanes. The ereal frothom, then, was
 In pelities he considurelt the intorets of the pophe of prime
 strmgly in onmenion the the of the werecien that he declamed it riehtemes for a prophe to kill then ruler when be injured their welfart. Like canfucins, he traveled thengh the futty kiundone into which thina was that divided, setting forth his vinws. hat met with little saceos, athl th. last fiffern years of his life were sont in retirmant amme his disciples. The date of his death is not certanly kown. but it is stated that he was ofory \(y\)-fome yars when when died. His sayinga are contained in the last of the forme Bow which form the hation all confucian twathes. They were not atmitted intu the canon until near the end of the



li. L.

\section*{Menderans: Sem Maxdmaxs.}
 in Siboriat. in 1-34: stalied at the Egmasimm there and at the l'niver-ity of sit. Poterthure where he became privat
 Germany. herame l'rofessor of themintry the 'loohno-
 the university threq years later. He is hent kuma for his contributions to the perionde law (cee ('inematry). IIis

 melal by the koval Sinciety of lamion, ami in ked the Faralay medial by the chomial surdets.
1. li.
 Dessan, in the duchy of Anhalt, (burmany, Sept 5. 12:3) of Jewish parents: stmined almon! from infang with the wratest enere?. hat muder the hardest "ircometances, the Bible. the Pahnul. Mamomide and afterwarl aho matern liter-

 aryuantance with lewing sent grew intan intmate friont-

 Abht, and wher liturary gerons and lusan in latis to writ."


 immortality of the smal, whith wan a timenvan onletrity. In 1783 afyented hiv droustom: in 15-5 his Morgonstonden. which expreien at comale ratho inthanote oh his comalimion-


 phy of Deinnita and Wolf, and of tratime after the montel


 philosophers" of the eightemth extury, and his theories

























 he tha- berame the ma-ital prentiey ant the herith anter



 dominion of the wintifie \%-lter. In that yat, writing his
 revaleal the leatine quality of his uricinality, the grace ful

 he was manle musical director of the ejty if hïrod dome
 zise whew be lived fill hiv leath. exepting during thert



 rextion of the concerts of the (iewandhans. ant the wah-
 city of (iermany fat gare mivic. In remghition of hiw - erv-
 of philnathy anil of fine arts. and in 1 ain the kine of


 ten yeare of his life. Ili- contimom, laturione antivity mum whanted his whsitive organation that the death of
 comald nat rally \(A\) few monthe afterward he diad of ann-


His nature unitel strone affectims and akemintellect. Lrat entry abl mirth that wavern frolicome. "hat his strongen traite was his matlaging pursait of ferfere-

 "antiner to be at perfect corthetur for the phayre given him






 montantel the inaturin Eligut, wheh is mow jughlay in




 Erace probaty the mast verikine work of it kiml in the







\begin{tabular}{|c|c|}
\hline \multicolumn{2}{|l|}{\multirow[t]{6}{*}{}} \\
\hline & \\
\hline & \\
\hline & \\
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\hline & \\
\hline
\end{tabular}
















 maty





















 Wa-















 gatat an ind


 A- Ahatid, a luthe fathet

 and berath vers:











 1. 4. ('s.s.matid.


















 (114:

\section*{A. R. Marsh.}

 attom ambus andwatures in Furnm he sol cut for the East lolion. and arriod in 1.33 a al Din, on the west coast of India. His adventure lantad many yars, and were narratenl he lim in a heak published after his death, in which bac talto that he hallown twentyone rears in the East,

 arrand him from Exyd - Drwaina, and Arabia horoug Preria, Imbia, Burma, Malacea. Siam. Jara, the Lootho intand, lapm, China, and lartary. Mendez-linto made four visito to Japan, one of which was in compay with St. Frami- Xinior. Grourh whose inthence he poterd the order of desuits at cina. demoting the large fortune he had aropuiral to the extablishment of a seminary in Japan. Obtaming a relnase from his vows, he returned to portugal in has with lateters of commendation from the viceray at tion. 1t, remided at rent several years; died at Amala, near Lishun, Inly \& bise. His book. Deregrinacion de fromam Mendiz-lithe was thrs printed in 1614, when it immediatuy became a faborite, and is now ranked among the Fathenere dasses. It was translated into the principal haghay of limpo

Memdimin. mon-dithooron, Mavela de: general and hinturian: 10, at Lima. l'ru. 1sim. When: young student Lu juined hlue patrints in le? was captured by the Span-bart-aml liph a prianer matil the end of the war. Subseghonty he hold many civil and military oflices; was Minister of Wiar mater dianarra and of Finance under behenique: and in 14.9 was sent on a spechat misson to Europe. lle hat eolloctod an immense quantity of material for a history of l'ru, but midnaly condudal that his atritites were mot expal to the tatk of witing it. He therefore threw the mone mato the form of a himerahicaldietionary cutitled Dic-

 pallication was bernm in lait and concluded after the shthor's woath. It in he far the lust work of its kim that has ever apmand in simh Amorica, ath has been heartily paicell by uhalar: ; it in bery fall and contans much new matrial." 'I'he ecend fart, which was to have come down



 mana; rherod the wher of donits, and sumesively lilled










opinionum benignatum in enntroversiis morutemes (lxons 16itit).













\author{

}

 territories of bampa anl \(]\) os Indens and 11 . hy ibili.



 angle; spurs and lower ratuen cuser botaly the whole fare of the prowine sulsialing tolhill watward; in the morth-











 19. ('uttle atre rai-al, primelpally for the (lhilian matione.


 in \(15.5!\) he cranimod from thili. who rasily ammered the






\section*{Ilerbert 1]. जumat.}

Mendoza: a oity: rapital of the prosince of Namlaza






 cia du Hemhosa, who, at that dome wat movermar uf (hili,



 trees and an ansle of nate of the eharehe wore heft stimtimer. The shatk occurest of the mornime of . Dsh Wealmatas


 20, 1400.

 Dozd, ANTRE:





















































 ('hareh, howesor. beiner ent ont of most uf the latar whes












 with the selalitr who worebu-leal with the task of wititer


























































 rofolmulel ath many yar-

Manala'man (in lir menésmas): (1) worl of (liathones of







 andom the cirmat.
d. l: - - olerrett.








































 the. What 1 mhian thent, and acepuipen great wealth hy his




 twen matithand on the Fherida comst, and he saided from
 men. "He -hip wor matherd hy storms, and raly seven
 Fhrida, and after anme meliminary skirmishing with the


 prixl and abiured the French fort on st. John's river.
 an howino." sumatter the Fremeh shig met with repeated
 at the lin tave themalom and hat ther were batchered like the rot: in a few months hardy a trenchman remaned in
 during the wint re the sufferd greatly from hunger and from Pulian atanks: ibut 100 died and 500 deserted and loft the eobent. Subequmty large re-enforements were

 ha was ative in the whemment of Cuta. De also pmshed exphration worthward. "stablished a poot on Port Royal Baly. now in South Corolina, visited Chesameake Bay, and in thil sont a pity of misionaries up the lothmac river this misom was destreal ty the Indians, and in requital Hementw asembel the Potomae in lises and laid waste wome of tha hulian vilatres. In 1553 he finally returned 10) Pbanand wan wiwn command of the immense leyt which Philige was proming against Engramand the Veth"riand. but diod sum after at santamber, sept. 17, 15at. Hiv lettor fran flomato King Philip are extant, and


 Cathard. La Foride Framquise (1sin): Shea in Nerrative and C'ritical Mistory of America, vol. ii., p. 260 , et seq.

Hfrbert ll. smith.

 His literary cater heran when ha was lus than wemtr, With mane artiolew in the Rometa Eurmen for 1sid, athack-
 iatre who indiand to alopt them. In hefore publishing than he hat complod lis studies in the 'hiversity of Salrid. and a little later ho went to barcelomand to laris for a monitherabl perinl in order to enlarge his scientific kowbedge of litrature. On hiv refurn ter spain he was

 guirallowame of ham extmone somb. Som after (1sw) he was "hemel a momber of the saninh deademy. Mencodez ? Jandor in
 r-lf with the camereative amb nxtrome (atholie party, he 1- wambally a writer of hmanistice rather than pational or


 Hann it tirmani- raw. "low work frem his pen that has





it displays. He is more traly un his awn gremmatwh her is dowhire with literary mation and partiondarly the hio-
















 (188.2).
d. R. Marma.

Meneptah [fomm Erygh. Mer-h-Ptuh. Belowed of Ptah: the Amenpphthes if Afrisanus, atul tha . Immonh is if Ia-

 masty. The lenith of his reige is maertain: minamental

 ing of eonserparias. Dis only war win with the Lithyme whom he complom. By many ha ha hern incmithen with the Pharabh of tha bexilus in spite of chrombarieal dithiculties, on accont of the fat that the earlinet romains found at lithom, me of the "stare- ition" buth hy the ls-
 identified with the lphamon of the Opresomen. Curionsly enough his mumby was not with the othors fommat Der-el-hahari. Siee It iti-llan.
(harles R. (illhett.
 nizerl human King of Kirylt, hoine mantionol firat in all the monmmentat hists of fing. Whe infomation concern-
 contemprary momumat - have han praded. A is mative

 foumded Nempme (\% M) Mantho says that lue wagen war with the Libyans, and that he was fimatly killed by a hig-
 Temple of Ptah at Memphio: Dienforns (i., 94, that he arranged the worship of the whla; Slian (Hist. Anim. xi., 10), that he introlucel the Ipiownit at Momphis: and In-
 invented the alphatio. From hative somes it i- known that he received divine workip thromphot almont all periods of beyptan history, ame the nomentalure of the
 cate that his seroma sorvice was in the mationtion of the govermment of the whele lind. Chardes li. Gilhemt.




 the Aemdemy of st. Luki in liomos. The wiling of the cala ded bapiri in the Vatican is onte of his mont imporam
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\section*{Monkara: Seq Myeravos.}

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\section*{Whlli.am II. Whitsitt.}

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J. li.s.s.















































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 ly continuas，and its rulas，as recornizal and anforeed by
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 the army of Prime Charlos Filward, the Gong I'retemer, in 1545. In consempene of the failure of the rebellion be
 campaing, and wa- womded in the hatle of the llamongheda. The received a medal fom the rergmation of philaCedphia for his conam murn this expelition. In lise he was mate lientenantornmel: acompanied (ien. Forbes to Fiont Ingueste (litishurg) and commanded that post for some time. he then sethlad as a phesiom at Fredericksburg. Vas; was actively engacel in drilting and organizing the minutemon of Viruma in 10.5 nom the militia in 1726 ; was apminted eolunel of the Third Virginia Regiment Feb. 13, 1ait, amb at Washington's requet was chosen by Con-
 fank at Trentom, and whisel the nisht-mareh upon Princeton, in wheh he hed the intrance. He was mortally wounded tan. 3. 15: and died a few days later, dan. 19.
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 comsin. Charles Mawdith, and want 10 Ahatalial. Five years later they sethed in 'lamania, where Mr. Memedith



 a rolme of verse, illa-trathed hy heredf.

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Merganser [Mod. Lat.. fron Span. merghitwer; mergo,
 a name given bremmal himf of the fanily Inothate, hiffering from the true dacke in having a kemer hill, slightly hooked at the tip, armod with lith recmond moreses which serve as teeth. This tyla of hill has daned for the merfanets the pophar name of atw-1ill. Another whmm name in the [. .s. is hodmak. The merganers ate expert divers and feed of fish. The malde are hambone hirds with a striking dumase af hatk and white. The hargel verjes is

 ganser ( Lophomples curnellows), in which the mate has a hage.
 angular white tatk in the himere pertion. The fematwate more or lese hrown in plumati
F. A. Llots.

Moreer [O. Fr. infin. of worly, from lant, mery re. -ink.
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 and Winapmana at Framkin．N．H．It fows somthward


 athl Xiahan．X．H．，and lawell．hawronce．Haverhill．and Xuwhurym，Mins．It is a hatigable tibal stram as far as 1 lincertill， 15 mides．It its mouth there is a shifting bar Whathimpalde commere．＇lhe river hodow the dam at Law－
 tance is from the inmane water－juwer it allurds．










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 of＇hrive sull the Haly spirit in Inlievers ar the church （Matt．xxiii．？（ 1 （or．iii．16：？（or．yi．16：Eph．ii．？0）：in the wonnl is tahen up dacobis predietion ennernine dubat and balami of the－tar amd wepter and it forms the basis of all sulsembent apectathen conerning the persomal Mes－ sisht，in whand and in whes kingelon it finds its ultimate faltillmun：in the third is infolded the sumbip of the peo－


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 and tha－：10 prombtio of the future．（1）Ps x xiii．，de－ wribine the－forial interpuntion of tion in behalf of bavid． and then his＂altation ath the sulugation of his ene－
 pation diad anner then for the womber he has wrourht， formatow typatly a future divine purpere through a king that is chat and a kinghon mular hia rule here on















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This is typually prophetic of the pathation and divine sonship of 'hriat (lleth, i. S-9), and of his relation tor his
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 as his partins, will trimmp wer doath. This is actually






 sion and captivit: dfure the juldement the redemption of a choven remanit is ammoned, a sabed and pirituatly transformed commanity of rantited dudah atad liphram, gathered for their lame which likew is tramsomed. be-
 lating weurity, wittr oldowah in their molst, and whe
 redemplion are the ehmenta of the prophetic mesenges.


 The luture redempton is acomplivan by the alvent in Jehwah, the wark in hio Sibit alma the perwnal Meswiah. The fultillantor is in the peron and werk of Christ, and extends from the first the the seomd adment. Fempral features namally typity piritual. The eaptivity typitios the bondare of the race in sin. The sawd emmmuty are the redemed of the New 'lostament and the land is the heasenly (anam. The prophet vary in thoir ontwar! presenta-
 acter and hiverisal ciremm-anere Ster the exile, while the notion of a jultoment is still promimput, the thourht of a eaptivity has disapmarel. We give theprophts ame contempmary Messianice Paims in thrombugical order (there
 ence to the date and division of amme of there.

Pre-xilione Prothets-(1) Jowl (we follow Briars, Delitzeh, and Orelli in paring Ine earlior than Amos: many modern eritios, with much probatility, ward his prophecy as post-exilian). The prophet dechares the advent of Johovah (a) (ii. 26-32) in the ent moning of the prophetie spirit, with wonders in heaven and on earth herahling judgment, and with deliverame in derasalem for all calling tano his name. (b) The alsent in judgmont is dereribed (chato iii.) as an aso sembly of all mations with comfusion of multitmbes amb farfil natural phomomena, with the result of dehowatis dwelling on It. Ziom, Jerusithom being invillable, the hat of marvelons fertility, af fomatain combing forth from the temple: likwine the thall be signal divine forsivenes. In the New Thatame fultillment is clamed for the day of
 to the (inem call and salman (liom. X. 12. \(1: 3\) ) and to



 after which a remant will he sfted unt ; the rained homse
 be repusseseal: :and the land will be of wombernl frationl-
 fultilloment in the coretion of the kinglom of Chriat and the gatherine of the fimtile
(3) "lhe ihnal ut How is that after severe chastisement and rejeetion -.t forth in the parathe of the athlacons wife


 hovah (iii. 5 ; r. 1 .-vi. 3 : xi. 111 f : : xiv), hemmine his faithfu] bride (ii. Ni, 19, f.) and anjogite a lam from whoth tho eursts of sin-war, wila basts, and unfriffulnes-have
 25 f.) sees a faltillane it in the reception of the (ientile- intu
 reappars in the Church as the bete of Clorist (Eih. b. Pe, seg.: Rer. xxi. 9.
(4) The author of Zorch. ix.-xi. (prothally a contemperary of Hosea) repments the Mesolatic king av mete amd luwly.

 Matt. xxi. 5). Byhraimand dudah are reatorel hy dehanah in exultation t" their una lame. "here they walk in the

 Schwald and larat hy ridh other. which typifine the re-







 of all contidence (xavii. 16) Kinnio the quint hatatation of dehowh, the ghorinm jutwo Warrior, and king, who is ite protection in the place of etream- and navies. agation all



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 Matt. i. ? (1)-3.) (h) ix. 1-i, A womberful lisht shimes on the mothem fromtre whin exalte that ferpe a-highly as

 ing that of didern in the day of Midian, i- wrmgh, a chill of the hame of latill is home named Womderfut
 leme, who reigns on the thrane of bavil in rightamones


 fints apon him, "hlowing him to fultill hiv work of jolving the pror with piritual dimermment and the wicked with the word of his munth. (ideded with rishternonese and fithfulues. he cotahithe whixaral fute in the earth, in Which the animal kingern shares. He lnex mes the stamard of the natins: a deliverane like that of buyt takes

 our prasoge with the correponding ora if ater. xxiii. 5 :
 who arew up in that ohemp phace tow which the line of Harin had wandered as a shoot from a motheded atump.





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 thime the viblent hat of the and，ther har with all sorrew
 rump．is．：；lier．vi．16－1i）．
The alsent of ．Ihenaly is no bes prominent．In xl．3－11

 ＇This is apple，to the loptiat and desus in Matt．iii，；

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 athe in the haml of the Lath ant is named flephabah and






 sugrame for his rmomics and realemption for his people．
 puphe win．：3－：：momb lix．2l），ind futs his words in
 watermanm，white the tientien dinn to bedeng to Jehovah
 the coms of the atith，and the vath is swom＂that mote me
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\section*{11. 11.}

















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J.ames Mertro.




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Tirharo Hensor．
Michigan City：rity：La Porte on．lum．（for lowation of （conty，see map of Indam，ref．1－5）；on Lake Dichigan， amit the lake Erie amd W．，the lanis．．New Alto ami Chi．
 （antains 1. ）（hurdhes a central and is ward public scheols， At．Marys Arandmy（Ruman（＇abholic），St．Dohn＇s and st． Luke parmhad mondo（Lutheram），the Numbern Indiana state l＇rism，a amitariman a C．．．lifu－saving station，electric strectrailway，a lacatiful public park（in the lake front a national bank with（eiphal of sumano a state bank with
 The city has an atensive trade in lumbro salt，and imonere． lta mamfactories indude fomblries，planing－mills，railway－



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lake has an important inflemere on the elimate of it - doores. as its waters are warme than the air in wither and moles in summer. The eflien of this anderiation of elimate is shown ly the abouctabe amd rich flawer of the trate of Michigan. Like its si-ter laker. Lake Mirligan atmonto in




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\section*{J. Lb. AarimL.}
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 © Fomornical Endrmacouts. It is catlow diker luteathe its -anential funtume i- a syotem at tian sular lines. having
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\section*{Miaropla：Su Exronman}

















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 （1890）：311．
















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Mid小lいいい口








\section*{}






















































































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 （1594）こ．がt．


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\section*{Molwilery：se whatarat}






















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Rith A．re und sumble－Rugs（1sos）：Tom Giars of Preacher
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 ［＇andory Midaws（Lrysiphata）．
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 of their hants．＇Wain hamehne protrule through the


 hers that they give the surfom a downy apearance，whence the pupular name，bowny Mithew．


Fig．1．－I wow midew of the grape：\(a_{4}\) diagrammatic section of affected gragn－ladaf ；b，branche＇s bearing conadia；c，two restily sports：\(d\) ，kerminating comblimm；e．otnidimm aftor the escrabe of zomspores；\(j\) ，active zö̈spures；\(y\) ，zoinpures at rest，and ger－ minating（all magnitied）．

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canse of the putatorot．（side loot．）Amother sumber is the bean mildew ur blicht（l＇．phavenli），whishattanho the leaver， statis，and puds up Lima luall．


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F1g．3．－a，contilin of postlers milifess，Fryeiphe gramimel：b，spo．

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\section*{Miltojl: her \arkow.}











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Editor of " Times.
Milford : town (inomporated in 1704); Hillshorongh co., N. II. (for Location of county, see map of New llampshire, raf. \(1(0-\mathrm{E}):\) on the Boston aml Mane Railroal ; 50 milos \(\therefore\). \(W^{\circ}\). of Bostom. It is in a granite-gmarrying and dairying region: contains a high schoos, public library (fonmerd
 bank, and a wobly newsapur, amb manfactures dasiary, katlime collon, photure and mirror frames and furniture.
 3, \(11: 3:\)

Fintur of " Farmars Cabinet,
Miblord Haven: a decp inlet of the Athantie, on the

 dup water, aml is one of the Inat purts of the British dominions.


 fitly situated, sumanted with ghoturespur hills covered with vinevarls and forests. It has hater tameries and
 in bathor, wobl. ant timber. Horiner the relierions wars it



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d. J. Kníl.

 Whalit\% in Moratia, in the beximaine of the fommenth


1360 he was mater camon of the rathompal of S. Situs, in l'rague, and in the same yar bo wan whinten werotary to

 some lonely phar in the labsmian limen, and then rea
 people in the armax-mat in Latm, lat in bohemiant. Ho.



 the broathi, and induring the fillon women who hat in-

 sond beran, hawere to dawn 11 on ham that the pat nf the evil was in the chareh heredf-ita her corruptinn, in her vices-and it gradualty tueame edrar to him that Ananhet lad wothe atmithat radiad and owepher reforms were in-



 was, howerer, sam affor reloand and allownd to rom to

 latter yar diamono apose betwon ham and his botherprimesim I'mene, and they formally atemind him of herey
 himself, which he did meremfully, but he dien there furfor the verdiet was amonneed, dum: ?! 1:3it. Ilis Litullus do. Anlichristo is still extant.

Revied by s. I. dartan.
Military Academias: aralmion for tramine men for servee as military allicers. As they mow exi- they aro ar

 and skill, athl hos athather of brute bere amd romate than
 ration of otheres. upw when charapter and ability the results of war, with all it momentone comaturnte, mant


 sary, and have been catefully organzed by the mon on-
 some of the grabithitary powers are here noticel.
(ireat Bratax.-1. The lengal Mhlitary Achdomy at Woolwich, in-tituted in lidy, fur the purquse of eduratine candidates for commixions in the atillery and engine res. The edneation is chiolly tedmimal. Ahmiom is by

 tion in matbematios, Freneh or Garman, Burlinh writine and composition, pometrical drawing, and whraphy after which they pata the decision examination in the following sutyjerts: I. Dathematien (ermpontory), ume hanios, analytial genmetry, conic sotions, Latin, Frionth, Geram (optinat). 1I. Greck, Bugli-h history. plysine cheminty
 sition, free-hand and gometrial drawing. The eandidation select only four of the anbjects in gromp I .. and wie in ermat II., taking all of gromp III. Age of almi-noll, sistom to
 and embraes mathmaties. fortitionton, artillery, military
 chemistry and physio. drills, and oxerefom: mertain whantary subject, being allowed the taken op at the optinn of the stadent. It the end of the firet bear the commen of the engineers and artilory are comdactid apparately the highest ehorsing the engine res. The ratete paty anmal onthtribution, whelh, howewr, is mit the same far all. betime greatest for sons of cividath. los- for sum of miltary and




 ants in tha enginere or atillary.

 cation to camdida- fur emmission- in the convalry aind infantry. Admision is as for the Limal Military formomy and the preliminary ontramo pammation is quit, the satme,














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 thal andown work, indotinge whemation and tartisal elix-



 the ramp at Aleratu, after whid they remen the the or-
 t. \(\boldsymbol{\text { anill}}\) duty.


 Winlwith. the schent of finnery at Shophorynes, and the Sohenl of Musketry at Ilythe

 tanle law in 1at! from lat P bate, then Minister of the In










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 partirularly fow the military surve thas insming a supply


 to a latal sehomb, with the classes sesta, yuinta, quarta, lower tertia, ugner tertia, the ages of the pmple rameng fom ten to lifteen wats; momblates maty unter any me of these

 mathomatios, physios history, rengraphy, mataral history. Arawing. and writing. Ons erabation the pupils enter the anior cardet schowl. Jhe full rourme at tho latter is five



 military seinces (mathane minm lardies. formification, to-


 physically) or the brima (il mot): thase who fiait antor the army in the gamhs. Thame who romptate tha luwer prima























:3. The Wrar derdemy in Berlin. 'Jhis is designed to furnish an whation in the hisher hramolen of military science
 amd to furni-h a supply whth rained oflacers lor the higher


 their qualitieation liots ats eromb duty ollowrs with troups, in
 and Irer from probniary dilionlites The vatranere exami-



 flyaical ant military Eadraphy, mathematies, history of - tratery, physios, military hintmy, military atminist ration, surveyins, sumeal statf haty, chemistry, military hygiene, military law, histry of literathre, aleges, French, and linssian. ''art of the comrse in mbunary. I'ractical instruction
 insfartion in minn tintios, surveing, memeral staff duty, cte. Them are alout 300 phoils. Ihmine the vacations, at the end of the firs and seemd yours. the whiens are detailed on wremeral stall duty in ams of her than their own, and on grambaton they return to their own regiments, being after-
 theing promated to cophains cont of turn.
4. I'masia has alur an irfillery amal Engineer Sichool at Ghambtenhers, near burlin, a Milhory hideng Sichool at
 (innuty at Tugel, near lherlin, imd two medical schools in Berlin.

Anstrin, dassia, italy. Guan, and nther fowers have their systems of militiry sehools, of which those of Austria and Russia are molicualide.

Thes U'siten states. 1. The Military Academy at West Point. N. Y. Jhe concoption of a milaty academy in the U. S. dates batk tu 17i6, when a committe was appointed ly the "ontinental (omprese to "prepare and bring in a shan uf a military acmlemy at the army:" No further acfion appeats (a bave heen tilken. Washington invited the attentinn of (ongress to the sulyect in 1893 , and in 1796 ruommonded the institution of a military acalemy. The rosult was, finally, the act of Mar, 16, 1502, fonming the
 mbly aix instructors at West loint, of wham only from two to four were presmet the same dime, and there were only "inhty-nim grambates. The uniform of the cathes. mearly the same as now worn, was presched by a gemeral omer in 1816.
thlangh owing much tothe efforts of its two first superintembome, and experally to (oh. fonal han Wilhams, the real imitiation of the arabluy, as it has since born, tates from the aprointment of Browt Major (allorwam Gen.) Sylvimus 'Thayter of the forps of Eneriners. who assumed command

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 law lulatimrity which still hintumash the graduate of West liant.

In 1 he alduintmont ol comets it has luen ahmithed as a frimeiphe that the soms of those who have lost their lives in
 than of apmontine caldes from districes naturally arose in










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 to this number were anded in wio two somatore and the members of the llouse of lepresentations, to be designated




 a new grmanam anila now acalemio hathing.

I'resent orghtizntion.-'Tho general emmanding tho army has, ublar the War harament, supervion and
 struction consists of (i) the sumermendent, * Aimetine the
 sons betonemes to the madems, ame commamine the military post. Tha military sat inclutes an ampant. puartermaster, commisary of sulaintere, tratione surgenh, and assistant surgeon. (2) The commamant of adet, an ontion of the army, who is the inctructor of artillery infanters and cavalry tacties, and is charged with the diecipline aid all ministration, and commathis the batation of adets. De has cight assistants, likewioe army wherers. (a) sebent emmmissioned proferars. one porleser detailed form the jutheadrocates of the army, an instrator of pretional military enginering, and an intructur of ordable and gundry taken respetively from the Engimer and ormane ('urps
 stitute the academic bard. There are ahout forty-there assistant profesins and instracters, inchuling these in tace ties, and one swordmater. Wachpt seven profesurs, all oflicers and insenctors of the arademy are ofleers of the womy detailed for the duts, wailly for a prime of four gars.

 up programmes of in-tration, cese, grants diphanas. cte. For the purpuse of dis.iplitue and actionl instration the cadets ate orgazed an athation of form emmanion cach under the sumervisin of an instruetor of tactios. with ofli-


 the third clas. Thwe are also a cullet aljutant, panter-
 position of cadet efliersatheets their relation to uther cathes only when on duty is ofleters.
 and the Diatriet of Columbia are entilled to have ond eatet at the achatory. 'lhe anmintments are made he the sereretary of War at the reghes of the Reprentative of delegate in Congros fron the district of Torritory, of which the parson apminted mat he an motual revident. The l'resident abo aljoint- ten eadets at lares. (sablidatios
 least is feet in hight and free from any inforinuz or innmoral disorder, and from anthing whinh may romporm unfit for military survice. 'Ihey mat be well versed in

 America, amb hivory of the \(1^{\circ}\).s. "these ahmitted are re-
 cight years from date of adminiom, mblonsumer diseharem.



















 the service Seq- Euaspzus, Gums uF

























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 whth the er remmomotations.


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\section*{Military Discipline Military Engincerins. cte.: see}

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 tablec whatiled from reorde withe New flamphire llis－
 atm militia，faminhed by the thisteren oriminal states：
\begin{tabular}{|c|c|c|c|}
\hline & states． & Cubamernaly ur remulars． & Mintis． \\
\hline Massarblunetts & & （6） & 15.15 .5 \\
\hline Combertient & & 31.9313 & R， H \\
\hline Virginia & & 2htic & 5，\({ }^{2}\) \\
\hline 1－musylvania & & 20， & 53\％ \\
\hline X－w York．．． & & 17591 & 3，341 \\
\hline M1ars land & & 13．41？ & 4.18 \\
\hline S＋w 11：ammsime & & 1294\％ & 20．83 \\
\hline Now J＋T－ & & 10．as & 6．1\％ \\
\hline North＇arilisa & & 7 263 & 1：1 \\
\hline South cramma & & 16.118 & \(1 *\) \\
\hline Rhoude Islath & & \(5 . \operatorname{lnk}\) & 4ir゙） \\
\hline （iburcras． & & 2.84 & 19 \\
\hline Delawarm．．．． & & 2，34\％ & 334 \\
\hline Totaln． & & 231， \(0^{1}\) & 56， 163 \\
\hline
\end{tabular}
 the wranzation，+ puipment，and liseipline of the militia， and for it enwommant while in the service of the［．S．：

 pointment of the wicess and tha athority fon traning







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 State exesotive emhl devoln whether or mot io furnish quatas called for ；2d．that the militial comblat met sont out of tha l．S．or eren hovond it．what tate：and Bll．that it Was exalusively mater the command of it awn oflicers，and

 the war wan umpelmber，hat they have never hen quated
 eitizen－mak tharown mbitiors lint the lesson of that and all other mondra wars hat lwen that eivilians are not so transformen in frestidisitalion．The armise in the field at the elone of the rivil war were veteran troopso regatars in all hor mand：and the thae that was required for the drill and disupline uf militia and vohuntec forces after pressing necessily for their immediate employment had arisen would all have been sowed if these men and have bean drawn from an chacient military rantw．＇The war of 1812 repeat edly exhbited the melahcholy anctacle of large bodics of
 slambing a single princijle of ementary tactice：and the firm hradt of hathonal militia（call of Apr．15．1s61）in the civil war was practically worthless：hefore they could be fully oramizal amd rasonably disciplined their terms of servio．Wown to expire amd thoje only acomal service fit－ tingly tomamated in the disisolor of the first linll Run．

From the Final Rryont of the Pronest－Marshal－General EMifad states Armey it appears lhat the lotal nomber of

 Were admally \(1,000,516^{2}\) men in the firld when hostilities
 scripts：and that the national enrollment exhibited，at the same time，all arailable rescrye of ？．2．⿹t．（th：＇；men．From the same abllonits is ambuled the following exhibit of militia，callm for and acrepled ats such．doring the war：
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{states．} & \multicolumn{4}{|l|}{\begin{tabular}{l}
Call of AJr，15，1bul，Call of Alag．A，1－f： \\
 there manthat tervice．Lide mambla＇seraire．
\end{tabular}} & \multicolumn{2}{|l|}{Multa for lof days， musbered intu service hetyeen Apr． 23 and July la，1e64．} \\
\hline & Quota． & Men firntshed． & Qucta． & \begin{tabular}{l}
Men \\
furmished．
\end{tabular} & Queta & Mto furnieted． \\
\hline Maib & ¢51 & \(\because 1\) & 93．606 & －1， 620 & & \\
\hline  & Th1 & 717 & 5.145 .3 & 1，\％34\％ & & ＊ 16 \\
\hline Yeraman & Jul & 5： & 4，5！ & 4.751 & & \\
\hline  & 1.5141 & 3．73i & 1！1， 19 al & 16，6＊） & 4.0001 & 6.004 \\
\hline  & Tall & ＊．11\％ & ：2．13 & 21159 & & \\
\hline Combraticol & T＊ & 3.410 & 7.15 & 5.645 & & \\
\hline Sru Yort & 13．2Sil & 13，mpi & 513． 10 & 1．751 & 12.00 c & 5.640 \\
\hline Sיw Jorsiex & 3， & 312：3 & 11．15 & 11，\％\％ & & 789 \\
\hline  & 12．510 & 20．1：5 & 4．） \(3: 31\) & 32.915 & 12，000 & 7.605 \\
\hline Ib＋lawart & ins & 3.5 & 1.204 & 1．4 4 & & \\
\hline Mary lind & 3.18 & & －． 53.3 & & & 1．29\％ \\
\hline West Vurarinia & 2， 210 & ［14） & \(4,16.41\) & & & \\
\hline  & & 4．7201 & K！ & & & \\
\hline （ \(1 \mathrm{~h} / \mathrm{Cl}\) & 11，15：3 & 13．3ni & 36．5 & & 30.000 & 36.254 \\
\hline Indütr． & 1，12：3 & 4．13－4i & 21，\％n & 83 & 29.61414 & 7．14\％ \\
\hline  & 4 仿3 & 1． \(0^{2011}\) & 26， 114 & & 20， 0 \＃ll & 11．32\％ \\
\hline  & 「お1 & TE1 & 11．tiuti & & & \\
\hline  & \(\cdots \times 1\) & －1\％ & 11．tal｜ & Sin & 5.1019 & 2.131 \\
\hline Jimme－uld & i－1 & ten & 2，l゙ー1 & & & \\
\hline ［いw？ & ？ 51 & ！rim & 11．5in & & 10.160 & 3.901 \\
\hline Mixaturi & 3．1\％3 & 1040．64t & 1． 8.4 4！ & & & \\
\hline kr＊utarky & \(3,1 \% 3\) & & 11.9615 & & & \\
\hline Kansis & & 13，21 & 1， 1.1 & ． & & 411 \\
\hline  & 1．51： 6 & & & & & \\
\hline Arlatheste & \(7 \times 1\) & & & & & \\
\hline Sorthe tamblima & 1.5601 & & & & & \\
\hline Sehnaska［terraty & & & & 1，20．4 & & \\
\hline Tいけに & 73.3291 & ：11， 516 & 331．ぐ5 & notuc & 113，001 & 2istil2 \\
\hline
\end{tabular}
＊Accepted far then months．
levimally diamis Merctr．




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 in the propurt inn of the sereral onntitnents.
('ows milk, oll atconnt of ith ureat imputance as human
 any wher. will he comentered as typuth of all milks. It is
 the butcer-fat, as chmely simmel milk uniformly has is




 of latation, it boing more marken when cows are in sonn pasture than when they ure fed dry fonder, and hinder in

 the ammontand waractor of the sulide which it antame:


Microseopir - tpparaner-londer the misraseone milk appars to be a tranarent mhatesa hinal, in which are susurnded an immon- muntur of sollowish tranilucent fromes havine a himh refration pasior and a juarly luster. These ghobace which comathat the fatty jurtion of the milk, vary gratly in size, the dianemer ramene from about
 the aremere diamoter is alome omb mom. Fhe manter of
 a colvice millimeter of milk, from which it is estinatent that
 200,000,0th). The momber gradually incressen. nul at the same time the size diminishes, as the period of hatation andvances, there buing unally for to four times ats many at the end of the lactation [urind an at the beriming. Beed
 tions are very great within the herels. for far os the suth

 Holstein milk the smallest. Dhatecont of the greater fat eility with whifh large fat ghobules abaratio from the e-

 used : the diftrence. hawher. patically disapmas when the eentrifumal eremo-sepurator is usiol.

It was formerly suphised that the fat ghates wern ju-
 thas permitume the ghtule to sthere formine smandes of butter: this hymethesis was supprent thy the fuct that ether fails to disotse fat from frath milk when the twor ate
 alkati is tirst added to the milk. the explanation hatime that
 permithe the sale to combe in contur with the lat. Is

 and as the slownom in milk mat lof divided by aritation at







 food. The average jelth of dairy animalo thatarhom tho

 all wher Thorl- in phamity of milh protureal. The . Ad-










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 milk dimetly attar it is arawn delars tha eramblation of



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 Heats catablation ot the milk bake plate without the dexrelopment of adil. Tho examination of a few milles which conernlated in this way showed in whery ease that the




 pradity of the milh.



 sulid. reysallizitur in the flombie syatem with one mole"ule of watm, which it whom spowly at 100 C (: it is

 lathramancl. a lownot ammphoms mblid. Tho dry crystals ato haml and gritty hetwern the terth, and have omly a vightly swert tasta. It is solable in \(\mathrm{E}_{\mathrm{a}}\) parts of colid "alor amb in 3 g barts of hoiling watw: it is insohble in almolate aleohol and in wher. With fire vast it dens mot underen the alowholie femmentation bit by the action


 montation. lioing rhanged into liactio arid. and to this is



 will as in flarmacential preparations.
 commoxtod with the romblasition wif milk is that it wontains a small ammant of eitrid arid. Suxhled fors ealled alten-





 uf it is conlaimol in milk, whlat the milk of at good row




 the rambur.









The \(\mathrm{SO}_{3}\) and a protion of the \(\mathrm{P}_{2} \mathrm{~S}_{5}\) int the ash are dorived from organic compmonls in the milk．＇I＇he ash ammants to about 0 －

The tonal solids in cows milk vary fonm 110.1 per cent．to \(19: 34\) per cent．．areraring ahout 13 fer acht．

In the graphic tahbe given bedow ary erouped tugether all of the eonatiluents mentimel，in proprotinus which represent aproximately the ateratar comproinjon of oows milk．Joremor，as thic same romstitmont－rittre inta all milk，it is typieal for milk in feneral．It is sale tu sity that

 rertam fommlion mital either for the＇pathtaty or quality of thair milk jotulurlion．








100， 4
the individun wariations in the composition of eows milk show wifer differenest than is fember hetwen the average compensition of milks from different rares of animals．

TuE l＇roromtion of Mak－cosstitcests．
The averare composition of normal cows milk derived from nearly Nolomatyse collerend hy lécuig from all parts of the world，imeladine milk from all borels of cows kegt moler a preat varicty of romditions．is a follows：
\begin{tabular}{|c|c|c|c|}
\hline COMPONANT PARTS． & Mann． & Maxtrume & Mlathamar \\
\hline Specific gravat & 10315 & 11837 & 11464 \\
\hline Water． & \(8 \cdot 17\) & （k）10， & N1 隹 \\
\hline Fat． & 369 & 617 & 10 \\
\hline Casein． & 3 （12） & 4 & 1）\({ }^{\text {a }}\) \\
\hline Albumeu & \(0 \cdot 5\) & 1.16 & \(11: 3\) \\
\hline Supar & 4 N & \(6 \cdot 4 \times 3\) & \(\because 11\) \\
\hline Ash．．．．． & 0 －11 & 12 & 4135 \\
\hline Total solids． & \(1 \because<3\) & \(10 \%\) & 4.31 \\
\hline Solids nut fat & \(9+14\) & & \\
\hline
\end{tabular}

The ciremostances which contribute to the wide watrit tions shown will he comsilered umber the following hadis： 1．Individuality end líace．－lu almost viry herel of dary cows will be fumbl some animals whind tive furs milk，measurel by the amount of fat which it comatas， and others whieh five milk moch richer than the averater so persistent are these traits under all mataral conditions that the indivinhad tendenoy of the animal is recorgnizend as the most important factor which contrihuter to the patity of milk promberd．There peratiarities may be interasied and，to a errtain extent，established hy airefnl ireenliner
 heed charameristios which，within ceptain limita may he


\begin{tabular}{|c|c|c|c|c|}
\hline Patits，fite． & Chatitul Imans istele diartis ary 3ul J．ra & Starthern． & \begin{tabular}{l}
Wulch rattic． Holdelmen ras．， \\

\end{tabular} &  \\
\hline Wrater． & \(\therefore\)－ & －\％ \(0_{1}\) & Ni． & Mi 103 \\
\hline Fal & 1 is & 3 i, & ： \(1:\) & 3 3is \\
\hline Consrin & 8 拄 & \(3: 1\) & \(3 \cdot 11\) & 311 \\
\hline Susar & \(5 \cdot 15\) & Stis & 4 til & \(\therefore 13\) \\
\hline Ash & （1） 14 & 11 （t） & \(11 \%\) & 11 til \\
\hline Toral sulids． & 11：31 & 1：w & \(1 \because 1:\) & I3 118 \\
\hline Solinds mot fat & at in & ！\({ }^{\prime}\) & －\(\div\) & （1） 10 \\
\hline Number of amalys． & 41 & i 3 & \(\because 3\) & 11 \\
\hline
\end{tabular}
（Jersegs and（inerusers）．whorl for the moiformitr rinh milk

 toward quantity of milk with litte maral to its patity． bave come to be the greatent milk－pronduere，athourth the


\begin{tabular}{|c|c|c|c|c|c|}
\hline BREEE． & Vuthe？ of cum． & yirid of （anli jos ds：1t． & 1＊er crint of mad & Per curit． uffut． & Per cebl． of nolud． a 1 f f． \\
\hline Shorthourns & \(11!\) & \(4.3 \cdot 1: 3\) & 1この＊ & \(3: 3\) & 9.14 \\
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\hline Jerseys & 115 & ＊is so & 14 ： 31 & \(4 \%\) & 1．41 \\
\hline Jerseys & 4.3 & \％ 41 & \(11!61\) & ¢ 12 & 4． 4 \\
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\hline 3. & －小i？ & 1314 & 4110 & \(3 \cdot 3\) & ： 11 & 11 & － \(1 \%\) \\
\hline 4 & 5\％ & 1：313； & \(\underline{+2}\) & 312 & ， 17 & 11.11 & 914 \\
\hline 5. & 湤？ & 13.8 & 43 & 333 & \(5 \cdot 4\) & 119 & ：13．3 \\
\hline 4 & －143： & 1：3 911 & 435 & \(3{ }^{3}\) & \(\therefore \geqslant\) & 113 & ！ 515 \\
\hline \％．．． & 5111 & 11 m & 4 ＋ 3 & 3.1 & \(\therefore 1\) & 117 & 4 c \\
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\hline 9 & 4．14 & 1110 & 4.8 & 3－41 & i 13 & 11 & （1） \(\mathrm{id}^{\text {a }}\) \\
\hline 14．．． & 4いい & \(11+1\) & 4.4 & 34 & 539 & \(11 \%\) & 1： 15 \\
\hline
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The Milking．－Tlow tire puttion of milk drawn at any

 onherwe there is very litele sariatinn from the bermanger
 first and last half－fint from the same milking illustrate this 1mint
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{NはK！いか Aい eTridpldais．} & \multicolumn{2}{|l|}{} & mle． & \multicolumn{2}{|l|}{} \\
\hline & Water． & S．1：45． & 1 nt ． & Whter． & S \\
\hline First mable & －4， 15 & 11 & 139 & 4.38 & 1198 \\
\hline Striphala & －10 & \(1: 115\) & 9 Pr & －1： 13 & 110\％ \\
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 in a larime yind ot milk than lan milhimas．Gut in milk ridure in las








was mot in facior of l：Whary a mow was milkid fazatat








 －in milhines whon milked rar lat at atime，milk which









 when milked with thtere and ift fer ent．fat when milkent
 Cinturation of the milh i－mmer active at the time of milking






 imbate lhat nu rule that will af！ly tor all cows can he
 ably lowne ration and others lo another．The omby point unn which all agree is that a semorns ration made nj of

 rephtation of incrasing the fit in milk may he mentioned falm－1mit meal．coctanut－meal，sugar－mbal，and corn－germs：
 the surar－meal in a waste prominet from the mamufacture of
 froblut from the hominy－fandme．Fouds rich in fat have antendenoy towardinereasine the fat in milk．The follow－
 The amount－art focows of 1.000 lb ．worght in full milk：



 mail．：Ih．（d）（lhwer－hay． \(12 \mathrm{lh} .:\) oat straw， 8 lh．：corn－

（olostat \(n\) is the milk wereted for a whot time after par－ turition．It has a yollow ondor，is murh more viseous than normal milk，has a salty tante，a peradiar mbor，and gener－ ally a sliehtly acid reacion．Wwing to the laree amount of sublels which it enotams，its areitie gravity is high， rarely falliner holew lollo，and in wextrme cases reaching
 to the ghlubles of fat，mumerous gramular budies of variable
 nete of fitt．These bahles，which are pecultar 10 colontrum
 rally suppumed to he cast wf epithelium ectls from the whlar，but more deembly are comshated to be white blood－
 cells rapidly dimininh in mamber from the tirst milking，

 alike．Its mon mation puablarity is the hioth per cent．of allmanda，this beiner from ton th thinty timats as large as in
 ＊hat and fal aro anally low．Tho followiner analyses by Finglime illast rato thiv fat
\begin{tabular}{|c|c|c|c|}
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\end{tabular} & Fifth dns after calvinge． \\
\hline Smerifuegrasats & & 1 小il & 1033 \\
\hline That moxida & & 2－il & \(13 \cdot 15\) \\
\hline fint & & 311 & \(3 \cdot 4\) \\
\hline （＇0－1） 10 & & 5 \％ & ： 4 \％ \\
\hline  & & 15 & \(11 \%\) \\
\hline Sugar．．． & & 14 & 4 5 \\
\hline Ash & & 219 & （1）\({ }^{\text {\％}}\) \\
\hline
\end{tabular}

The average composition of the first milking as friven by Koentig is:


Othen Maks-hmmen mill dithrs from (onws milk
 It is whiter than cows" milk, and manally hav ath alkalime fo. action when lrioh. The emed formal hy fla aldition uf rennet or midz is tod as firm a that from enw milk. fis





Mares' mill: is jwne in fat and protein, and rich in sumar.

 milk fur infants. Nherpis milk is wry ribl in fit mad wher
 for the mamufacture of cherene ol hiorh grale fouts mill is very similar to cows milk, hat combams on the aterame a little more protain amd fit. 'lha averare combusition of these milks, acerding to Kexnig. is:
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline varieties. & Waker, & Casela. & Albumea. & Fib & \[
\begin{aligned}
& \text { W. } 1 \mathrm{k}-\mathrm{x} \\
& \text { antar. }
\end{aligned}
\] & Ash. \\
\hline Mares' milk & 913.74 & 191 & (1) & \(1 \because 1\) & 5.15 & 113 \\
\hline Asses' milk & 896 & \(0 \cdot 17\) & 18 & \(1 \cdots\) & \(5 \cdot 19\) & 19.61 \\
\hline Sheep's milk & 81) 20 & \(4 \cdot 4\) & 15 & \(6 \cdot 6\) & 4 113 & 1-9 \\
\hline Goats' milk. & 501 & \(3!\) & 103 & dis & 415 & 0 \% 6 \\
\hline
\end{tabular}

Preservation of Mak.
Nearly all the changes in mitk whith cathe it to lowne unsuitable for ford are canced be the grow of micerom-
 after it is ilrawn. These germs fall inte the milk from the utder ame the skin of the animal Inring milkines and from the air, which always comtans immense munthe of them. especially in stables where the milkine is done or are deposited ijem the vessels in whieh the milk is hamiten.
 with the greatest care it is imponible to exchale them entirely from the milk used fur domentic purpors. These germis maltiply rapidly in milk, amp within a few hours or at most within a fow days a corting to the combitions under whifh it is kept, the intiginat properties of milk hecome entirely changel. The mont common change is that
 tion of the casein. There are severa kimh of argimisms
 tion of the milk-sugar inta datio andi. Only a pertion of




 sible to exchule wrms from milk, it is nemary, in ord.r to, preserve it und haned for eren a few home wher for for
 gatisms or to doatroy them hefore the milk has herman an-









Antisoptios. (ertain mith amtiontias ample whith may










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\section*{Mithme of dxam-}

















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Apparatus.-The test-hattho(Fig. 1) for thic test shondd contain mot less lhan 40 .antin 1 m. Wh to tho meck. The erambated 13 ork
 6mm, innlameter: the grallated jur-
 be divided into in elpual parts, cach of whith represents en per cent. of fit When 16 arammes of milk aro taken for the tist. The pidetto for meanarint milk (Fige ?) has a mark at 174 chbice ron.. ind will doliver ammoximattly le grammes of averaga milk Tlae aloll mark at lo rubia (an. "l'le contrifugal mathate for whirlines tha bathes should be be arranged that the drum carrying the bottes will make from 700 to 1,0010 revalutions per mimute. The litumeter if this dranis =lombl mot be less than 15 inches and mond mot exced ?0 inchrs. ("ommurcial sulphuric acid havines a peroitic. mraty of \(1 \cdot x\) to 1 -8: is repuined for the thst.

Making the Trst.-"her wilk is first arvinlly mixed by jworing fom one vessell to amother, aml theprofor ammant ivmenioured into tho tas-botla with the 1 rid rubie em.

 the atal mationes 'lhe luttle is then haken matil therontmat - are tharomath-








 milk, and in rhumal.


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quickly with the polariserpe. Wharn the nther eomstatuente



 at low redness hatal all of the arganio matter is destroyed.

\section*{}
 and the addolon of watur. Wwine to the whle barmation in The amonat of fat which diflerent mith- montain, it is inn-




 Inse than a manaman ammunt of fatt. Whath is lixal by law.



 as pure violatos the law, and may brymandord, althangh the
 not by dimmesty un hi- part.
'l"la variation in the amomat of sontins mat fat in milk is murb kes than that of the fort. In mixerd malks the solids



 milk comatan a trille more mbila mot fat than puro milk, while mills to whid watm has been abded comain less. If, thurdore, a sample of mixed mill is found which con-

 Watered milk turns entirely ugn the amombt of bolids not fat, athl has mothing turdowith the amomat of fat which the milk robitabs. 1 milk may therefore contain a higher per cont. of fat than is reguired by law and sill be combented as watered if the sulde mot fat are below shamame

Instates where there is tur laral tandath for the solids not fat, ho arbitrary rule can he wiven for detomining a watered nilk. Frames of this kimd mas. lane ber. be detectal in the following manmer: Whenever therendids not fat fall mush below ger cent. it is a suppotan circomstance, and a sample of milk from the same hord. laken at the time of miking by an anthorized fatem, should be [wled in the same way. If in this sumple, which is known to le gemmar. the per cent. of molide not fat is fornd to be about the same as in previous trials, it is probable that the milk hat mod bern dampered with at any time. If, Howeror, the fer cent. of solids mot fat in the samplas akenat the farm are uptw the required stabland, it is strone evinemere that wand had bend aldal to the milk whidh tested luw

Tho ustal methouls of analysis alfermy deswifed arw too complicated, and requide too much time for the usw of milk-inspertors, who "ftor have large mumbersuf milks toexamine in
 by them is to determine the seropice uravity of the milk with a delicate lactometer amil the joer
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 lated with -alliciant werorary
 aldipted to the examination of milk: many Kinds atr in Bre. all oft which have flo same wenemal form. vi\%, a narrow stom to which is
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William A. Coffin.
Mil'lard. ldatu: clerevanan amd author: b. in Ballston,
 denomination 1sho: Wath pastor of a chureh at West Bloomfield. N. Y.. 1vic-ije, amd at I'ortsmonth. N. 11., 1830-40;
 23 enl. 1NS) ; tated fur surval vears a monthly magazitue callad The (iospul Lemimury; visited ]'allastine in 1841 , and publinhal A Ammol of Travels in Egypt, Arabia Ietrua. "mid the Joly Letmil twiny 1s:ł1-4 (Rochester, N. Y.. 1stio: settled again at Wen Blonmfild. and was from 184. ter lefia Profasior of libhlienl Antiquities and Saered Generaphy at Headvill. Theolomiad smminary. D. at Jacksum, dioh.. Aur. : 3 . \(8: 3\). See the Life lis his son, Rev. 1). E. Thillard, 1 sit.
lievised by ミ̀ M. Jackson.
Millall: Sé Mabate.
Millnury: tuwn (set alf from sintion in 1sl3): Worcester co., Mass. (fur luation of county. ser map) of Massachnsetts,






 linen shos-thread, an eleetricearr, amd a loom-hedelle manu-
 sash. ilonr, and hind, and wond-tarmine fatorios. In this town Thumas Blamelame comstructal the firs mathine for buming irrembar forms. the prindipe of which has never


Milledareille: rity (formerly the statre eapital) ; capri-

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 and the cond of time．

S．M．Imふons．
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 a genus of Itydroideat which molike mest hatroild prondues a sort of coral whioh is smonthand banching．and has wery
 those of the true corad in that they are dividen hy hamen－ tal partitions． 1 an atomat of the preano of then parti－ tions the millapres and thair allies fomary were ernifed with a number of forsil forms in which similar partitions or＂tables＂exist，in an urder，Thelututer．＇Phe insespiga－

 never hecomes sparated from the parent stack．The aneques of millepere are few，athl on acennt of their dolioate shate－ ton thay phay bat a minar fart in the formation of enral reef．The staremo coral，so common in tryinal waters is Mille pares allicurnis．

J．S．К1sember．

 184．In 18.54 he wont to Willamethe Valley，Wre，ath suen after to the Californiamining requons．In sigo，aftor


 paition four sears ；setthen in New York uhout wat hawing made a visit to unrope in 1－io．Ho wrote stages of the







 a jummatiat at Wishingtom，W．（＇．．and in lini remment th






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 Heking the 1hat of hife（1－1）：Mary of lathouy（1－： 11 ）


\(\because\) に．月いいт．


 Lumbm，somewhat celderated for his reaty wit，athl died there Aus．1t hi：s．The cullection eratited for Millers Josto，publithel the year after his death 1 tidnow wally
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 fional antherity of congress as a cotordinate hameh of the Gowrment was for the first time 小etined: and the motion lufere the Electorad Commission in 1sit. which led to the judement that Comurose had ne anthority to gol hedind the rothme of the learal oflicers of a state. At the centennial celefratinn of the adntion of the Federal Comstitutimp here tonsention in Philathlphat in INo. he was the frincipal orator. W. at Wahington, I). C'., wet. B3. 1s! 10 .

Miller. Wirxiar: pulitician; 1) in "rwego en. N. Y...
 cance a teacher in the Fort Ehwarl eollegiate institute, but when the eisil war inek.e ont he enlisted as a prisate in the Fifth Naw Yink (avalry. He fonght meter (ien. Shoridan. and aftainod the ratk of lientemant. He was a delesate to
 Hented to the Now York Awembly in 1sit and 1sis, and
 alected T. S. Sunator from New Fork for the muxpred

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Miller. Whamy: fomder of the set of Millarites; b. at
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 tom. Washiberon co.. N. Y.. : mat in \(1 \times 31\) beran to mantunce the gjeedy setent comine of Chri-1. Which. hy his interpretation of the hithical prophesios. he fixed for the your 1 s 43, at which thace the world would be destrover. In a few
 mumbred many homsands. and wre fuluhary lanwn as


 by James Whate (Battle (ratek. Mich., 1sion).

Revised by A. M. Jackon.
Miller. Widiam llabumes, F. li.s. : mimahagint; h.



 of panlamentary sandants of lough and weight in phere of thase deatreg be fire in 1ser, and undertonk the restoration of thustamaid of weigh, which he finishat in Mar.,
 the comlition of the exflughere standards and in \(1 \times 80\) on

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 mile \(\mathcal{N}\). uf Inarinhurg. It is in an arrieultural regiona and netir the famme lakene eom-tiefts; is an important combshiming fuint : and has mambatorits of hmber, axles. whers, taps andidies, broms, and earpets. Jop. (18s0)


\author{
Ehton of " Herald."
}

Millers Thmmb, or River Buhleade : a small fish of the (w)d streans and hakes of Northern Kurpe. Its scjenditic name in Cottus gobio. It lies quiesent on the bottom
 is very destretive to the eque of trent. Smurous smilar -herics of cottus are fomal in the ewhl hroks of Northern America. see (ontides.
D. s. J.

Millet [from Fr. mill,t, dimin. of mil (whence Jng, mill, millet) : ltal. migtio < Lait. milium, millet ; (f. Gir. \(\mu \in \lambda\) ivn and (). Eng. mil]: any whe of humerous grasses of sereral distinct quera and species. The aliliun effusum. Gombl thrughot Eurna an! Sorthern Asin and in the Northern 1 Y... is a slender grass of the tribe Punicea, 4 to if feet high. whid haw nerer been cultivated, but is ahumbant in the woodlatms both of Great Britain and Nieth America. The true, eultivater millet of ancient and mulem times lohnges to a third gans. Pomenm, which embraces nu bes than sion -peeies. I'mirum miliaceum is sown chiedly for forage. thongh the setds yield a very nutritions tlour. The Thumarian, Gurman, and Italian millets are maw elasifical ty lotaniste moder the gemus Sefaria. It is these conarse setarias which are known as millet in the U. S., Whre the erop is grown chiedy fur forage, and is matr into hay. The requisites for sucessful culture of this mildet are a moderately rich, well-tilled suil, and a fine and elowely eompacted sedi-lud. The seed shombld not be sown matil the fromed is thorongly warmed, Jume \(1-15\). It is sown hombast and lightly bused in. Sillet requires a latre amment of moisture from frequent showers in order to make its best growth, but it will bot do well on a wet or sodden soil. It is a phant of very quick growth, and is nsually cut within two months after sowting, or as soon as the swed-heads have apparen, and hofore the seed has hardoned. The process of cuting and coring is the same as for hay from ether erases. Millet hay is less nutritions and has palatale than that of the finer meadow-grasses, hut since it fumbines a large ammont of fairly nutritions forage amd is casily and yuickly yrown on new soil, it is a favorite erop in those lucalities where permanent meadows have not yot become entaldished. If the jlant is allowed to buenme ripu hefore citting, the forage is less ligestible and hos palatable, ind the pipenel of partisily ripened seecl whtains a dimetic principle which makes its use as a fodAuc abjectionable, particulariy fur horses.

Revised by ll. H. Wisg.
Millet mé yä, dimé: senlptor: bo in laris, Sept. 27. 1s1!: studied umber lavin d'Angers: heran to exhibit in 1s 42 , and attracted gratat attention in is5 by a stathe. Aritne, which was hought for the masemm of the Luxembemre. Of his other wirks may le named the Alercure, in the Liouvre, and La Jemesse ifficullant les roses, on the tomb of Clenri lurger. the foet of helumian life. and an
 colowal entustrian sathe of tereingetorix at Alise-sianteRaine in lurgumby. Ite herame an wher of the Legion of Honor in 1870. i). in Paris. . lan. 13. 1s:11.
Mil'let, l'ravis Davis: geme and portrat lainter; b. at Matapoisott, Mass, in intis: was a pupil in the Royal Aademy of dat wap, Whate ho won metals in \(18 \pi=\) und 1sa: stidient alsu in Frame and laly: wected a member of the Suchely of Anoriom Artists LSiso: Sational Acale-
 momber of the Ameriem Water-whom somety and lowal Institute of Painters, lomdon; was awarded a secont-class madal at the laris Fixumition of list, His piatures repreront life in England during the "irhternh century, and somus in andent home. Pompoii. and (ivere. He is a writ-
 math at hish reputation as tha coprespumbent of the lamen Imily Trtoraph in the 'Pureo-Rhasian war. De illustrates

 Chamey Bequest at he Royal Ambmy Exhibition. londum, in in!!e and the of his hest works, ith English Inn, is










 tion from hather he diren comate with the sembs he
 poor, and for a done time hiv piethershometht himbut hisht pecunary return, but towarl hae ent of his lifa they beram
 abla tose any merit in thom. Sine his 小oath his work


 This pieture whe exhibites in the prine jatar aitios in the

 Millet's mantorpicere, hat it in by momethe the lant of hio works. It this tithe is to be kiven tome of them, it wa-


 Nillet was onn of the greatest aftisto of momern times. The list of his best work ineludm, hesides the two alrady meth-

 (William lackefeller. Xiew Yorks: locevel hethany ont his
 limo, Paris): The Turkey-hepor ( C . A. Data, New Yonk):
 (not carried on condintion duincyshaw, Boston): The Phant-
 tors, Daltimore): Breaking Fhar (W, T, Wistera, Paltimome :

 Afred stensier (laric, 1scl).

Whalam A. compes.
Mil'li-c'assonde. Gusxisa: pat and improrisehtor: b. at Taramo, Ahrazzi, Jaly, in 14ed. she is satid to have
 enteen fomm at literary gude in do Martinio. Havime
 impulse to cmulate him, in whioh sho was equonratiol by Regulti himsilf. she gate pablic fimpeniwatme in the Abruzi, in Cababria. and finty at Saples malet the protection of the harned timbon Gefoinn. In the same wat sho made a tone throng the Two siedione was homen with
 name was not germally kown thronghat lany antil ifter

 sucees at Turin, then the rowal resideneco and a pan-inn
 she was appointel inspecter of the chementry sebowle for girls of sombern laty, A pornal anherl for yinus women wasafterward whblobed in Rame and she was aldented superintembent, a buition she bed till hor marriare with
 published varew was antithad gunl: it pian bal preyin dellu
 umes (18t:- - t )














 etation (in same surime 1sent; Elighth: his Leth and Times
 fion (Expusitor's Dible sertes. 149]): The Asensum and

 Preds (1s:11). II. .J. litithitus.























 the mater in his art. Ilif firt work wa- a bat of Jodmt:



 thormannt. "flue result was tha stathe on lafavetto


 the hattle of Pribeetan, alat in Wianingtin, which wa- ant


 1-4.


 studied haw amd was malledt to the bar in lwa. He was - in


 the abuned enplayed in the argament hafore the lirition



































Mills, sumbe dus: " father of foreign misems in



 Wa- tha tirst urgazation in tanalf of that obect in Amer-





 the sulijeet of misomes an ate whinh realted in the fompa-




 sumpty and the Smatican Cobnization suopty, as well is wher mixumary orsamations, and was sent by the Cohn-

 reated liret to Enclam do contior with Britioh phatanthor
 following yar. in what i- mum limeria. but che the retmon



Mills, Sma-thas Bum: pianiot aml teacher: b, at

 studied in the luspar comervatory and un gramation

 pinnat. Ite wats fur many yare a faniliar and farorite pianist, amp has pased with all the grat oredentral somp-
 with Farelat and farl lasa under the hat man management; but ermbally he retimet fom publice life, and has
 are almont exclumely for the piane, and belong to the brilliant bravura school, of which he was a tine exponent. 1). E. Iherey.

Mill spriners: past-village of Wayne en. Kys: om the
 the Feateral tronss

 this phace. The latter wore bul ben. Felix K. Zolliomiter, who waskillet. and his forens deteated with a lows of \(1: 00\)
 35 were killed and 1 ! 4 womded.

Milltown: a pont-villane of Charlote co.. New hronswick: on the st. 'raix river ; contignule with St. Stephen, and directly "pposite Millown, a most-village included in the limits if the city of C'ilaic, Me... with wheth it is cen-
 Guantitice of lombur ame sawd amd shipend here. Thare
 sides an culactond fatory and other works. Millown has

 havisal ly M. W. Ilakregtos.








 wotton, aml at whkly new











Sumbinghill. sopt. Ni. 1Nis. dlic chief works are a prize


 (1) 1 ): Rimpton herfures (1-25): Mistory of the deces


 History of the Iteclime ond foill, with notes, cle. Ilis It

 in their time. but are now forpontel wh the exatition of a fow hymas. 1 is hinturad writiog at first acomotered
 moneed liberal ('hated new - on whith they were hased.

Revieal he W. S. Peme.
Milmove, Maktis: andpur: hat aligo, Ireland, sept.








 by the aty of hoston to exerate am amy-ant-nay monnminet. which was pheed on butan (inmon. I) in buston,


Milne duran, F. (i, S. F. R. S.: geolugist and summo-
 himedf as astudent at the leasal sidend of Mines handon:
 fommand: sintod, with Dr. leke, Northwest Mrabia and
 and (hulder mater the Taphese (bormment, a poat which hee still hodits. Maedo of lis time has lnem devoted to seismonory on which he is the remenized authority. He fombed the siomongical sucety of Jipan in 1886, ind is auther of the volume on Earthqutes in the Natural Scichecescries.
J. M. Divos.

Milne. William. I. D.: missionary ; b. at Kinnethmont, Herembhice sothand Apro. 1ang: went to China as a missinnary in 1s12: visited the chinf islands of the lodian Ardipeligo, and extablished himself at Matacea, whence he "irculatel h hronshont Eastorn Asia the seriptures as well as religions how in in Orintal languases written and printed by himself. He published The Indo-Chinese Gileaner, a cinarterly magazine. aided in transhating the bible into Chinese and wrote he frownet of the Irotestient Mission to (hima Maharea, 142(). 1). in Sahacea, May 27. 1892. Sice his Life and opinions. ly lies. Robre Philip (london. 1s:9).

Revised hy S. M. Jacksos.
Milue-Edwards. Mimoxer, M. D. : geologist and maturalist : sum of Itari Milu-Wawards, naturalist: b. in Paris, (ot. 13) 1405: gratuated as Noctor of medicine 1N:59: be-


 is the anther of many important pars on zölory and partienlarly on the anatomy of forsil linds. mest of which have






hemised by F. A. Licas.
Milne-Edwards. Ilenrf, M. II.: naturalist; 1, at Rruges,



 if the Fenulty of sidnews member of the Xeatemies of



























 crater forming an＂sechem hartmo．It is riah in oulphar．



 many of whom ate dobly and hefomen．Antigutios


 French（ F wapmatht．

1：．A．（ikonemior．
 son of Diotjmens．Ha was whe of the most mond athlates of antiquity having wn the prize as wrether insix alym－










 partisan of lampay and friand if tha＂xibul（＇inemo lat
 Combins fourght daily in the streot of homes and after




 Was unable to provent the ramedian of tha atomad．He







 cents af the monery of the \(l^{\prime}\) ．



 Thegther with the ether（iterk－he wam left in hatre of the












 whole east of the armanent．and an he eobalat ant pas this





Miltom：





















\section*{}
















\section*{}































 Inturiel l＇quscopntion．The lio．．














 fuple in its straterle with its king－mamely．The Tonnre of



 amoner whinh was／h frexion Serande．The attark on Sial－
 at the demand of l＇arliamont，as in 1649 Diltum hatl hen
 （＂monwell．＂lhas pesition he held till the liestoration in
 Wurk only hey the ado of a romber and a serihe．After the laturation he was compulled ta kexp himsilf concealed for anme time，anf evon altor that het of oblivion he continmed
 rine Wiodeork．but she died fiftern momthe after in whild－



 lishet］in lifit；Mistory of Brituin in 1600：litradise he－

 whide shas his rery hemembex conceretions of dilferent



 Et for the dirnt 1 ano mones：the suownd edition was not
 hor intereal in the work for tre．Jmone whers，see Jas－ smasheff of Hiltun，tivols．，1six－sti．The most complete afition of Diltuns brose Worlis is that in Bohn＇s libisury

 ERatiore．
levised by il．A．Beers．
Milton［oblege：a combuational institutim at Jilton，




 musis．＇The entowment fimm amomuts to abont sise， 000 ；

 Whatford，I）．I）．，is jreaburt．

W．C．WHatFond．
Milwanker：rits：capital of Milwankee co．，Wis．（for Joc：a in gran，and the（hin．and N．W．．：the（＇hi．．Xil．aml St．J＇．the
 of Chicaro：area，？l sif．milas．

It is luated on a frantiful hay romming inland about 3
 of whioh is buing convernd by the［T．S．Govermment into at

 s．till it mans lhe lake，whon it turn abouplys．S．




 Wankere and all the jompotant ritice of lhe timat latios．












and other purtions of the eity and suburts．At the soldiens
 pensibe halhlings．where 2.600 disibled veterams are cared for：and surmanding which there are for aters of land Whichare thownopataml uad as a jatk．The rounty court－ bouse is a large and elegant struture hoilt of lake supe－




 sition lonilhiner，Where an ammal rehibit is hall，wos over sibur．000．＇The layton Art lablery，an elegant buibling， eontains a fine collection of paintines．The L＇nion Railway Station and that of the Chicigu amd Northwesern Kailuay Company are tastuful and subatatial strmetures．Among the chareh edifiees worthe of swedal mention are St，Paul＇s EDiscopal，Norman arehitereture：lmmanmed Prosbyterian， Goblie：Sit．Jamess Finmopal．tiothie：and the Chureh of Gesu，Gothic－the last，luilt by the Jesults，is the largest amt most expensive charely in W＂isconsin，and has two spires，one ewo and the other 900 faret harh．There are 125 Churches，includint 30 Latherm．St tioman（atholic． 16 Dethorlist Ejiscopal． 0 Congregational，\＆I＇restrotarian，and i Protestant Episcopal．Dilwanke is the wat of a Roman Catholic arehbiahopire and of a protestant Episeopall liah－


 and Luthuran（＇hurches have a harge manher of parochand selowh．Whach，with afew other acatemies，have ath coroll－ mont of lx，itio．There in a mormal whool umber the regents of the state，ant ：harh sehow mallo the dity school board． Dilwanke folleg．for wommen was established in 1849 ． The Roman Catholics and Intherans have lare colleges in the city amd suburls．＇The Convent de Notre Dame，the mother－hnmse in the \([\) ．\(\therefore .\). owns and occulbes an entire splare near the eenter of 1 hat city．The Woman＇s Club of Milwanke owns a waluabe proproty called the Athemamon， which is unal as a heathuarters for the clubs sorial，literary， and bencoobent medings．＇lhere js a lares momber of ehari－ table and bonevolent institutions，among which are an ex－ collent traming－sehool for morses， 12 homes for the aged， and orphan asylums． 10 humptals．1．5 relief and ainl associa－ tions，50 hebevolent sucieties of various kinds，and \(\sim\) judus． trial sthoms．There are wer 100 social，liborary，national， and athletice chbos，suth as the Nilwakee Club，the Calumet
 Whast（＇huh，Jon Ami Clab，Oll Settlars＇Club，Jhamix thab，Curling（＇hab，etr．，stme of which oceupy costly bmikl－ inss of their own．＇Tha．Tumer socibties art strong and Wealthy，and hate dome much to promote phesionl rulture． Wilwanke has long been fanoms as a musical center，and its X］asial sumety，Arion（＇lals，and（＇ecilian Choir have done mach to rabr the masionl stambirl．Inclading those combecterl with daurehes，there are in Milwankee abont 50 mansical surieties．＇Thet valuation of the real amd presonal


 half of whicls is fer the water－works，which the rity owns


 vestment and lom emmpains，and il daily．it semi－woekly， 36 weckly， 5 somi－monthly，and 15 monthly periodieals． ＇There are z．bis mambathrine edablishments，smplosing





 amd moat－patking．＇The ammal vilues of the chiof pro－





 fatr，and how the anmand llaths mamber bat a fraction

 luan comstructad from the hake th the rivel abote the eity，
and now the watur of the river is kell ghtte pure by buther


























 vimin，who wente but hore after the birth of（larint（biith－




 with the Bralamanite ritmal：hut thane texte don mot wit forth












 manical soribthre






 wert of thatr merit unce exhatated．thay are liable to shift to other atmel lower forms of exinteme if．in the aboume of




 isted from all chernityond that carlythote own phato with them．


































 （か！－）










 content－uf the－－＝1tm．

L．li．skoz．



































 Ghare thoir immmaty：at the－hap＂of hammhen homi－．



































 name th the great suh-tamity .Momosere, distingui-hed by




 mant Ameriman, of which hu lem than liftem weene in the


Min: an Eqyitian deity, worshiph primipally at KM-


 but the (inelds identified him with Pan.
(: R. i.





 The ittie mina is genmally stated to hase betn worth






 the "ommand atu! som brame tha" mat efliciont of the


 Xavare 181: ; fantribmed to the vimarion of samana

































 rome whed they had untrembe: the sulpert which they









Mi'na Rird laks, mitu. from llimd. muint. starling,




 hill and fort an yellow. It is very lixely and intolligont.


 the Malay Arehiongen
F. A. Lictas.



 and reviens hamurnu or satirical pioces, attanking the





 I'romethers. C'ubrund, wt




 potime in 1-gi. Amone his mmurns work were Comes de constraction des motrighes qui ithldisent limacigation des remites nt des rounher (1s4): Sotions flomentaires






 lancelike shaff of herick of stome whith risce from elose mit-










Fi. I. (ikuspear.









 . 11110.
11. 11. smitr.





 tignera, raming mathwat thenght the midite of the
state；the s．rra da camatra，out the 16 ．：and a aros
 Canast rathans amb onating the low wate of the riwern


 the mombats，wavially in the womern fart，thome are











 Indian tribes．The primetipal rivers are the dequitinhonha and lace．By far the gratar jart of the f＂palation is gathend in the sonthon part，where anome the tamatains． there are many fortila valley amblopes，well andatal for
 ing states．Southern Nimas dieram has a gond syatom of railronds，conmeting with those of sion Pomband lion de
 manufactured on a consilemade sate．Thu captaimer of
 As the name inticate，it was lome moted for its mines es－ pecialty its roll and hamond washome．It is still the prim－ cipal mining state in liratil．hut only a fow of the ernd fle－ posits are potitably workd，and danmod－mining is ararly

 tained from this stat＂；saldaires and rubiw are fomm in conjunction with the diamomb，and many wher saluathe mintrals have bed diantered，lont fot extracted on at



 （ierbes（1～6：3）：Burtun，Explorations of the lliyhtames of the Brazil（18t5）．

Itabert lĭ．suma．
Mincio．minthä：a riwer of Northern lably whim imues

 of 50 miles．It in mavathe for hares from it mion with the Po to Mantu：．Ho watora are muth unel for irrigation．









 1）ec．

 mind，lir．pevos．mimb．trometh of－birit．Sithols．mun．












 and then ralizins then by framed antists ur will．Pome


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 from the erystal through the fatio up the the aman：the


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 pare antivity．Jon thar indishatity at 小ath whth the fan
















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 lime of the antipe phanuphy of mind as treatul hy ond of


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 Phenomenthey of mind is the abeme of the promes hy
 grence as the proplpmition amblogical explamation of Hee ohjoctive worl！．It lugrins（10）with the consideration of in－

 propertion and at ributeo in their inntual relations，until（c）
 timate nemp phace or manifestationso of foree which are


 the fhemonmal worlit is a manifertathen．The thonght of a semes of differnow and distinetion－from all ahetrart foree in whinh all own retw distinetions have vaninhel in the
 manifotation ly man of siff－rpposition：and this radieal ideat that mantion the theneht of toree is the indea of an mi－ yepal that exins as a pationarizing pacess．Hery may he rewenized the thencht wemeert of the bersonal here or of mind．Henco all Jivtinetions among mberts in the outar whil are trasen miltimately to mind as their（＇reator，and


 semorn mind as sulijet：it considers the subjective fac－
 thenetical mind as menepurption，represumation ant
 the practial ardivity，of the will．I：Ohjoctive Mind in－ Whate the world of human history and the mquized insti－ tutionsof mam－（ 0 ）the family．（h）civil society，（e）the statn． ©．Aleshlut．Mint（voîs morquós）inelumes（ii）the phater of manifetation of the divine miml to susererceptin in the form of the lnamiful in at：（h）the ravelaton of the elivine

 mate 1rith in the fom of sedone cominating in theongy ur philusilly．

Willam＇T．Marmix．


 lon．It is shaped like a malathoh，with the hampla to the W．and the momth to the N．It is ：part of the spanish
 su－of the pernlation uhmithol to spang gave in Nas a
















ing the wot wam lenal storms are frequent．and typhons
 is extremely fertile．The surface is closely comped with
 The fanma is trepical and rich．A pare and halde－known
 hane the same aymarame for eathe that the tumsit has amone dogs．The inhatitats are nervitos，the alurigines，

 interior tribus．Indondian，ratmbling the lyak－and Bat－

 \(\therefore\) E．N．W．，on the interion lakes and in the valley of the （ifand－：Mohammetans，predatory，resmbling the inlabhit－ ants of the sula inlands．submiscive aloner tha comst hat in－ A－phlat intand．mumbring atmat 100000 ：Visagas，who arc onhmissive，（＇atholice，the learembants of native colonius from the Visaya finmots numbering 120，000；and the chi－ How，who are increasing rapidy in mumber，are scaticred along the conts and in the towns，ame are devod to arri－ culture and trade．The spaniards ane fow in momber， mostly at Kambanga，a fortress and the ent of the lamalle． This island was the finct of the Philippines seen by Ma－ grellim（1501）ame since that date the Smaish conquist has Fx＋11 madar way with varying suctess．It is hardly so far adrancel now as in the midtale of the seventemth century． The mont diflicult poples to deal with are the Mallays．

> Iark ll. Ilarmington.

Mind－cure：the cure of bmbily ailments through mental influmes whout use of medicines or other treatment． The intluence of mind on body is now recognized to a de－
 lation in ye pusille．The therapentic uses of Itrexoms （q．r．）An wiw that dwelling of the athention upen cortain illeas thats to hing ahmo the manal physical offects．This
 til combitions to sume degree．It is cmly an arope of this Genoma fact that strong helief in errain physeal effects， praliched and strongly sughend by another shond have
 tinual and arroms trmbles．It shond be distinctly umber－ stoxd，howerr，that repotable \(p\) hosicians winl have nothing to do with any mind－enre which is latied on anpals to Malulity of prifesses to go beyod the slimht moral influ－ Whes anvilary to mgular modical treatment．The various forms of mind－enre exphited umber the names of＂Chris－ tian mindre＂．＂pranal magnetim．＂＂rure ly will power，＂
 tioned，onthing shon of fratud：and hae case is made worse when it is romemberel that the proseors of such power are nenally either shemers，who mak mone by preying uph the credality of others，or monasiasts＂of tom little monlical information to know one disease ifom amother．


 try Xindedefl，han mose than a mational reputation as a rhamist and insemor．The son graduated at a private sthoul at the nge of fifteen，and at once whagen in busi－ mess．In 1 sise he herame commeten with the lurem of othongy，and since that time han hern magred in the study of the aboriminal architecture of the puchor region． In isag he publishay the firs dereription of the snake－ hanco of the Tusayan（Moki）impians that appared in a sciontifir pablication．In collabration with his brother Yintur the tow part in the prequation of a report on puchlo



 valion of the fanus Casa framle ruin in Arizona．He publimed the tiret more an atherimal remains in the val－ ley wh the lid Verde．Ariznita．In＂is perhape hes known


\section*{．I．II．Poweld．}

Minden：thwn：in the province of Westphalia，！rusia；




 A－whment of the（iothie spire The town wat fomerly





 Nets．（for lowaton if antunty．－r map of Xehratha，ref










 known of the eromp．It han suttered mach from the def redations of the sula pirater．

\section*{}




 pint，and has a hiah whom，privat．hamk．and two weth！






 of organio fustemo．I minetal may be the bulimet amb










 in the mindra！kinelom，and a minomb maty contat of ane dement of of a combinalion ons complex that mo frown syatem of cheminal monatmon will give atiofantory retre sentation of its comberition．Like any wher flamisal
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The atmor rator is thereform of an in obamme that for mala－of momerals





















 ：Co．laking the satme mat．







 －rnting … many hall of attration，and imisatme that







 smaller number．＇Thee fommalane amikur for－ulphar．mil－
















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\section*{}





with the material of the serombmineral : ly filling up of the











 tiblotic.

In amophome minemals thete is nu trace of rastallime



 anmophans manarals are the result of at matual change
 ramdition, but many of them ate the result of the alteration

 chandererivic of most orstablizable mintrals, and is of
 beine alwas the same for the same mineral. mo matter what the monifications of the erystal. Thus rule ete, whether
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 paralicl to the fates of the owthedrong. Clamaige takes plan parablel to certain phanos but there may le two ur more sets of abearar-phane in the samm eryatal, and in this
 than to another bat will abwas la asiest parallel to the sanne phanes. 'Thus wothorleses in the mombelinic system. has a very purfet elavarg jarallel to the hase ot the


 vind of elemate, ouperially the amorphoms minerals amb native mallable metals. while the chatrane of some mineralc, like mica amb whsum, is so purfect that they tam le easily split ints bery fine lamina, Oher minerals bave a
 'ratarto, while some, like argatite, show scareely any trates of rlvaviarn.

Fracture diflurs from elawage in mot beine garalled to

 and hackly (like broken copnoro decoming to the hature of ther risultinur surfine.

 mot matally vary much for the satio mineral, and is there-



 mont. I mimaral soatchat arily ley apatitn. and rasily







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or hate difforent fraces at their opposite ends. Tourmatime






 talley 1 lu aptimel uras. In urystals belomging to the
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 any two of the aresalluraphice axto. and ner ushally sym-
 ands in the same blane 'The anerle betweed the optical
 abute optic-axial angla is (alliol the arute bisertrior or sim
 is at right angle tu the mente. is the obtuse or comjofule bisactrix. The oplic-axial ansle may rary wibly for ditferent varidies of the smme mintral, but the position of the bisectrix is neally ennstint.

The emmering dombly refracted rays are polarized, but this phenomemon disalinats when the light pases in the direetion of an altioal asis, and in the case of easily clearable minctab: we can reatily determine whether they are uniavial ur hiaxial hexaminion thin lamine hetween two
 mataxial ervetals chave best parallel to the base, and hance manal to the optionl axes, while very reavable baxial erystals detave hest parallel to the base in one of the pinacoids, and would have meither of the optionl axes normal to the baminde sere Polabizates.
sections of hombly refracting erostals of proper dimensoms exhibit ondoral rings when examined by convergent fularized light, owing to the interforence of the rays. Eniaxial erstals show one set of rings, intersected by a dark Clos: biaxial ervials, ane or two systems of elliptical rings. crased hy a dark lamd. A sectomof a quartz erystal vertical to the oulical asis rxerts duble refraction in a foculin way, the rass foteressing nut in direct oscillations. but with varyine voluejty in cireular uscillations, protucing what is ablled rivenhor jolarazution.

Certain cryatis sometmes show double refraction, especially semarimutite. diamom, bormeite, umelcite, and alum. Thivis owing swmotines tu ineipien atteration: sometimes
 sometimus to interpoad layers of some louldy refracting minetal: amb montimos perthap lo a lamellar structure of the mineral itself. whirh prowluecs the same results as a sys-
 polarization to the phemomemon.
soma ergotala transmit lierlit of dilforent colors and in-




















 silky. athl laverlewe of earthy. (ator is alvays the same.
 foribes, the sulphides. errtain memallir oxidos. and salts: other-are white ar colorlese amb transparent. like icre, quartz.

 "nts. 'The whore of minurals vary gratly, and so domes their trambucemy, the native metals and minerals with me-
fallie luster being gencrally quite "arame, wem in ware thin tilms.

Thosphorestence is imbued in stme minerale, as diammad and calcinel harite, ly expmate talaylight ; in mota for

 and fee of minerah are additional mano of distmgeniante therm.














 the chemieal eromping of minembe combined with arstallography. Whe first arramen the demonts into thew in rics.



 Arsenic yronp, asemic, antimony, hinmulh: sulphat aroup.






 general shlulivisims are than an fallews: I. native daments: II. compounds the more newative elenent an elemme "f Series 11. (1) Binary-sulphines, tellurides of metah if the

 group: (3) lernary-sulpharsantes, sulphimimonites, sul-
 ment belonging to suris Bll., (irnup l.: chlomioles. ct": WV.

 of Series III. (iromp III. Gxyen empumals: (1) Binary-
 of Series 11 ., the neflifie of stres 111 . (1) silieate : (2) eolunbates, etc: ( (3) phosphatw, de.: (1) burates: (in) tums-
 V1. 11 ydrowarthon componds. The silicates maty arw as an example of the further arrangement into groups and species. First, they are divided interahydrens and hydronn
 subsilicates. In tho abhydroms ilicates the wypen ration for bases and silisa is for the bisilinato \(1: ?\) : hnicilieates,
 intogroup: amphibhe stomp, crystallaztion orthorbmbie
 onal; pollucite aremp, istometre. The amplitule eroup has sub-groups: furoren whotgrenp, angle of pixim, mi-xa;






 serve for further illantration. 'There are there divi-ano: 1 b






 Mercasite group, wh thrhombic.

Mincral Dil: Sat Patralacm.
Mineral Point: city: lowat wion Wis (fue luation uf







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(t) sulphuted whters a the namo implies comain -al-







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 lomate of lime


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fiee from the ohooxigus element and are of the proper come
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\hline Bicarimmate of limm． & \(1 \therefore 445 \%\) & 131．734 & －！may & \(1: 0616.1\) & 93.1111 &  & 111 －8．51 & \(143 \times 364\) & 10196\％ & 1713\％ & 28.101 & 59454 & 912332 & 17s．4nd \\
\hline Biabrhonate uf strontia & trace． & tracrs． & trave & 154＊＊ & \(10^{11}\) & trawe． & trace & trace． & trace． &  & 0 が， & （1）Nitio & \(0 \cdot 00\) & \(0 \cdot 1 \mathrm{ct}\) \\
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\hline Bicarbonatte of irus． & \(1 \geqslant 13\) & 1 17 & 1－903 & 5011 & 1814 & 1－12ら & \(\because\)－183 & 113411 & O． 73 & 1140 & 0 ¢if & 1．5N1 & 1409 & \(2 \cdot 96\) \\
\hline Rulphatr of yumassa & 5 5190 & 1 Hitm & \(0.55 \%\) &  & trate & traters & 215\％ & 11＊－4 & 2 206 & 0－31\％ & （1）258 & 10．500 & \(0 \cdot 762\) & trace \\
\hline Phosphate wif sima & trace & track． & traces & \(1)\) antio & 13－116 & 11－inlt & Whata & 1100 & 0 0183 & trase & \((1) 16\) & 19．051 & 0.011 & 0 0，43 \\
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\hline Silica & \(12{ }^{2} 3\) & \(\because 2 \mathrm{con}\) & 2．3i1 & \(3 \cdot 151\) & 3.144 & 1－950 & \(3 \cdot 913\) & 10.40 & 14 s & （） 6 tilis & \(0 \cdot 694\) & \(0 \% 61\) & 0．735 & \(1 \cdot 0.6\) \\
\hline Ormanic matte & tract & tra＊＊ & \(t\) race． & trace． & tract． & trace． & trace． & track． & tricer． & cract & trace． & trace． & trace． & trace． \\
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\hline & \(52^{\circ} \mathrm{F}\) ． & \(5: 5\) & \(50^{\circ} \mathrm{F}\) & & & & \(210^{\circ} \mathrm{F}\) ． & \(5: 0\) & & & & & & \(49^{\circ} \mathrm{F}\) \\
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\end{tabular}

Amung waters that can not properly be classml umber any of the ahose hatals may be mentimed Buthalo hithia water and strontia water．

In 1sto there were \(2 x: 3\) commorial mineral springs in the U．S．The total product was \(21,5.6 .604\) gal．，at a valuation of \(4,905.580\). Ira Remsen．

\section*{Mineral Wax ：Soe Paraffin．}

Mineral Wool，or Silicate Cotton：threat－like filaments whirl have the alparame of worl ur cotton when masson together：produced hy the ation of stam or atr under presure unon vitroot or scoriaceos substances when in the molten state．As an article of commerifal value the baterial first came into nse in 1sil，it havine leen por－ ducet in that sar at Whatheck，Gormany．The produc－ tion of it in the C．S．heram ahont fome years later，and sub－ sequently in Englamd．In the varimin processes of smeting wes of metals the compresed air necessary to accelemat combustion sometimes eseapes from the furnaces throngh the tapming－brle or tugeres in such a way as to sepratato tho cindor into shet－like particles，which in tearing themsthes from the flad stream draw wat throals of varions lengh and finemss．Most furnacenen are familiar with suble froaks of the blast，sn，that the material in this sense has bot little nowelty，and it is to le woticed that as a mesult of this wemrence the only pateut which seeks to protect the artiche at all dese not ilam the pronact as enth．but the buthom of manfatoure．John Pherer，of Nomon，near
 prationd at the present time．

The Nag of hant－furnacos is the wheapest ame most ahmo Hant－uhbiate which ean he milizal for the manatacture wh the atiold．This，howerer，is obly a mineibencer，and
 of tham emtain the large a prowtion of silia to make filw and plable fibro，whine whers are on lavie，owing th the high furecutare of lime that they will mot draw ont



 wom made from shag is that it gemeally cuntains sulphides



 beomine wed from latazor fom watmal matare，and thu whiner thus bromeht into sulution to attack the imon．



 fot in upation to melt down such rock－mixtures as are
dohmitic limestone a cimber is ohtained which runs fluid and is suserpible of conversinn almost entirely into filers of astahl mature．In treating slag： 1 l ．of shot are made to every pumd of fiber．while in the case of cinder prepared from mincrals the proportion is about \(2 \frac{2}{2} 1 \mathrm{l}\) ，of fiber to 1 lb ， of shot．These different prolucts are mamed＂slag－wool＂ and＂rock－won，＂the chief distinction between them being the resennee of sulphites in the furmer，while the latter is free frow them．As a general thing，the color of mineral wond is white．The fibers of mineral wonl act as a medium to present the cireulation of the air：which leing accom－ phished，the passage of heat is retarmad．By reason of its In mesity the material also forms a most effective barrier to the transmisoinn of smmal．The indestractible character of the fiters makes mineral wool avalable for all purposes of insulatinu．lusects or remuin find in it nothing wholesome th eat，while its glasey nature forbids their making homes in it．

Miner＇s Inch：a unit for measuring water frequently ＂mploved in mining regins．Jt may he ronghly definced to the the quatity of water which tlows from a rertical stand－ and oritiec an iuch sulute when the head on the topedge of the oritice is 6 inches．The mean discharge from sucflan orifie is 1 f culie fiet mer minute．The actual value of the miners melo varies，howerer，in differat localities．In Cali－ fornia it ranges fom \(1 \cdot 90\) tor \(1 \cdot 63\) cuhin feet \({ }^{\text {er }}\) minute，ac－ cording to the arlitrary Aldinitims admped．For example， at Smartsvilla an oritice 4 inches deep and 250 inches long． with a beat of a inches abwe the top enge，is said to fur－ mish 1.006 minors inches．In Montana a vertieal rectangle an inch dow is remerally n＊el．with a heal of 4 mehes，and the numbur of miner＇s inmher is sain to be the satue as the number of linear inches in the rectangle．An orifice through which ：given manher of miner’s inches of water is fimishad is callaf a momble．The important feature to be ohsorem is that the ham shmid he kept nearly constant wor the moduld，ame in order to insure this many anto－ matic apliance haw hern dryind．For the sake of mi－ formity it is mach to be laceired that water should he sold by a constant unit．such ats per coblice foot pre hour，instead of hy the miners inch．

Mangheld Mmbrmas．
Minersille：borough ：sclurlkill（＂．．Pa．（for location of（whnty，mat of Pomsimania，ref．5－11）：on the Shaykill river，and the lhata amd hat．，the leorles．and the Shbyl，and Lehigh Yal．railway：\＆miles IV．of lonts－

 lichte，phat lihary and two wally mowapors．Jop．


Mincrya＝Lat＜O．Lat，Menero appar．for＊Me－


mythology, the gexdess of reaman, and so of all imbation, of

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 amb the later idhotitioution of Minera with the -rhate


 slight remaine of onte of whifh, in the Finum of Nempa, -till survive. Bushe the artiolic repremations of Ninoma. which did mot differ from thone of Aherna, thate was an aneient and very sumen imate of the poblens walled the Palla-
 destruction of the latter eity. and wat preareal with great eare in the temple of Vi-ta. Se Preller, Rom. . Dythotogie (i., p. ext if. ("f. index in val. ii.). (i, L. Iftambthons.
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is pilen] up lehind on this timberinm. and the other miners follow stamdine unt that or on treatles, so that the protile of


When the win matter jtall das mot fombhemern refuse, it is monal, in the cobe uf minerals af comsiderablas



 may he admend with alvantare and particnlarly in cablbento, where it is always an objee to gre ont the material in

 mothonl is applied. This, which is momon bew wen in
 tamable, mosiats in attaking a lomer. staternt line of fame Wht all the miners ahreat. They prop hehind theth, athe



 be procuret mbeguaty to molenish the vatomey, then what

 down if the rolling-ways an bu kept open hy hathing into ther rouf.

The expluitation of thirk veins is ulferted by difurent
 they may he attated from lelow mpard. taking out homzuntal these whioh are sumessively filled: or, asain, where (owing is allowable, they may bu taken from abowe down-
 fillime. Finally the methon hy pillars amp watheries is applirable aywhere. That tille whimarily rofers to an waboitatinn in which the pillarenf the minn ral are used for support
 This rodinguishes one-thimd to one-hati the material in the earth, and is the womst fussible ahmost, thomsh in thick
 It is combined oftem, however, with a subsequent robbing of the pillars, whereby it becomes more economical amb rithanal. The rohning involves caving, of "omber, and when the "repp of the caving can be commanded nicely the neethom is ar axhanstive as any.

Nll the fureromine exept underhand stoping, applies to combmininge but this lat is at the sime time a larger and vet a more delonate kiml of mininer tham metallie. Coalmining dilfers from other mining principally hecause the fronts onerht to be larsor, becamse there is comparationg Ittle wofae in mbinary coal-beds, and because the peneration and ignition of furedamp in fiery mines exact peenliar fierhtime jartionlar ventilation, amid besifles a mispusition of works whioh almits of hamiling large phatuties ecommimally. This ennsiberation leals to dispusiner the main phan in boumtarios, with walls of coal left botwern, and also to the well-known style of pillatromd-stall exploitat tion. In this the pillars are long atrips left botwern the stalls, which ame hombines run into the coal, directerl so as to take an easy graln and wnt of whieh the coal is entirely won. 'The pillirs are intembert to lee subaturnally erat


 material. amd mahine mat, with rapidity and with salfoty and -ondent th the minere.

With sufur matrerials the actual work of extraction liey the


 is resurtal lo. sia lisurist.

Intrriar Tramsportadion.-Frens the fronts duwn in the mandwass the mathers are semb in harrows, sleders, shatios,








 Patmidiar.


are two large sheaves or pullers to bend the cathes from the shatt to the wimbimedrums or rets. The cables are hemp, alose iron or stael wire. and wither somm or that ; they are tominated with an end of chain, wheh is hooked to the buckits, skips, ar adres. The cages, now so prevalently ural, are simple elevators. Which carry one or more ears: they are erniterd by wertion strigs of timber tixed to the sibes of the hoisting-way for that parpore, and these also
 tached t" all cares, farticularly if miners are hoisted in throm. Safots-atches are of warme ghtorns: the best are prohaty those with tombed eremtrio wheres. which, when the eable buaks, chacrust themstlves intuluth lateral thanks
 "ablas comisal drums and rets far that. The operation of housting is fur mamy rataons dellatate and the engines ought

 pussible.

I'amping- - n tha ('ornish type the pamps of a deep mine are compered of a surics oflifts, cach more than 100 feet high. All the phongs are lomeramps with plungers, except the lowest, whin is a lifthump. more convenient for fullowing the sinkine of the whatt or loing moved abont. On. main roed of woml and iron stretches from top to bottom of the shaft, and to this are fixal hy spars or shoulders the routs of the fote-pmmps. The wright of the main rod is almost abars greater than that of the colamm to lift; therefore the work of the enpine is limited to lifting that rod, which when released sinks and moves the phangers. In the L. S. praction farme the nso of direct anting pumps.

I'mentation is cibher natmat or attiticial. Many circumstances may canse a natmal draught lutwem two mitices, such as difference of levil. hitforence of section, variety of exposure and prevaling wimls. Artiliutal ventilation is proaloced by phemmatic madinnes, the cheapest of whieh is the ohl Hartz hower; by tans, such as Guibal's and Fabry's: by furnaces, a common and chap mothon. Lut dangerons in fiery mines: and hy jets of steam. The use of compressed ait in the drills of mines assists ventilation, but not so mach as might be imagined. On the whole, it is fomm preferable to ventiato hy dawing out the air, rather than by forcing it in: amd this comrse is particularlyadrantagenus in coal mines. hecanse by rarefying the air. instead of condensing it, the fire-thamp is more freely liberated to be wafted away. As for the distribution of the air, a general principle is to carry the curront low down at first, hirecting it afterward throbird the works mprard, and split it into mumerous untainted streams, until it reaches the upast. The directing and modifying of the corrents is effeeded by doors and airshates in the mino-ways. Host miners who perish by esphosion in coal mines iprobims not of the firedamp, but of the choke-famy, or carbonir acid, after the eatastrophe, particnlarly if the doors and ventating-flues are disabled; therefore in these dangerous mines the means and potentiality of ventilation are vitally important.

Willing at coal mines consists only in breaking, pieking, sereening, and washing the cosl. Thir breakers are toothed cylinders; the serous aro revolving serems, with differentsized apertures for sortiner the lompe as they pass through; the washing is done in hare jigs of eistaros. where the coal, like motallio ore in smaller alymatus of the same kind, is subjectad looth to a current of water and to a movement of vertienal uscillation of the sume impelled hy pistons. Masses of matallie ore when first extracted and dhmped are first hoken by hammors or slomge-work in a pile-ifiver frame; then treatud by jaw-erushers amd revinder rolls, sometimes tontherl then imanmitted to the stamps, whicis are ut rariいus pattorns, the mosi pewerfal hoiner regular steam-pestles workine dirext from the stemmerylindur. The metatlie mud

 in hulace and honer tabling lablyrinthe. It is alyantageous,
 in the fryaration of comb, washing thols to come more and IIN"M in vosta.

Dining Surprying.-Nu anginor onemt to be content withont incomato amd mhequate maps of his buderground works. The main ways aro survered with a transit, the narrower unes and tho fronts of work with a compass and
 frints. 'lhe fortical and horizontal angles and linear
 it in asy therefrom to make maps, seations, amd elevations,
















































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 death.





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 （hamall of the mavisator form that if the ninth patallel．

 latter．It is a coral formation．Mevernt－hapest；ialumt 5

 square mila．＂ir that of a continnoms vilage＇The inhat－


































\(\therefore\) Bl Jackeos．

\section*{ \\  \\ Minium：seland． \\ Miniver：© Emank．}

Mink［of umatain otymungl：a mame siven to certain


 smalier anmal，with a man tiner fon than the American mink．Aill the mink of Somth Amota，especially north－


Minks．
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 in ponltry－samk，often takine mo thar alman niar them．
labistll hy F．A．I．cocis．





 rics，and 4 wonkly and 8 monthly primilats．Pup．（1s80）
























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\section*{Minnowat｜tatanl from Wors}






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 luat．From this haight the worm－ al surfare shn＂ Erremally 10 all dipectmis thwat the tummbario． but entiner mi－

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 Nans．of sery undual arat are each quite mifom in de divity．The incerage meation of the whene state is 1,2 an

 formed by the saller of the Missisump in the s．D．．．the val－ ley of the hed River of the Nowth．and，Butermediate and contimans with them the hroal valley of the Mimesenta river，makine a bir \(V\) with its saliment fhrost well into the whthernart of the state．The highest juint in this tromar is 920 fiet．

The Jtasan platem contains the soures of four river
 Jiver of the North，weting the waters flowime from the



 streams emptring inho the liainy river onte the chain of


 miles，and has the ervatest ange of derlivity the lownot land in the State beng fomm near Fond du lace，where the
 derstom to embraw a momer＂f strmans llowing s．F．di－
 simp river sprine from the hourt of the ？tasan phatan．in the lake mamel ley shandraft＂Itaca．＂＇They flow firt wortherly，thon aixe entward thrman a grat anain of lakes，and doweribo more than a half cirele hefire striking

 Disnissippi furms 1 hue eastorn inmulary of the state，and
 flow of the Misumaphi like that of mont of the rivere of the State，is ont the Arill till its dowent of the Palle of Sl．An－
 of ambernas tribularise tha Minment：is les far the mon

















sona trongl，and lake Paing，in the Misisiphivalley are morn entamenats of river bualo．The remainder arie the rond lako．lymatome the mothorn bumbary and in the


 ybion of the Eniversity of Minment，the following state－






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 Herian，wandine frem the st．Beter samlane upward to the Ifutan riwe femation．and in the interior of the


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 in tha wown half and thine out gradually，to disindear in the trimun N．of lake sumprom in the anciont rowh valley of the st．Cruix and the Miswisigei．The principat roxl ixpmanes arm fomb in these demmed areas．In the


 Is a 4 maral tact，the grat drift sheet wensists of that con－ fused mixture＂f sand．grasel，and chay known as till，and thenome to the the immediate prodnct of glacial action．
 of stratified samb and arawel，cridently deprested in water in a fommiation of till．In some cases these deposits form narrow terrates．in uthers they widen out into phans．Ex－
 antaide of river whese and they constitute a large fortion of the suriacollift in the Leat lifle，the Wesabi Ramge，and in the（＇otran dos lrairios．＇lhese drift materiak are the onbonil of the state．and mingle with other elements to form athe the surface sult．There is very little stony gromm．

 coblor and didnco of this contine are due to the meshanm If immontial prairie－tires．or，in the forest regions，to the a－chmalatime of decaty weretation．
＇The atmitial ditys of the drift are wronght into bricks of many degen of cohn and hardurs．Exement puttery is madi from the finur chays，and kablin and other materials fir aronder an fomal on the Cretacenas area．
（＇han，sharp samd for buibline purpose is semerally abun－


 as fullows：（1）（＇rysalline as in the eramitas at st．Cloud；

 mitio limesonc，as quariod at Rad Wing and Kasma；（5）


＇Tha Arehatan fomathans of the State edatan iron mines

 ＇lamer．The only wher important mining wnter in this





 sing ribur bistuly 145 miles．The are is aft homatite．wery fre from impuritas．Lxtusian minine is carron on by mants of stram sheros．whim lift the ore dimetly from the 1，ad to the malway cars．＇that that shapmons if irn ore


Problurtions．－The great gengraphin extumt of the State．
 a varimand atmondiner thata．＇The vallog of the Minmetat



 miles leing prairio．
 consists chictly of mak，elm，halo，ame maph．In the morth half of the state are fand white and yonden pine white cedar，sprnew，thatack，and hireh．The wherer elimate is tow rigorous for the prad and the charry．hat the hardion


 where are the ushal garde th wedathengen in grater per－ fection than in the biank mil of this state．


 quail still survive tha war of the pu－hunter．There are few waters that are not well stokn what valuable suecies of fish．The state has an relimont rame law，and a shate

The following smmary from the equsar refort of leso and 1 sto shows the extent of farm－prations in the state：
\begin{tabular}{|c|c|c|c|}
\hline Farme，fic． & 1880. & 1890． & Per ant． \\
\hline Total number of farms． & 52，34t & 11th，xis & －265 \\
\hline Total arroage of farms & 13，403， 1215 & 1－，btas， 615 & ＋39 \\
\hline Value of farms，including buildings and fences． & E103．020．0．4 & 23010，169， 100 & －55 \\
\hline
\end{tabular}

The following tahle shows the arrate villd，and value of the prineipal ern in the ealembar yar 1 and：
\begin{tabular}{|c|c|c|c|}
\hline cropes． & A frave． & Yieh． & Salue． \\
\hline Com & －－ & 2． 10.3 aro thash． & S－，\％n，ul \\
\hline Whea &  & 311， 546.68 & 15．6．0．24 \\
\hline Oats & 1，605．965 & 11，58．14\％ & 10，whinis \\
\hline Rye &  & 1035．3－3\％ 0 & 4010， \\
\hline Buckwhor & 4 3.414 & －3mat &  \\
\hline Potatues． & \(114.16{ }^{\circ}\) & T，＊23， & 3． 4 tit．110） \\
\hline Hay & 1.923 .85 & 2imbins tuns & 1235＊，15\％ \\
\hline Totals & 8．110．3：\％ & & 8－5，Jtas．403 \\
\hline
\end{tabular}

On Jan．1，1sat，the farm ammads comprised ficior





Climate．－The climate of the mid－tomprrate pane is in Minnesota modified and ameliorated by local comditions．It is rave that an abundant rainfall in the arewing sannin is not followed by dry weather faworable to harewins．The winters are dry with monlerate show fall．The hish lat it ander gives a long dity in the £rowing stacon．Fine weithor is the
 ite resort for invalids neming to live out of dones．Malarial diseases are unknown．

The averare temprature for the year of the contral part of the State is 4.0 ，for the summer atr，atml tor the win－ ter \(16 \cdot 1^{3}\) ．The averare precipitation for the your i－2－i．
 winter temperature in 1 sia was－3 3 ，\(F\) ．
 N．，lan．（8） \(141^{\circ}\) ．）by William（hemeg，whatary ohserver．

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Temperature． \\

\end{tabular} & all to tr \\
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\hline 6：ublyw & \(11^{\prime}\) & 1：3，4：40 & 14．30： & Wilmar & \％ \\
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\section*{Tutats}













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\text { W ॥.1.1 } \because W \text { W. FOUMELA. }
\]





 untit taitumb.









lewsiad hat I. s. Imand.






















 2.:315.

\section*{Minor: Su" IyMTM.}




























\section*{}





\section*{Minority hammentation : Su lammorspmon.}














 Thik. J. li.s.simbiett.










 and was the coliten of that impartant andiation for the ten




















 lighthus with lig-did is sithated on the out rock. Sect Lh:athense.








 rated, and tar, timber, and petand are producet. Pop. (18*T) \(1.6 \times 1\) (illi)





 ind lating abont 20,000 otw



















catching his sworl，and simener the wor of Rolami．By the

 and in the thirty－nimh suar of lelizalnethatatute wie pared








 Lay of the Lave Mantol is a enand example．






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 are listributa］throwhent all parts of the carth and num－










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 and value．and topase he tald cir combt．The ben athomi－ tien are senerally agred in atematins the insuntion of



 no mality in the a－e of moner with the killad fow．The nee of coins rapilly spata，aiding matherially in the ax－
 eonrse betwen the ditherent comation of lhe wifh．
In deseribile the promese of mintine thon in use in the

 a director．whas hatigartoman in the Trmany bepart

 located at Philatupha，san francion．（aron＇ity，and




（1）The pripuretory molling unall！with protective or








 ness fur coinate：（fi）the varoms maniphations by which such stamard ingots ate emperted into coin．



































 etat jum ens ert it intorman．


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 duetity of the metal haring tha relline in tation．（at The

 the－trips＂hathen＂or Wank－of the－ize and－hat＂of






 tionsaratrat by law．






























 lıus：
－．011．





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 anjuetor．with whith the weteht of all the blanks is textel．



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 Bofore heiner milled and stamped．＇The hamke for the fol－

 tho half hollar，quartorbllar，and bume are not on aljubul，

 their reanetive lagal watats．The law allows on all cenins at








 batke nt but peras the ment．
are ket starate until thery reh the wefh－rom as coin， When they are uniten in prentr fromertine and made up


 and all abow or bedw the legal theran rejected．

The aljunted bank are mon realy for the milline aper－ atinh，which is done lay a mathe contaming a cimatar

 of the inme thek carri－the lank thangh the intermediate

 up，the alge of the phathot at it revilses．One revolution carrios the phes throph the mill and romphes the oper－


 they are ammated to at cherr－red hata and when removed frem the fumaers are plated in a manker，diphend for a few moments ino a dihita solution of sulphric acid．and therme inter pure wather in order to rinse off the acin．This leabo the hanks thembly cleaned amb after leting dried
 with sathen，they are raty for the stampine ofration．

This lat and mint hupritant an ration is performed by the cumine－pros：Asenh bank dacemb to the botton of the thine al pair of sted fingere ruize it amb carry it for－
 and samping lath the obwere and respre inseriptions si－ multanchaly．the sted lineros return fur thother patachet，

 from the prome and taken to the weigh－rome where they
 The sund of the cuninf－preme in ertimated at from is to
 the coins ranges，according to their demmination，from 4．5 to 240 thins．

Tuhtrent－The law alluss a lolepance of deviation from
 I票而th in the silser．lint in practice the amayer dues not atan himself of even mo－half the folerance，as the sim is to have the comare as near the exact standard as pessible， which is not the practice followed ho some foreign mints． The margin of finemso if gold coin in the bitish mint is phated at ？part in 1.000 ，though that a small part of this matrin is actually used．

The following statmont exhihits the stamdand weirht
 erame or bleviation allowed on single pieten：

＊These coins bave been abulishod by act of Congress．

 atation of the enins，whichare math as elone to the sand－


 baw prombe that the daviation from the tandard waight




 ihn minte is that call iletivery if ain mate by the cemer
 mo alvantare bume takn of the limit or tohrance allowed in wetching a large number of piown twather．

From carh delivery of coin by the eminer to the sumerin－
tendent a certain mumber of pian are indiomiminaty
 trial or lant of the coinage, whioh in minle in Fohenary of





















 amomen of siber delisered then he the *herintendent, The atual watare is. on the averam. mun whin the limit fixed by liw.



 centr of tha valan of the hallion contaisert.

Mint lielues.-- tiohl is rahume in the rembage at the mat.
 fine metal to the Ahlitr. Fir sitver the rahation in the



 to the thitar.


 ane tixal from time ta time be tha diveror of the mint with the apprasal of the seremary of the Treanary. The
 retinins. copher alloy har eharese. In the charge for depmit













 atil! value.
















 monessare plade at the duterent enimase mint-and at the
 their ballion. in cain ir hare as own an the value therenf







 - 1 -








 the "tria" follow- Alivetly. and after the trin the former frat of the minum is requatel.



















 and Xinuit sailed from linthenture. SWentor, in 16:3i, with

 the conthene of Minqua: Kill with the sonh river. har the presen city of Wihmingon, and allad the combry Now
 on the Delaware, and the collony remanel in the hathe of
 Christiana in 1611.










 ferionl and foreding the Idineme. In the whembere


 (1). i.)























 Mintisur.
 Fr











 He repetad a military matathon at liores and wan a han-

 his life water wild that in latho hather hath him shat up








 the Jura Hombatis. Prom this place he elnat with the

















 untit fiot the catere of a diphmation. She faled to chatan any forthe diphnatio apmimment herminad his at-






 From thi- momat and of fors dath he was the lanline















 If the Somplay and panduat of the dandin ('lut, was









 matain ha dimumhie l'russome.
lioninet by f. M. Comm.

\section*{}










'The trately of the liturey lectane the wern of the mod-

 stary home to the miltitule. Viry sum, as intrathetury
 on the hays pereminit (ionl Friday. Thas arese, within the woners and in intimat ondmen ond with the liturer
 the mertary of memption.


 hathon anthum of lione and of the fermanic tribus;






 incothonts of 'liritts life. The play of The fudyment was
 lime was dramatized as the play of The Irophets, ami hecame a titine pronew. When this play of The lempets
 with the cration, the reation eych was complete.

 thay dearten hat slimhly from the litury. and were factisally the same in all amotries of Raman catholic faith. Artingenexploment wan nure rap in in the lation nations. In (hematur the chrimman fays dewhowl hate, and ware
 they harim earls. hit hater. throng fucin with the low annody inherited from the Ramans gave ge to grave san-
 hy Balam in the play of The I'mphete of ('hrist.

 daire arom tomaline the play of woral hays into a contimans play : bat such repmentation withdrew the plass

 termediand limed date from the tenth to the fiumenth centurv. fourdhe with the fusion of limerial plays into a
 tha wernarization of the misures. Shaly the verateralar sulumated the Latin: tirst fir the parte of the commen




 the welle play therther from the simple hiblical diaturene of
 mane whertional|c.


 man her hathatinns, of whid many forms ame still ex-




Fater mominer. Whan tho play erew in importane a















 mynury itanamal hatory hasine. In laty it herame the

 dramat anatime whely fron the liturem form and and

 pased mo the care of the Pos. a sumen of literary wand

 the preperty of the (omitripio de lat l'a-winh, whith wath

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 fer.
 and grat! inhowed by the resal butry and the forpar





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The (reft-aniht '?

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 known as the (comatry, but porably the propery of anme







 (u) forty-efinht play.








 fhatform was of the vorion when hath hasen and anth




 mentary thatrap.r.















 Carman hi-noriat
















 latus.
















































\begin{tabular}{|c|c|}
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 （Pari×．1×：ート．





Charle，baymises．
Miracles［viâ o．Fre．from Lat，mive culum，wombern］ whrk，miralle，nut，dimint of mi ras，wombrfal．（f．mi－


 neetion with the racelation of his will and the extaldind－ ment of Chrivianity．＂Their nature ：ame ratations to（＇hor－



1．Dr foifim，－I mirame may，in mineral．bu said to be an umbual event in phevial hature wrousht hy diment antion of find working for a monal what．Jore acemately．

 narily work－：\(i_{1}\) is the production，be the exerciae of
 have taken flace．＂Ithis definitinn asomes the reality of tha＂ diatinctionl betworn nature and the supermatural， \(1 t\) is basel in the theistia conerpten af the worl．While it
 of his pow and atherney as all tranferreal to the fores


 it．It dens not mowe on as an inhendent and inflexila．



 livine commmatation with it．．H1．＂phathe all thanse by














of nature Hume and athers have under this view enusht










 intu bex．mu law of hature is tiolatent．The mew rasult is





 － the law uf eravitation ammallai．

The Ithe of Mement－This can be rishtly seen only

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 why with which the seripture amolite them．Thay are



 ure in his ctative windom and power as to require the halp
 rall the weat puth that thromeh the ageregate natmal
 man．amb．further，hat there is such a thing as sen which has divinrbel the true life．order．and hatimess of hmma－ ity and cratad a need of Genfs coming futh for relief and hilg．that were the trie paition and import of mirach－ lons adion．It is part of the sumphatmal atministration in a redemptive comomy and in combetimer the world ond to it： 1 mu desqu．It ceiters in thrist．marking and mani－ forting his work．All the miracles of the（hat testament anol in this ratitin，latonging to the preparatory media－ turial lintory which oprom the way for the advent of the Maialh．Fhome uf Christ limeelf were the apmporiate manifotations of his supuratural prom．Thase of the atuet los weve from the same souree．Special perions in this unfohine redumpton were part ienlarly marked with them． ln the Xhesiar jeriod，when the wherity and suremacy of J小osah nowled asertion amb hlishlays and again in the das－＂f Elijah and Elisha，when the buth of monotheism raguind vimpiation arainet the concrachment of idolatry， they alpar in shiking prominence．Around the person and minitry of Jans Christ，the etemal Wion mate flesh as tha saviour of men．the full preance aml ation of mi－ racolnts ］wwar rabinated and acemplinhed its work． When the full provisins of redemption ware wrought out and the wew hingmon of srace was certified he miraculous activitio，the miande ：a sucial extrandinary event chasel and liodpeared in the reularly constitutad super－ mataral ad tom of established grace flarigh the Word of the

 supreme livine parpose with rophet tommaty．It can
 Itolvonar．
a．Their（whitity－The sume hure of cedibility












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 the inturests of his lif.. It in fanol under his dominion




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5. The Prow of Miraches-If proved at athe they must be

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 or the cowning mirallo of the reverowion amb the lisme

























































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 |l 'Th "






1. li. II Mi:-11.










































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 current of hatad air.
 Branswibk, diacharquer it: wat re hy a hopt whary into


 are taken here in wrat quathitio.

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 18.9.4. Niramon, who had returual to the aphata on the






 1860, Miratum :
 thereafter the Juari-t-gatmed aromme. Wirannen was de-
 linally router by Grtesa at the bathle of Cohpalapam bas.
 soon surremberad. reathed the chat after orbeth harrow





 to Haximilan, who gave him the rank of matul-mar-hal






Miramda, or timman Bhanoo: atate of Vamomla:



 tural rasions of the rigutlia. "The remainame tim in the










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 anmomadeal with the Virain Mars

































 (1) To coatod in adramed lomizatally ahome the laye of
 ste as to melnte air and tormane impuritice. Whan in

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 comition, after whith it is cometully lifter, the amalerm


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 "S. With slight moditications. hiner still in u*. Thur mat







 of water: and hin in aid hamper with ary.


 fow homre: (a) pesibility of ropaime lamated parts: and







 (1) 141月1.


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 and herly place the most imputant ..attan-market of India, with an cxtmive industry in withor, Wonlwhe, and silks: From the mor it !onks sery magnitiont whth it flights of marble stop haling from the tomple down th the waters

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 ('inmic.




 towns in Nuthern hadiana, the tire dime on the St. Soseph


 aml is nutei is al manfacturing point, copecinlly for the proluctom of windmills, wamas. flaws. and ather farm
 and felt beots, bursereblars, chureh organs, churely altars



Ehitor or " Fiterprise."

\section*{Mishna: Sce Tanurb.}

Misiones, mix-i-oncos: a toritory formine the extreme
 N. W. and S. E. hy bazil. s. W. ley the provine of Comp antes, and \(x\). W. By Paramay. The area actumlly hed hy
 the Argatine fovemment chams an patarly exansion of the same luqum, compringe alunt 15,500 sq. miles, now hata ly Rrazil (state of simtat ('atharina), mad known as
 the subine of arbitration he the Provent of the U.S.

 varicul, hut withut high montains: there are large tracts of forest and oblow of open lamis adipted for paturage. Gathloraising, the sathering of mate or J'aravay tet, and
 ind luled in tha resing formoly called linari. From 1 bita
 soms. sald to have containal a p"plalation of 130.000 in Tiai. Sfor the expmion of the missionarits they fell to deaty ; in 1sti the village were ravaged and burned by
 lame of the beanit haldines still exiet. half coreted with



\section*{}

Misrepresentation: in law, an burnth, by statement of combla, which induces har fomation of a contract. Framblant misrepremtation has ing inan doalt with un-


 is the urneral perlicy of bistiah eommon law to exclude it from athecther at contrat with which it is combeded. manes the partion have matu it at term theref. Suectal
 aptions lo this rulh. Any material mpmomation, however imenent, rember them simblat.

In the sale of chattels, howeres. a mistepmentation
 1 fate in cratar to aboil it at law-that is. the re must he a
 If the contrat as it was remombed and as was. For























































 Mas Ixいたいが















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 Chinis．




































































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 providier the Therk-with the soripheres and Luther thatish
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 Elint. followed he Mathew mid the Bainems. The chater








 start a semplal wark. 'That man was (aney a haptist wowmakur and minater. who heman bis work liy the pablanation of an Inquiry info the ohligntions of christions to use Merns for the (entersion of the Houthens. In 1ata came
 in Nombert of that yar Carry lambat cal antat.
 to have berun with the work of ciary. The influence of his prathinerand sample was folt all over bughand, sootland, and Amerisa, and extemded to the continent of Eurep.


 of the glow.
The firat fid 10 altrad athention was the intame of the







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 Ameri":



 mathy lame








 Latradnir, Alanka.







 titue. Chima. Persial, aman.


 Ahis ribution of seripham all wer the worh.



 foally Congrexationall: lmbat. Itawaitan islamds.


 Imbia, Irical Congo. Chima dapan.


 hmdia. Chinst.







 (Gonth and Wiot). lonsmial.

 Chima.
 andertew work in an lambs.
Lsen. Detahished ( 'hurela of sealand (Jombyterim): India, A frioa (lisis). ("hintil.


1835. Swalish hishanary sucinties (fone in mumber): Afria; (Sonthe. India, Jussia, Alaska.
 Greces, Chima, diamb, Maiti.
 (II)



 18:3. Predyterian Church (U. S.. at fint comected with
 londia, Sian. 'hima, dipan, Simth America, Mexico, (in:amala, kora.

 Traine physiomes for uther barats, and employs missomaries in dapmand symat

 minion in the Sutan, whieh was beknen alp: new manates mon for other losirk.

1812. Rofomed Prebyterian (lharh (soothom): Syria.
 ambler the daw:
 gramar.


 Wiot lmics.
 dal, Itana, lulia.



1845．Methodist Fpiscopmi Chureh Suth（r）．S．）：China，




 （ \(1 \begin{aligned} & \mathrm{B} \\ & \mathrm{a}\end{aligned}\) ）．


18ti．Preshyterian Churh of Eugland：（hina，Imliat．


 （＇．S．）：＇lumer．lumia，lapmi．（lhina．



 Australia，Ni．w Zandith．
1849．Jemonites llohamd：Eial Indios．



18．56．Java（＇umit：（Hollaml）：．lava．
 with American lamard）：（hina，India，dapma．


 China．


1859．Refomun l＇whiterian Church（l＇．S）：Tarkey．

18．59．Utrecht Mixinnary sucinty（llollamb）：Java．
1859．Jatch Leformed（Ifollami）：Java．


186：Strict Baptiot（Enghat）：India．
 Jiann．
180．2．Preshyterian（hureh（south．U．S．）：（hina，Pmzil，


186a．Priends（Englant）：India，Malagarar，（hina，Tur－ key．
 Beard．This was the pienour of the bumerom woman＇s lameto cunnectal mare or leas chomy with almont all the semaral barak．
1869．Lutheran（i＋neral Comuril（t＇．s）：India．
 Vew Zealaml．Ifrim（Weat amel sumb）．


 j（ッ）．
1876．Cumberland Prebyterian Churb（L．\＆．）：Jilam， Mexion．




 Trainomerinal mionamaria．
 Narth Ifriat．
1R82．Brekhm Minimary surjetr（Gormanv）：Imlia．
 Afrim．
 land，（＂hima．


 Euroj＂．



 interst in christian comentio．There ate a larmemmbir of other lowlics，mure ur lace fully urganzal．Fmplosing





 －Fi－1
















1ani．burma：thelioh bintiot．







N19．Mawaian i－lamh：Amerran linard．



 Miminnary sumety．












 Rill．
心公．Afria（fommal．Tamgayika）：Lombn Miwinary Sments．
 hamb．










































Thenshation of the siripturos.-It was the expurioner of the early mishmaris in very fidh that the ereat mans of




 have hortered on the marseloms. I bride smmatre maty be
 realy hat a writen form. or the form had hen provilul,
 shmald be 1 wal as the name of Gowl, how indicate simit. urane, sin, salvation, to rates who hat mever had any ade-
 tion of the dillienty i found in the fact that up 10 Is? 4

 in arehaic and inemple firm. These mast be pat int. monlorn limenacte.

Eiluretion. - Wherare misina have gane shots have
 to rad and umberstand the bible. With the dotemphent of Christian charches other meds have whur in. Preathers and tacdiers must be tramed tw do world that is feyond the

 thoobrical sominariws were entahishol. C'mmmaty lit:bronght still ather mads. Preceution eat off somu con-




 whet at ali, and what there are ane of the mas primitite sort. The whtrace of Christim thatht and life crates

 this is to crash out hope and ambition, withont which there
 in the early hivery if arery misum fielt, in wrat er on less

 seminarier. Thes have motly harn on the same weral

 Afras. This devepoment of wheation has siven ri- to






 flat.













 thate wor butwean axty and monty resularly orsatizal

Tombtics. If work indepondently, lut mon work in ean-nu-tion with some whe of the gemeral bands. They jay



 the state to hath pronerty amb in enerab, wheluct the timan-
 direety cemucted with some domomination or chureh and






 Their wow inelubes the collection of fumb and their apportimment to the forcign ficlds: the allection of miswimaries: the furmehing of information to the ehmelnos: this hohling of poperty, imat the decisan of questina of pulicy on the dichl. The are canluend of prominent men of the different frob-wors and in hathes wall qualified to comduct lage atrairs. Thw in thanciat standing io of the highest.

(a) Miswimery. The misinnario in a riven sectim of comatry are geneally formed intor minum. This miswon mete perimically for the diemosion of phins of work, the prematimn of ethates, the apmatimment of receips from the loward. the asigmant of misionaris, and amy onher hasines that maty enme up. The mission is agatio subtividat into stathas harge phaces wher ohe or more mission-
 impurtince there misoinn work is carreal on, generally 1hrough natise arents). With the exception of the sum total of expembitures in a single yar, and the establishment
 mal meeting is gumally final. It ordinarily sherdes the lemation of a misamary. The salary he is to reene is dewided be the bard on the basis of infomation from the mis-ions and in ace orlatuce with the general prine iple that


 in any place the are wally format into a chareh or consregation. Thair ecelesiatial position is in most ases regulated by that of bhe missimarios, thengh with many

 and the varion forme of communty life. As a rule, natices are nol members of the mission fropt, hat are consultad liy the miswons in the sumpal eondued of the work. There
 mombers of the inisions. In some sections ciremmstanes have aristh which moresitatal the fomation of avil




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IVith the duc.






 - Mriotian lite develomed.

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Volumics of serpene dixtributer in a -ingle seat.



 ment of the death poradty in many ennutrix: the hratime down of muth of the puwe of aive in couthern h-iat the












 There is, howewr, widently a bery docidel watening of the power of the grat poligion inver thinking mand bat


 (hriatianity.







 times, but in ernoral the prower. in thin partionlat hat
 *urroundiner commanitio. Thiv. bu tigure can hom, ant
 Natace christan




































 State whation imbothel man.

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 ＂vombline moth from Viekborer．Fi．oft this is at belt




























































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\hline FAEUS，RTI： & 1850. & 1890. & Per ceast， \\
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\hline & Crops． & Asraza． & Yield． & Value． \\
\hline lima & & 1．400．75 &  & S1．1．0．410 \\
\hline Wheat & ． & \(3.3:\) &  & 43．412 \\
\hline 1bits． & & 145.141 &  & 1．10，302 \\
\hline 1－atitur & &  & 41.110 & \(3!14.10\) \\
\hline 11：19．．．． & & ＊－．14 & 13．0，mitons & 1．342， 400 \\
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（1n Jam．1．Nat．the farm amimals comprisad 164.250



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\hline May． & －3 & ［111 & f：： & 11 & 41 & 41. \\
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\hline Stperinmar & i1 & ¢nt & 312 & 4 & 4.3 & \(3 \square\) \\
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\hline Noverubrer & ：37 & －＋ & ：－ & 41 & 19 & 1 li \\
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\hline Adam & ＋5． & －1．64 & Sth．131 & Natchez & 111111 \\
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\hline Mtalt & A1： & 1！， & 20：313 & Kısciusk & 1，394 \\
\hline Betiton． & 3－1： & 11，10：3 & 111.54 & Anhlamel & \(1: 34\) \\
\hline Bolivar & \({ }^{5} \mathrm{~F}\) & 1－12\％ & 2．t．jal & Ruse \({ }^{\text {dabla }}\) & 3.6 \\
\hline Calbema & 218 & 1：3． 14.2 & 1 d．tist & l＇itsimro． & \\
\hline Carroll． & s－\({ }^{\text {＋}}\) & 15．0\％ & 15．T3： & （arrollen & as \\
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\hline Clark & －11 & 15．1421 & 1203i & Quitman & 346 \\
\hline Clay & 5－11 & \(10.31 \%\) & 14．tan & Viesi Point & ？，itiz \\
\hline Coahoma & ＋ & 13．5in & 10362 & Friar＇s Joine & Lit \\
\hline Copunh． & \(\cdots\) & 2ras & 311203 & Hand hurst． & \\
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\hline Franklin & 3 F & 9，－20 & 11．12！ & Meadrille & \\
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\hline Cremada & S－1； & 12.101 & 11．31 & Giremada & 211 \\
\hline Haneock & 10－1i & B． B ： 1 & － 315 & Bay st Louis & 1.47 \\
\hline Harrison & 4－11 & 7． 49.5 & 12．141 & Missiksply Coity & 231 \\
\hline Hitals． & － & 43.465 & 334， 29 & linymust．．．．．． & \\
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\hline Jasper． & －11 & 1：103 & 11．ご & \(1^{\text {candilinf }}\) & \\
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\hline Lowndes． & S－11 & － & 2.147 & Columbus． & 4.85 \\
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\hline Pearl River \(\dagger\) & 41 i & & 394 & 1aplarvilt． & ？ \\
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\hline Pankin & －1． & 16， 5 \％ & 17： & 13randor & S \\
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\hline Sharkey & 12－r： & 6．．3n） & －m： & 1：allum Furk & \\
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\hline Warren & \(\bigcirc \mathrm{F}\) & 31： 20 & 3：3， 14 & rob－bur： & 13．3：3 \\
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－Rofrremer for lination of comuthes，set map of Mississifri．
\(\uparrow\) Formed silme census of INal．
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 montaly publioations: total. lat.
('hurituble, lifinmator!. and I'mal Institulimme.—The followinc instan han an anpurted wholly or in part by the State: Institute for the bastrotion uf the Blinal, at dark-
 1]nstrial arts are tamodit. Amoner the latter are serwing,
 and dair makine to the bovs. Thly white pupils admitterl.

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 sippi lamare begham, at Moridian, entathicherd in lses, for whites. Tun pinhle hompitals, one at Vich-burg and the
 the connty aml aity in whinh they are reanetively lonatod.
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and upwarl, who have rosuled in the State two years and in the clection disurict or in the incorpmated city or town, in whieh he othors to vote, whe var, and who have never ben

 ment, "r higanys and whe have path on ar lafore the first day of led, wary of the far in which they shall ather to vote all taxes whath maty hate been legatly required of them, and which thay have hal an "prortunity of paying areording to
 - ferobrs. la addition to the foregoing qualitications, an temotor mant be able to read any extion of the constitution of the State: or be athe lo maderstand the same when read to him, or arive a mambable interpretation thereof.
 turer and explorev. was the first Furonan to anter the limits of the prowent state. (rossing the batern bomalary near the present city of Cohmons, he proceceled in a northwetorly dinetion to the (hickasaw linffs on which the city of Memphis is built. There, in Jay, 154., he reaped the only lasting fruit of his wanderings in the fame which
 yoar or so later his haly was sunk to rest bromeath its waieps. In honor of his mimory the state lats given his mame to the comanty and the conaty-seat in it mearest to the point at which he made his great diseowory. Marquetle and doliot. Frumela exphorers, passed bown the river to the month of the Arkansas in \(16 \pi^{2}\), and La salla. ancotber indomitable Fremeh explorer, thated lown the Jississippi to the Gulf of गlexjon, and chamed all the country dramed by it and its tributaris for the Fing of Framer under the name of Lembianal (in 16e). The first colomy in the State was establishen by M. eloberville in Feb.. 1699, at Biloxi, and sotthoments were sumb mate at severa] other points. ['ntil 17: 1 he danixiana colony was a roval phovince with Bienville, the brother of illinerville as its gutemor. Crozat, a Wealthy Froncla merchant, was then grantal the proprionsthi, lam rlally relinguished it to the West India Company in 1717. which in tmm relinguished it to the rrown in lian. From that time till reded to the Engiish in 1763 it was again a royal province. Anong the mont impurtant event: of the prioul of lomeh possersion Wert the masaure of the garrison at lourt Rosalie and the

 thematres rignally defeated.

Nugro lavis were lirst imported in 1720. Owing to misrule. The thritheroness of the settlers and other canses, the
 rule there were but 500 settlers. white amd blatek, in all the prosince. lmuo the Engrlinh better govemment was extabfinhed, favorable treatios with the hadians ware made. and libural hand grants were offered. lmmigration of a better - lase of stolars at once sat in, and the colony, then called British Werst Florina. (lomrished matil 1iv(). when it was sul)-
 The traty of lise the inherembleme of the \(\mathcal{E}\). S. was recognized, and the :3tst decree of north latiture was made its




 and cotlon werelhe exports. In hatin the section of comatry

 ritory, with the capital at Natrehoz; lout in late the cappat al
 -till elamed all this territorg, amb for a while there was





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Meridian and Viek-hurg then emmprised the Sate, for the Chertaws and Chickasaws atl wwowl all the land X. of
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 stitution was alophel. 'l'he state ham in ratal rapilly in


 prevalent culminated there. as in ether stato. in the linan-
 the State rapitly recowred, and comtimand to pronper all the ontreak of the civil war. Mi-w.apin hartily favored the annexation of lexa and the war with Mexion: amb no troops won grepter homer in that war that did the First

 month later deffersum havie, of Mis-isiphi, was elected presilent of the Soulhernfonfederacr, withbidhes at Mohtgomery, Ala. In the war which followad Mininipli edgtributed her gutit of men and meane to upholl the 'onsfederacy. In or on har bowlers were fonder the tiorec hatthes of shaloh, lukat 'orinth, Thickasaw layom, l'ant Gibe son, Champion llills, Viekshare, Ilarri-hure or Tupela, and Brice's Crows loads. amd math of her bot territory was
 Clarke was sint a prianom to lourt lulathi, and on dume 13 , molge IV. L. Sharkey was ippointed provisomal governor of the state, On O.t. ? followine delegate tor 'on-

 sas were united in the fometh military district. In dan..
 elocted under the Federal hemintation det. was atormbled: but the constitution proparid was defated at at general

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 the state ware admithel to theor seats Feh. it. 1sio. The election in \(18: 3\) of Ahllert dmes as lemermor was very objectionable to the white furple of the Stite. Tanes had become esorbitant, while property hat ruibously depre-
 come frequat. A convention of taxpuyers assembled in Jackson in 1si.j to institute meanures of reform, but then petitions to the Lecislature were whemed. and billa introduced for the correction of evils were defated by the Negro members. fion. Imes intenditiol rate prejudices by attempting to argaze a louly of Sever militia to pre serve the peate. The Nowember elections of isio resulted in the return of a white majority to the Lesivature: and in Mar., 1876. artioles of impachment wore drawn hy
 that the artiches withamen. A. K. howis, LiontomathGovernor, and T. WI. Curtozo, state sumerimembent of e..hecation, both colured, ware also imparhell. hat were permitred to resirn. John M. Stone heram (insermer and the State raphly reganed promerity. In 1 doll a mew comat tution was ailopets.














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 train．Then buw oublet to werthw have hen formed ly the lator alluvial Ansusto，and are very fertile．Delow tha 1 manh of the whin the river flows thengha a region whaly fomed by its own deposits．Xamemus borings
 Lus ial hacin hemay Gare was unce an whars．or arm of the tinlf．amb that it has heen rated，ahng with the cotire winthern ןurtion of the contimut，alwht 100 fert，and thon
 the river italt．Thas futtin is shan an the arempary ing mipe by thenk areas．The width of the allasial resion wario from 30 t＂ 20 miles．It is divided into there arat hath．called repeetively the st．Francis Basin，on


 them lanime．Thery then act as ernat rearsums and storage
 thomeh them．＇Tlity greatly delay the high－water sages on the lewer luntion of the river ind honghan cut the pe－







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\end{tabular} & Viasio of ＂redmary high to law water limathre． \\
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\hline ！：01゙い。 & \％ & 146， 1414 &  & 1．4010．4M！ & \(1: 3\) \\
\hline Whoultis & \％ & 116．464！ & 1．16］．amt & 1．204．16\％ & 11 \\
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\hline  & 11 & 140．1414） &  & 1．3016．1471 & ＊ \\
\hline Vr－limbluye & 5 & 2meimat &  &  & 1 \\
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It should he adfed that the equity tribumats mak far for
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Hills.-In the making and revoeation of will the gurso
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> Kinsiand lis 11. . I lindra.












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\section*{Milr：S－A．Al：}


















































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J. J. S. Sterrert.

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I. Al. Incue.































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ramed in a piane armund the spindle. The next slep is the

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\section*{A. S. Kingoley.}


















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\section*{Mode，or Mood：Sue Vomb．}



















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\section*{Mason－foths：Surlefles．}
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li, A. Limosvenor.
Mohammed: the wame of four thtoman sultans. No-













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 woll versal in gongrajhy and matheratios. He favored



 in 1460, the "mpre of Trehizom? and Wallachia in 1461, Kin-
 f"ont in 1470. the Crimua in 14.6. Alhania in 1479. amd cap-

 the death of that hero (1467), and hy the Knights of St.
 overthrow of the lizantine of Eastry bmpire by the capfure of Comstantinoble ( 11 ay 29,1453 ) after a fifty-three days sidge. 'That city ha reoramizel as capital of the ottoman cmpire guarantumg the Christians many rights and privilews, and attratine inhabitants from abroat. lle died Nay \(2,14 \times 1\), while lowher his army in an expedition, tha object of which has always remanimel mbinown.-MaInMMED III. (15!5-160:5), h. in 1596; son of Durad llI. and of the Tenetian Batfia. On his aceession he had his nimetekn brothrs lawntruner. An intmlent and incabable prince the empine rapidly dechined during his reign. lnsurrection followed insurvetion, and the wars with dalatavia, Wallachia, the German empire, and Prrmia, were disastronse alespite the capture of Erlan ame the Ottoman videry

 of Ibrabime. Indifferent to the empire he devoter him-
 fy fwo illustrous grand visiof of the kupruli family, was disant rous. Its chinderenta were the wimplion of the con-

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 man ll. to the throna. Malammand was confmed in the aromplio, where l.a died five yearo later (1602).
F. . . Grosvesom.

Mohammedan Art : the art of the Mohammedan peoples.






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 XI:




















 isls, Falian, and Fremels.








 at buntrine July fi, 185. Kevind by II. A. liever.

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\section*{Mujave Indiams: sur Voman lNomas.}

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い. K゙. lobere.


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Moldavia: Sto lan maxia.











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\(11: 141-\)













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of lulia．Jin－




\section*{Intion（1）－－}

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 frinal with. A dran ing-rom with it- welinary fumiture. and at company of man and whun in their ordinary dres. furnimad all the newseme material.
Thle fohlowine is a list of Mohieres dramatio works, with the dates of their tirst proluction: \(L\) fitmerti, 5 ants, verse

























 (119:3).









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Jimsint ing H. H. - Mun.















 Yirk. l-a:

Molin.




















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The Fuot－＇The，primitise that




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II) 3 , ryt.e











































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foints in the fane the fores are in equilhtium, and conboms. if serval fores in the same phate are in "paililiman the alontmace onn of their mement- with recaral to




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Fiti, 1.
and bugth is \(l\). is doulen with a single weight \(W\), whose distane tron the left and right sulnonts are mand \(n\) re-
 Weicht W. then is \(H_{l}^{\prime \prime}\), and the racion of the right sup-
 tant \(r\) from the lift -ughort. is \(H^{-\mu, i}\). Accordingly. the

 :and leconins \(11^{-3 / m}\) at the lad. The gratest bending mo-
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\[
M=\frac{1}{2}, 4 l, r-\frac{1}{2} \pi x^{2},
\]
and the law of variation of the monnente is that of a parabah. The masimum hothin mment oceurs at the mid-
 Which in why ma-hald of that dhe to the same load concentratul at the midut.

The staticel moment of a flate surfite is the sumb of the
 fince by its distane trom an axis in that phate. If a be any ehmentary anm and \(y\) its datane from an axis, the wheral "xpmond fire the sathal monnutint in Eug. As Gha of the simplet - Farial :ara the metange in Pig. ?
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Fige : bi matiplyine the :4rei of the suffact
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\section*{H．（＂hrtetay Jombimem}

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 self－saterifice and mortification，juat an the limbus had done centuries before．

Eurly tsceticism．－Justin Martyr，writing ahnat the mid－ Whe of the scomb century，remble that Chriblan were alrealy begiming to alotain from thollo withe athel seanal
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 in their dation，but other surts，no law ot remumathan they in their emphasis of asceticism－as，for instame．the Man－ tanist－were mot dualists in any senw，abl unly rapmomet in an extrone form the same thand whith wat making itself felt in the Church at larer，and the srowth of whif has been deweribed．

Anchorefir Lifer．－Ont of this＂asectarina in sumtion，＂an
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 ant heine trandomed from religins instithtions into for－ Ireses and military canos an still worse．into dens of vier． in the praction of which the monks themedves had their full hare．In the hatter part of the eishthematur strenn－ ous eftort－were male hy Janolict of Sniame to hring about a refomation，and his eflomts were semmed ly Charle－ maghe with sime sucoss．

The＂Clumine Reformetion．－The great ruformation，how－ ever，＂am：with the exaldi－hment in ！10 by Willam of Aphitain of the mantery of Chony．This momatery was put mollor the immetiate jurisidetion of the pare the Bene－ Abetine rald was adnated and risurnaly enterad and the influcher of the new fumdation was spectily felt far and near．A manher of other moniateries－newly fomber or re－ organizet－sum unito！with charay to fom an sodety known as the congreation of＇lugny．With the Cheniac abot at its heal as arrh－abher．Thi was the firs instane of the federation of sepathe monaterie－a practioe which later hectand quite cemamom．

The atim of the Chaniade reformation wat threefold：In the first flate，the remination and rejurenation of momasti－ cisin－an am which was sucersfully acomplinhed daring the tenth contury：in the sumblace，the extemsinn of the momatio primiple to the life of the serular elergy－an am
 hary upen the latter：and in the thind phace，the complete subjucation of the lay word to the reformed chergy－an atin which was realizel in the fapal mpmaty of the twelth ath thimenth combrics．Mimanticism．which had then in the bestming al tight mot only from the world，bat

 －pirit－imos Alo servier of that rhareh，and these who hat rambural the word now canc bark into the word to suld－
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\section*{MッパロアOLIE}
















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lo the (ate of the surar monopoly, the price of refinem sugar lngan to incram befue the fumation of the trust. hut that of raw susar kept pace with it. When the trust
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 as its preatio pawer thath as a burer and seller, dombetess made fis puffits "rem more than the figutes show: but eren thi- comparatively small mompelistic price worked in part it: cwn dreat. Situr some two years it was emongh to brine abon atherse decisions he the contr, involving great expolse and a reersanization. A honile public opmion, and mpecially the high porfits. callad into the firld new refineris, motily thom of clans spreckes in Phatelphia, (almbe of utictinge aftective competition. Priace were thas lared dons. mat the diflarase in price betwern raw and refined surass was hat reer lithe grenter than befine the trust was formel. The greatur gains if any, were prantally all from savige maler the better orgazation. In Mar., isse, the chicf combuther retinerins wem absorled hy the eompany. st hat sime thell it has hat a mere neaty complete momepty. 'Ille effer was sern at once by an inwaicol profit of ind haff mot a pund within a month, wheh wom themare an incruared pontit on hearly, and at thas gute. I adt a pumbl.


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 （18：4） \(5.61 \%\) ．









































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 fronn the X. and bring-dry wather. 'There are Anstralian





 rel, ligmlur frettion on Wimls (ISvi), amd the present writur. The Torma, Momome (13nll. I'hil, Soc, of Wrashing-

\ark W. Harrangtos.
 at ('inmbai, france, ahmat latoof was provost of his native
 lle wrote a r'hromigur. namatine haw history of France from 140 (the date at which Frowsat stops) to 14t4. The
 Emerlish trambation ly Thenmas Johnes ( 13 vols., London, 1N10).

\section*{Monstrosity, in matmal history : Sio Teratology,}

Mont. Ment. Month, Mentla: the Eyphtian god of war. who was equccially worsherel in llermomithis (Frment) and Thebes. She was barinusly reporebted as a hawh-headed deite though he sumetimes wore the had and horns of a bull whirl was sarred to hime moter the name of Balkh, the
 with the hari-dress promliar to . Imom. In later times lue


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 and linatk，in the Swot（iraso llills．
suil amd I＇moluffoms．－I＇he menntams of Xontana are H－bally woll covered with forents．lint the trees are if de－ －idmolis，almost exclusively willow，phlar，and eottonweod； if moreroen．pint，spruce，fir．cedar，mat halsam．＇Jhere is very lithle hariluond timbur in the State．（irass and flowers
 hhis will always mainain a high tamk， 1 ha＂humely grass，＂

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\section*{lieviand ly, A. R. Daksh.}







































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\section*{Mantabo'me di Cala'bria}










the gartum of Porta santa Maria-one of the best statme

 Mark" he thill tho tharth of sian l'anlims.
W. I. s.



 Philip ll., owiture to hat kouledere of music. Itre was the enablad to bisit woral fumbu comatres partioulaty the Setherlands and laty. 'The work for whith he fimen in



 publithel in an incomplate fum al Valemia in lase or 150, nor was it wer finished by its anther. Ather his death,
 Alonso Pre\% a phymian of Salamana, carried it a litile way. acemdine to Mnatmayne own phath, which had been

 protenar of Getek in Valencia, furnishorl another continu-
 onymo dr 'Toxeda, a mpmiard residing in Paris. preparal still a hiril comtimnation. the dultest of all (tharis. (6:2). The wighal romane the emme at once extremely fombar. not anly in spain but in other commes. Tramblatiowere made into Latin. Frenth (six versinns), German (two versions), Duteh, and burlish. 'The last, ly Barthumew Yones (Lamdon, bign, follo), as the introluction shaws, wat mate because of the interest folt in the work hy the illuatrions gromp to whioh Sir lhilip sibuey bemerof, thomeh its publication was delayed nearly twaty yars. Anonher sigh of this interest is the fare that the Dimus was the immodiate model of Sidnersawn - 1 radim. Besides the Moma, Montemayor wrote a considurathe amentut of vers. of varime
 These are to be fomme in the c'entionere de les ofores de Forye do Montemeyor (Antwerp, 15nt, and oftem), and in
 herr, forge de Montemager, srin Leben und stin Schäferoman (llaile, 1-sib).
A. R. Marish.

Montemorelos, fommery lilon: a town of the state of Nato laen, Mexien: 5e miles \(\therefore\). E. of Monterey at the

 renter of a richongar-pmachag district. Popabent 10,000 . 11. 11.

Montenesro (inswrian ('zrnegore, Bhack Mountain): an indepment principalits of Enrone ; situated hetwern 41

 miles, was sontwhat increated by the Congrese of berlin

 The conatry is at mane of rusend and hofty momatains, with



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ate attempto of the Ottomans to sulatue them. 'Ihe country

 the capital, Catigut, moral times capturad abd harned



 then andisted by linsians. Whom they rexam with peroliar

 in 1813, when hidpine to axpel thi- French from the latma-
 cratic. the metrontian ivalihat of latigne exercising dovelia authority: but it in mow a hombitary absolnte


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> E. S. Cirosivnor.





 novelint with Las ('hereiliers dit lensqumet. and after 1848 he abamoned pulitios for litoranare. He has produced novels with surpring mandity. bacla work, as a rule has

 labnators, more than twenty phas. He deponds for his interest unan exciting incilent and sensational situation.

\section*{A. (i. Caxfielio,}

Monterey: city (setted he the Mexicans, former state
 of (aliformia, refi ! (1): wh Mantory Bay, and thes. Pac. and the Monterey and l'ronn railways; 80 miles by sea from san Framinoo, with which it is cimmented hy a line of
 wathur" has electric lights, 8 chure hes. large puldic-schoot huildinge : State hame with combined calital of \(8,0,000\),
 Coltun llall, where the state comstitution was signed, and the old custom-house are still preserved, hat nearly all the




Eutor of "New Era."
 munt impront town if the shat of Sumo lem. Dexien; in a valley or small ghain. partly surromded by picturesque momatainsul the Sieran Madre (-w map of Mexico, ref. 4-6). It is on the Mexien National hailway (from Mexion to taredn, Texat, and is combeded liy wher lines with Tam-
 (anstruction (1sat). 'Ihe city coners a large area on the lamke of the litho riwer sain ham: the house gentrally have only onn stary. The prine ipal jublic huidinge, (at thedral, itho. faer on two lages spares. There is a large


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 took his seat. Tha noxt years were semt in tratil irt (incmany, Sutria. and ltaly, and in obsarvinct the institations and inamaers of those eomatres. Mantosthien werlt moxt to Encramal, where low ruminel nearly two yeare, stmy yong the
 and appliad himmelf serimusly iohintoriond -maly. "Ther first fruits of this labor wera the ("onsidimotions sior los ciuses de lu grandeur el de la décadonoe atos bomains (1-:34), in
 the very complete political expurnuce of lanne. Thu / Hin-
 ment of Roman indeas in chacacters, is chandy contoe-and with it. All this, howner. was proparatory to his erreat work.




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 pemtion de le hestoria de le lipqublice briental（1854－ia）．

Merbert ll．smith．
Mon＇taz．Mare Dolores Fliza liosixata，Comotes of Lambelda．known as Loma lowrez：alsontames：bot Lamerick，Iremon，in 1sis：was the dmpher of an ensign


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 he wat bocoived with shower of stones，and fell back whmmal．Fomr dax atter he died．mondably more of grief amb shame than from the efferts of his wommens，Jume 30 ， 1500．SA．Present．fomquest of 1／exico：Bancroft，Mistory of the［＇ocitir states：Jherico（ral．i．）：Bermal liaz del Cus－ tillo．Mistoriet ierdadera de la conmuista de la Nuera L＇s－ peोы．Herbert II．Smith．

 Year－in the army．hat cotered in 1675 the bemerlietine con－ Eremation of saint－1lanr，deveting himself exchavedy to
 lation uf l＇hutaroh：travelod in Italy，and settled in 1701 in l＇aris，whre he dien bece 21,1041 ．The first fruits of his extersive harning ware new eritioal edstions of sereral of the Greak Fathers，hut his andmang fame rests mpon the






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Montfarrat：formerly an imbproulant durly of laty
 the latian prowine of＇larin．From the time of Otto the tireat it was emomed by margrabes or marguises of whom

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 lar as now to be sodreely randable. Jle lad Lradt replla in his day, both in and rout of thain.
A. R. Maresid.



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Monticello: town: eapital of Jotferson ea.. Fla, (for


 sonville. It is in a farming amd fruit-growing matom, and



Monticello: wity: mapital of l’iatt ero. Ill. (fen lowation
 river, and the Wabnan and tholl. 'int. railways: midway


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 fin :abrent :and jllantions Frand family, traced back as
 Framb fomatary, moblew of Ealred. King of Finglanl.
 of Framex. and amontr thote of this mame were sis gramd conatables. twolve marnhals. four almirals, many carimals. Gumerals, gramd chamburlains, and nther high magnates.
 dural lines of this lamily. Coment llam amd Marshal Juxembhatis Were both Wontmonemedes.


 Harienamo and theziedes, and was raptured with Francis at latia in 15s. On tha rencwal of the way with C'harles V lum ermanaded with suth slucess that he was appointed hy Frander tomstable of France. In the war with spain he was defeatol amd eaptured at st.-Gbentin (155). During the first Iluguemot wars he commandal the royal armog, be Was faken prisoner at the hattle of I beux (1562), but was
 and funght with ("uncé at saint-Jenis. Je was fatally wombded in the latter emgarement, ant died on the following day. Nove 11. 106\%-IJexRy. fourth Juc de Montmorence, a grandsna the prectling: 1) at Chantilly. Apr. 30. 18! : prodion of hamry lV.. when sisteen years olel becane atmiral of franco and Vicorof of C'anada. He served with distinction in ltaly umel arainat the IIugnenots: took part in the rebellion of (anton if trleans, and was executed We order of lijehelien at Tomlons" O"t. 30,163 ?.

Montmoremer. Falls of: a heantiful eascale in the Montmoreney river \& miles N. E. wf guebec. The river rises in snow Iake, Montmoremes lomnty, and llows s. for mare than 30 miles. emplying into the st. Latwrence, after theng joinet by Ibes Nefores river. Nomet a mile above the
 leajb, arte the hathatal steps, formod by the action uf the water an the rock. Af the hase of the stopor toreaces is a narrow, water-wom ehanmel thromel whith the stram rushom at ja a mill-rate wer comeatios and through setthiner pands. between tho fall and the matnal stops the raver is crossed by a womden bider lailt sine the destruction of the beantiful sumpundon thider that onee spanmed


 the matern situ: In the winter the frewzing spray forms




 Walfa from landing at Matmarnacy folla. A ralway (ant moots the falls with duchere.
I. D. Ilarper.

Montpelier: (nwn: latar laky en. hata (for lowation of


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 (1880) :546; (1856) 1.1it.

Montprlier: city: capital of the Tatw of bitmoname of Washinglon (bunty (for lowation uf tomaty, w... man of
















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Juring the war betwent the North American colonies and (imat Britain. in Now., 17 S. Pris.-(ien. Jichard Montgomery,
 and wiptured Montreal. lle set ont from thence to join Armold at (queber, where their joint foress suffered defeat and Xnntematy was slan. simer then. with the exception of the ex-itement conmected with the rebellion of 1837 . the histhry of Xontral has been that of ever-inereasing growth amb proproty varid lis ucoasional incinants of note, such

 by anob in \(1 \times 4\). the grat tire of 1 ses, the opening of the Virturia bridge by the Prisuce of Willes in 1859 , the great flome of wisl. the Oramer riots of 1sit. the smallow riots






J. Marbosidd Oxley.

\section*{Montreal d"Alhino: Sie Fes Moneade.}

Mantrosf : town: in the connty of Furf:ur, sentland: on

 its hambhar-works, llax-phinimg mills. and mannablares
















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Mighambers，whon followed hime from hat rode of the 1 namp








 the kiturs inamol．In Mar．Ifong，he lambal at the roth－








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 trineourt．On his arrival at emme do Monts fomm his mot
 imlividuals，and he failed to whtain imdemmifustion．He
 of Poutrincourt Mar．，Jehta：dispathend Champlatin athl
 them other vesela lfiox the the aid uf which chathere wa fonmed．On the wath of Henry，in labl，fe Monts luat favor at court．D．in Paris in lifl．

Montserrat，mont－ser－mitt ：an idand of the liritish West Indies forming part of the lamand indatsentony a crased













 a captain in the bary whor，in the hatmerat of him， 1 ho


 of the haval and latil forme．andiffor the death，ha－ 110
























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lammer．
r．an：at ：an i
ally pass a part of each rear at the royal palace, situatem in a beantiful park. Thuza, though for a lime the wotal reat dence of the enveat "lheonkome in ber known as the capital

 cent buiblones. Very interesting menomials of this yurem are still preseved in the eathedral : atso the famous iron
 bardy. The history of Jomza is intimately connevted with


 thom: warked on a linm till lue was swentera, when be became cherk in at but ind show store in bustons: joinest at Congresathomal ehmoll son after, and in twis went to (thicago, wher he entaterl zeilhusly in missionary work anmeng the pone (r)asses: in Joso than a year he built inp a Sumdayschosh which namberet over t, ofol chihtren. The was in the service of the (hristian ("mmmisson daring the civil war, and submequently beramo eit! missonaty of the Voman Men's Christian A sombition of Chiceutn; a chumeh Was built for his comverts. amb he became its momblamed pastor ; in
 furniture, which hall heen wiven him. Were destrowed, but a new chureh was eroeted in its place. In tsa3, aceomphameld by Iat D. Simkey, houly went to Envope and held religitus recivale at Edinburgh, Glascow, Duhlin, bonton, and ither
 and hehl harge meatings in varions eities. Mondy has sine continued his evanorelistice latmos in the \(L^{\top}\). S. and in Great Britain. Ih, hat bstablished form schmals, three at his mative town of Surthfiell, Mas*, ant unte at Chicago. T'wo of the Torthfield sohools are acodemies fitting students for colllece, the third is a woman's tramins-schon, while the ('hicigy institution is for hiblical instruction. Ameng his puhlishorl works are -1mores amd thectotes (1sio)
 (1s.4): Bible Churacters (15ss), ete, and several cullections of sermons.

Mooltan, Tulia: see Nultan.
Moon [H. Eng. mome<0. Ener. mönt: O. H. (rerm. mīmo

 the satellite of the enrth, beariner the same relation to it that the satellites of other planetson to their primaries. In size and mass, howeres, it diffurs much less from its primary than do any of the other satellites, its diametor being more than one-fourth that of the empth, and its mass nearly oneeightieth.

The following partienlars rebate to the size amb motion of the moon:
Greatest distance from earth's renter.

Least distance from tarthes center.
Least distance from earth's surfine.... Diameter of moon.
Mean interval from she new monn to the
next, called a lumation.
Density (that of the earth \(=1\) ). \(\qquad\)
Gravity at the surface (earth \(=1\) ).
If the mean density of the moon were the same as that of the earth its mass would be in propertion to its volume, or about one-fiftieth. The differmen in density doms not nereessarily prove that the moon is composed of materially differ-

ent suhstanoes from the warth; it may arisa from tha fart that the furesinre in the interior is mueh hess than in the in-
terior of the wath. The fore of gravity at the monn's surface is ahout one-sixth that at the earthes surface. 'Jhos an
 wor a stile suceral yarts high.

Phases of the Hoon- - 1 vareful stuly of the ehanges which the monn gnes through in the comrse of a month shows Hat it is a dark ghobe, shinimg by the light of the sum, and revolvine rown! the earth at a dielame much less than that of the sum. When this glohe tirst emorges from the sun's rays the hemisphara tamed towarl the corth is all in darkness, exede a biwht border on one side, whirh we see illnminated. This gives the torm of a crencont, whill one can asily romonduce by looking at at orthe illmminated by a canWhe netrly on the ulowite sile of it. It will freruently be nuticen, however, that when the monn is a ereseent her whole ghobe is visible, shaning with a fant, ashy light. This ap-


Fig. : \(\dot{\sim}--1\) ortit of the moon, showing the lunar phases,
pearance, sometimes called "the ohd moon in the new moon's arms," is evidently dar to the light ruflected from the earth upon the dark hemisphere of the mom. When the moon, moving through one-furth of a revalution from the sm, is in the first quarter, the hemisphere turned foward the earth is one-half illuminated and oup-half dark. Tha globe thers prosents the familiar appearance of a smineirele. Is it moresaround into the position of full moon, or (plusites the sun, the entire hemisplere turned toward us is illuminated. Huring the secomb half of the revolution the same phases are repeated in reverse order.

Sidereal and symodic Revalutions of the Hoom.- When the nuon, after fassing a star, emompletes a revolution so as to come latek to the same star, it is satid to make a sidereal rewnlation. The timerersimed for this is ?3d. ith. 43m, (here A(ofelehationi) If the sum Wrex alplarontly dixel amoner the stars, this would also he the periml from mie new mown to sunther: hat, owing to the
 earth's revolution aromul the sum, the latter aphears to deseribe a rompleter revolution among the sars in the course of a year. ilpon if we suppuse the moma (or begin a simeral revolution at the moment when she is in conjunctimn with the sum, we shall find that after eomploting such a revolution the sum has moved away from hat point about ai. 'Therefore the moon must






 ways pesented the sume lame the canth. It therefore







 ats surfur always pimes in the same livertion. Niw, as the moon revolves aromal the vath, the enth man athear from


 rotate at all it womh appert to an obarwor the varth tw
 the earth ha woulal son all siles of it in sucoposon: lont in order to turn the sume face always tomaret the ath it mant
 the earth and in the sinne direction.


Fing 1.-The full moon.
From thic eorrexundance betwern the robation and rasolution of the man, it follows that the latter is mot a profert




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 time to time. "This vithation i- mallool the lithation of the

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G. F. K.


























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 hime to fall back ullu Comma. Ho comblactel the retrat with materly kiil. It wa-killed at the hat le of Cormmat by a camon-shat Tan. 16. 1-9!. This battle Was an extremuly firitel and and the vioury was clamed by buth - Whe. The liritish at onew tow shife for Guglam, and the thwn was eracuatod. The Bumen! of Sir John More, ly liwe Tharle Whlfo, ha* immotalizal hath its subject and

 fat, of Roman (athulie parents: was in yonth dietin-
 Iniversity and at the Midule 'hemple Lonton. His first vilume formas thp 1 mempen ( 1 Nom, was a shecess; the

 Whare lised to retret. If. wan in the civil servide in the
 maried in \(1 \times 11\) hes y low, an adreo of adminathe har-

 as in their wan day, hat at small valme now. Ilis sulse-


 (1ser): Lite if Rypen (1N:O) amb llue Mistory of Mehent






\section*{hevisel hy II. A. Beers.}












\section*{K. Homt.}

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 temperate and warm aymas thanghat the Mord． f．A．La゙い。


























 being natuel from him（inhed－al－Varik（the hill of Thrik）， new shartened intu dilmatate．In the conme of the mest



 Vicerogs of Afria．Many of there men thay wore fwory－
 and the arts．Which hath fallon into aboymen foward the




 the plains of Toms，atre kown to rery indent of hitury

























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\section*{Namer：remelic．}







\section*{Moqual I Inlialı}




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 ＂11月： 14


 copital amb charfown, i- shmated in the valley of the river



 celleman of to winn it has been called the Perivian lan


1]. 11. Smitu.
Mogmednmman or Matamin Imblans [Moguelamman is


 two tivinions- 1 ha Xiwn (twentr-three tribes) and the olamentke (twelve tribes). 'Jhat oririnal habitat of the former
 river, the surra Sevadianat the san Jomann, except a strip on the east hank of the last-mamed river. The Jiwh terri-
 WV. by the lacifis (homan from (Gulden Gate to a paint below Buntera llead, thene by a line to the sonthwestern conmer of the Yukian lerritury northeast ward of Santa liosa, and on the E. by the Comehan famity.

Ifabits cind C'ustoms.-As recontly as 1876 the lliwok Were described as the latopest buty of lmhans seaking the
 the luwet in endture. Their beliefs have heen descriled as superstitious amd deemdal, their conceptions imbecile, am their lequmds absadn almont beymat helief. The Miwok trihespratiend comatiom, but it was never universal. Their houses were very rumb, those ot the Miwok having been simply framewres of poles and housh which in winter were coverel with earth. In the mometains a cone-shaped summer longe af punchews wat made. Acorns formed the prineipal form! of these tribon, and were stored for winter use in gramaine rateel ahowe the ground. It has been asserted that the lliwn ate every living ereature indigenons to their territory save the sunk.

With the Miwok, chiefship was hereditary except when the successor was not of sutliciont commanding influcnee. As with most of the tribes of cabiforma, marliaue among the Miwok tribus was fratedeally by furehase. When wins were bum one af the childron was killed. Shamanistic rites were performed by loth men amb women, and searification and sucking were the prineipal remelial arents. The acorndance as well as a momber of other eremonials principally for teastiner of amusement, were formerly celebrated by the Diwok. So pulnoty dance was celebrated, mor did they observe a dane for the dearl. but an ammal mourning, ambl smentimes a suctial monruiner, was ohserved.

Populetion.-CHparatively \(f\) ew of the matisea of the Miwok divisom ot this stork survive, inm these ate scattered in the mountains.

Dernoritass-stephen Powers, Tribes of felifornia.
 ton, 1856: 11. 11. Banmoft, Mistory of C'uliforniu, i.-vii.
 F. W. Hobiv.

Morafs. mö-raa as, l'rubexte: politioian: b. at Ith, Cano

 the fravincial anembly. ln 18 ou he nvowed repmblican
 him from taking any forther part in pulities: but in 1 siat

 adrance their ranne \(\ln\) ksis he was chected to the natinnal

 Dfar the revolution (in whalh he han an furvolal fart)







11. 11. Sinmer.






\section*{}

Maral Plilosophy moral is from lat. meralis, relatins to morals or manmers, loris. uf mos, moris, manmer, "astom, (x.mathet, wiyy of life]: the theory of the ralue of
 uf the phinsthate as diatinet from the physionl selemees.



 —deal with the investigation of value. They reach their
 valimate wi its worth as a bat of the whole system of ex-
 nommative, in that they all recegnize a morm or stambard. as duty. troth, and the erond. This, hewever, is a derivative mark, not the jumary ditferentia. The norm is simply the basis employed in atimating rahe.

The trigin of Ethical Thory.- In prinitive socioties murality is identified with the custems of the community : :und thea costoms, receiving religious sanction, are this bimdiner mbormoly as well as morally. 'lhas lact temds to rotard the growth af any theory of comduct. Custom when consecratiol hy religion is the ssenter of consurvatism. Free inuniry womld imply looth lack of loyalty to the commmaity amd disperpect to the grods. The chinf offset to this extreme conservation is fuma in the existente of the councils uf the whmmaty. in which cortain questions are discuesed amblecoledum theirown merits: hat amone wery tolk, except the (irenk, this erem of free inyuiry wan checked by the assumption that the decision simply declared existing custom, ur else (when the comucil was a prionthend) made known the immediate will of the gonls. In Greece, the discussion of the moans and ends relating to the welfire of the community took at an early period a wide range, and was freed from any slavinh sulaserviency to the fixed habits of the past or to the diviu will. I divine sanction was supposed to attard to the thrmistes (or judjeial decisions), but this was rather in virtoe of the wishom displayed in them than becanse they were regadded as authoritative expressions of will. We find the early proverbs and maxims-the so-called ghomic morality-ditierent from those of other peoples in putting inpurtance upon certain habits of mind and states of character rather than poon the performance of eertain outward ads. Surlh maxims as "Know thyself" and "In mothing exces " alrady contain in themselves the principle of a frew as distinct from a customary morality. Thedevelobment of demmeraey, with its fopular judicial tribunals and its assmblies for the general discussion of political matters. Was a further influmere in promoting the growth of monal reflection. A preminm was put on fuwer to persuade and to move the citizens of a community in all matters of pmblic [ulicy. It the same time the Greek, with his strong commanity foeling, always referred the measures
 critcriom. Along with this development of a ratloctive standard amd method of judement went a continual increase in tha exchange nf culture betwern Greece proper and the dired colonies in A ia Xhaor and Italy. The effect of this was to abstract the ermsideration of moral questions from their indentitioation with lecal customs. If we add the vasi expansion in art and science found in Athens, consequent unan the I'cran wars, we have all the material for a grown of comsejoms ethioal theory. The immediate stimuIns In this "ame from the (irath dramatists on one site amd from the tandings of the Shmast on the other. Anind the
 "Mpan-inn of life, the hamatise tried to uphohl a morality
 fombun' culminater in the assertion that the fundamental
 the alfare of life: meantiane the suphists were moving in पुपito al liflerent direction.

Ther lublume of the Simpists.-In commetion with the rise tif the donmeracy and inerase of intolloothal inter-




 afle to grive his papils skill in boll private and pmble affails: that him papila learmed to whate their own homsts in the bea mamord, and became able to speak and ate for the

 social welfare from the tralitione amel hatrin of any particular eommanty, and to diantos than with reforme. th the wolfare of the stath at hares. 'Than wemeralizalion of tha







 will of the stomere: that daty is simply the tow-ity of

 persimal alvimtari-
 seribed as an efturt to use the fersitive side of the sumintio teaching agatinst the nerative shle, and in the intome of an intrinsic. marality like that tandeht be the dramatiots. bat

 or by institution-that is. hy sher ensetment (teqes). rates endeabere to show that it exists by the bery mature of man and the state: that thate is a sinder and supectue good or end for the intividual and the commanity, refermen

 Exerpt in so far as the aront kows the wom and act with referene to it, his comduct is purely haphazimet. Sorvatus in therefore in arement with the shhma in attarking all morality that is momely curtmatry. Su far an moratity in





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 this is the pratioce. not only of tha ardianty citizen, hat of the politician, the juet who sets up an a matal tarhire and the Sophist as a profestel hather of virthe. Sa ne at than has a fixed or mitroral aim, paterne or rule of monaro
 knowledge of what this suprome wht miling wan in: his represents simply a damal that man do mit atam aln

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 and to estahlishmore in denal it anmethon with wemb







































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 ＂mbire．（iat was the almato laweiver and judere．Moral laws and the law off fheneal mature were the＂xpresion of his will，ahmost his arhitmary emmands．The moral bife




 imbumed by the tramiennlont faml，remblted in making an
 all－juprotant．lut the forant and anthal is the matural， which therefore ran mot bu iswored．flous there are two ＂rams of maral knowledse．wishom，making known the natural lan，and revelation，Inelaring the sujermatural：
 matrmathos fere matizine Jar law．the tate the secolar ＂xpmenon of the livime will．the kinerdum of nature，and



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 nature anterolent to and enntrolling poition haw. Thas natural haw mizht he dofinarl hoth at the haw of roand and as a fumburmal weial latw. It promit from the rational impulae in the natum of man tor ark for promanm
 The law of mathe if risht is lo the whanom tomb to fore


 externum. The fernur wa the requn uf religinn in whinh all moral duties wore includel, the lathor the regint of jurin prodence. Leibuita pointel out that moral hatien muat have a sphere of thatir own, separath irom theolyer on whe

 the science of morals ame of civil lan: Ghe fmomamal nature of man is towarl rational happincon the primary




















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 the moral ideal ambletimita momat datere Thi thome of





 Clarke (16ã-1





































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\section*{Levised by loberit de sombenitz．}

\section*{}

Moray Fitth：an indet of the Gorman（bean，on the
 amb wrachine inland for about b：miles，to the mouth of the diver láataly．

\section*{Moray，dames Nteart，Fand of ：Sue Mrrray．}

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 duran lar the liherals：then marchad into Siavador and Ginatemala，took the capital of the latter state（ame of cen－


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In the U．S．amy the averare momor contantly wher 1,000 of mean st retieth is atmat th fith the whit．ntid a litth． more for the conswd truns．These tixumes polate whly to
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With these may he compured the figure for the sidforse amone members of friondy suritios in bodand，as given in


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