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TRANSACTIONS

OF THE

AMERICAN

PHILOLOGICAL ASSOCIATION.

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CONTENTS.

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I.—A Contribution to Infantile Linguistic.

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In some recent works on this subject the rule has been adopted, in making up the child's vocabulary at a certain age, to admit only such words as were actually used during the last month of the period covered, and to form the list by writing each word down when it was used. I have not thought it best to place myself under such restrictions. What we want is the list of words of which the child has command; and if we are sure that it has command of a certain word, such word should not be excluded for the mere reason that the child did not happen to use it during an arbitrarily limited space of time. We could not, for instance, expect a child to happen to use the word "snow" between the 2d of May and the 2d of June.

In the present case, therefore, the following plan has been pursued: When the child was just two years old, aided by its mother I examined the words, one by one, in a dictionary, and marked such words as we were sure the child not only understood, but had spontaneously used, and still could use;

and whenever there was the slightest doubt, we drew the child into conversation with a view to eliciting the word in question, being careful not to let it hear the word from us; and if we failed to elicit the word at once, we rejected it. In case of a concrete object, I thought it admissible to point at the object and ask, "What is that?" Sometimes the question was settled in regard to verbs also in a somewhat similar manner. For instance, it being a question whether the child had full use of a certain verb, I asked: "What did the kids do this morning?" Answer: "They ran and *skipped* about."

The vocabulary, then, which I give is that of a little girl, and contains the words, whether correctly pronounced or not, which she had full command of when she was just two years old.

In the works above alluded to, a classification of words according to their initial letters was made, in order to show that *ease of pronunciation*, especially of those letters, was an important factor in the formation of a vocabulary on the part of a child. But that classification is unscientific. To omit other faults, it is illogical and deceptive to follow the mere written characters of the English language. The list of words, for instance, beginning with *c* contains words whose initial sound is *k*, as 'cat,' or *s*, as 'city,' or *tsh* (nearly), as 'chair.' So words seeming to begin with *k* really begin with *n*, as 'know,' 'knife.' The same is true of some words seeming to begin with *g;* and the *g* itself represents the *g* sound proper and also the sound of *j*, and some other letters exhibit analogous facts. In order, therefore, to arrive at any reliable conclusion, the classification should be based upon the initial sounds, and not upon the characters representing the sounds. In the present instance, however, no such classification has been made, for a reason which will be stated.

Although it is not my purpose to enter into any scientific discussion of the development of language in infants, but merely to contribute some material for the use of others, still I shall make a few general statements, some of which are rather of the nature of induction than of observation.

1. We should expect *a priori* that a child's vocabulary

would be affected by three considerations: (*a*) ease or diffi-
culty of utterance, i. e., *form;* (*b*) simplicity of the idea,
i. e., *meaning;* (*c*) frequency of use, i. e., *familiarity.* As to
the first of these—the form of the word—although it had
some influence before the child was one year old, when she
was two, it had ceased to have any effect whatever. She had,
by that time, adopted certain substitutes for letters which she
could not pronounce, and words containing these letters she
employed as freely as if the substitutes had been the correct
sounds. The other two influences—meaning and familiarity
—are closely connected, the one leading to the other; that is,
the simplest ideas are most frequently expressed. But in
many instances, when two words are synonymous, one of
them will be used exclusively by a child, because of the rarer
employment of the other by persons speaking in the child's
presence. Compare, for instance, *sparkle* and *scintillate.*
And further, it may happen that some local circumstance
renders a word familiar, which is generally unknown to
children; as, for example, "*crinoid*"—a word which this
child uses every day to designate sections of fossil crinoid
stems which abound in neighboring gravel walks.

One phase of the *simplicity* of ideas should, perhaps, be
treated independently as a fourth influence. The same idea
may be conceived in a more or a less patent shape. An adjec-
tive, for instance, is more readily conceived than an adverb,
and a substantive than an adjective. In the case under dis-
cussion nouns were most readily seized, then, in order, verbs,
adjectives, adverbs, pronouns. Prepositions and conjunctions
she began to employ early, but acquired them slowly. Inter
jections are of two kinds, natural and conventional. The
former, of course, she used to some extent from the beginning
("*wah*" for instance); the latter came rather late.

2. I proceed, in the second place, to give a brief history
of the child's linguistic efforts, and I shall have facts to record
which may surprise some; but in proportion as they are, or
seem, unusual, just in that proportion are they important; for
we are always in danger of generalizing from too limited
observation, and then carrying with us through life a sort of

tant pis pour les faits confidence in our theories. A certain scientist in Virginia, attempting to illustrate a beautiful uniformity or periodicity of the annual rainfall, omitted the great rain of September 1870 as being "unprecedented and *abnormal*"; and one of our leading physicists once seemed inclined to the belief that I was mistaken, when I told him that in my dreams I could call up scenes and perform experiments, knowing that it was a dream. His theory of dreaming rendered this impossible. If, then, I state that a child at a certain period of its life called *cat* "*kă*," and *dog*, "*og*," from inability to pronounce *t* and *d* while it could pronounce *k* and *g*, let no man say that this is impossible, or even that it is "unprecedented and abnormal," but let him revise his theory.

In the child's linguistic efforts I observed four periods.

(a.)   When about four (4) months old she began a curious and amusing mimicry of conversation in which she so closely imitated the ordinary cadences, that persons in an adjacent room would mistake it for actual conversation. The articulation, however, was indistinct, and the vowel sounds obscure, and no attempt at separate words, whether real or imaginary, was made until she was six (6) months old, when she articulated most syllables distinctly without any apparent effort.

(b.)   When she was eight (8) months old, it was discovered that she knew *by name* every one in the house, as well as most of the objects in her room, and the parts of the body, especially of the face. She also understood simple sentences, such as, 'Where is the fire?' 'Where is the baby in the glass?'—to which she would reply by pointing. It was by similar questions that we discovered her knowledge of the names of persons and things. But some things she *called* by name; so that during this period (from 8 months on, for a few months) she used actual words as words, i. e., as representing ideas, pronouncing some final consonants indistinctly, but initial consonants all clearly *except the linguals, th, t, d, n, l.*

(c.)   But she now began a mimicry of language again, this time using real or imaginary words without reference to signification; and in her eleventh (11) month, she learned

or happened to begin, to pronounce her linguals. She would imitate with accuracy any sound given her, and had a special preference for the nasal palatal *ng, initial* as well as final; and she could reproduce at once syllables beginning and ending with this sound, as *ngang, ngeng, nging, ngüng,* etc. Of course it made no difference to her whether the vowel sound existed or not, in English or any other language. But about this time it was observed that an obscurity of vowel sounds had begun again; but her consonants seemed perfect, and she had such a fondness for mere imitation of words and sentences, that at one year of age she ceased to use words as words except to a very limited extent, and when she did so, her facility of utterance seemed to have been lost; so that she watched the mouths of others closely when they were talking, and labored painfully after the sounds. This was evidently the result of a conscious effort taking the place of what might be called a natural instinct, and her experience in this particular seems to prove that a child's failure to produce certain sounds, as *k*, for instance, is not due to any organic defect or inability, but to want of knowledge how to go about it.

(d.) Finally she began by degrees to drop her mimicry of language, and, at first very slowly, acquired real words *with the ordinary infant pronunciation*, showing a preference for labials (*p, b, m*) and linguals (*t, d, n,*—not *l*) but presently she substituted easy sounds for difficult ones, or rather obvious sounds for hidden ones, and her acquisition of words was then, I fear, almost " unprecedented and abnormal."

3. Her pronunciation during the fourth period was tolerably uniform. The following table presents it as it was from eighteen (18) months to two (2) years:

Initial.	Medial and Final.		Initial.	Medial and Final.		Initial.	Medial and Final.
M	m	m	N	n	n	NG	—	ng
B	b	b	D	d	d	G	d	g
P	p	p	T	t	t	K	t	k
V	b	b	THis	d	d	J	d	d
F	w	p	THin	t	t	CH	t	t
W	w	—	Z	d	d? z?	SH	t	t
			S	t	t	H	h	—
			L	*sil.*	l	Y	*sil.*	—
			R	w	{ med. w / fin. obscure }			

COMBINATIONS.

	Initial.		Initial.		Initial.
BL	b	TR	t	SN	n
BR	b	THR	t	SL	t (for s)
PL	p	SP	p	GL	d
PR	p	ST	t	GR	w
FL	w	SK	t	KW	w
FR	w	SW	w	KL	t
DR	d	SM	m	KR	w
				HW (wh)	hw (h weak)

(In these tables the letters represent sounds, not the mere characters with which words are spelled.) Final combinations are omitted. They exhibited phenomena analogous to those of initial combinations. In reference to the latter, it is interesting to observe that when a letter which she could pronounce correctly preceded another, she retained the first; but if both were represented by substitutes, she retained the second. If, however, the second was one which she made silent, then she pronounced the first. Thus *tr = t, kr = w* (for *r*), *kl = t* (for *k, l* being one of her silent letters). Her inability to pronounce initial *l* was very striking, as it forced her to change the pronunciation of her name Lulie (which she had called " Lülü ") to " Uelü," which ultimately became " Ullie " (*u* in *tub*). Before she was two years old, however, she learned how to pronounce *l* in all its positions, but did not put it into practical use until later.

She has always had a tendency to carry the accent towards the end of the word if there is a long syllable or a secondary accent there, as " crinofd," " rhubárb," " mantelpiéce," and even in some phrases, as " open ít," which, however, proved to be to her a *word;* for she would say " Open ít the door."

4. I was never certain that she invented words. On one occasion, when she was about eighteen (18) months old, a fly flew all about her plate when she was eating, and she exclaimed, " The old fly went *wiggely-waggely*." The expression, *as far as we knew or could ascertain*, was original with her.

The use of words with her was, of course, not in all cases the same as with grown persons. She would, for example, say " Good-bye " to anything, no matter how unpleasant it

was, when she left it.   Until her eighteenth (18) month she
employed "No" for both "Yes" and "No," and then she
substituted "Mam" (from "Yes, ma'am") for "No" in the
sense of "Yes," and retained it till she was two (2) years
old, using "Yes" only when it was specially suggested to her.

The word "gentleman" she employed to designate a negro
man or boy, using "man" for a white man.   Her nurse was
colored.

5.   Her Syntax at the end of two (2) years was very good,
including the management of several forms of the subordinate
sentence.   The character of these sentences is sufficiently
indicated by the conjunctions and adverbs in the appended
vocabulary.

The first sentence she ever constructed was : "Julia broke
the doll"; but she arranged the words in any possible order,
frequently repeating the sentence, as : "Julia broke doll,"
"Julia doll broke," "Broke doll Julia," etc.   This was when
she was sixteen (16) months old ; and she already knew her
verbs so well that she said "broke" (under the form *boke*),
and not "break" or "breakt."

6.   In preparing the vocabulary, I have adopted the alpha-
betical order according to the present English alphabet,
merely because it was most convenient to do so, as I used a
dictionary.   The only attempt at classification is the distribu-
tion, under each letter, according to parts of speech.   The
tabular view at the end will serve for comparison with similar
tables that have been made out by others.

It was not in every case easy to decide whether a word
should be put down or not.   My general method has already
been explained.   I have not included proper names, nor
words (amounting to hundreds) familiar to her only in
nursery rhymes, of which she knows a considerable volume.
The names of many animals and other objects known to her
only in pictures or as toys, are excluded ; but I have not, in
every instance, felt myself bound to follow the rule of putting
down the names only of such objects as she has seen.   For
instance, she has never seen a lion, or an angel ; but she has
derived from pictures and toys so definite and vivid a concep-

tion of these, that they must be recognized as intellectual and linguistic acquisitions, whether her conception of them agrees with ours or not.   So, I have included things learned in this way, in cases where the child frequently speaks of them as real objects, apart from their pictures or images.

She knows also many numerals, names of days of the week, etc., which I have omitted, as I could not be certain that she had any definite idea associated with them.

During the six weeks that have elapsed since she was two years old, her improvement in pronunciation, her progress in construction, and her acquisition of new words, have been very rapid ; but this does not belong to the present investigation.

VOCABULARY.

A.

n. : ache, acorn, angel, animal, ankle, ant, ape, apple, apron, arm, armhole, ashes, aunt, axe.

v. : ache, allow, am (was, been).

adj. : afraid, all, an (a), another, any, asleep, awake.

adv. : again, ago, all, almost, along, as, away, awhile.

prep. : about, above, across, after, against, around, at.

c. : and.

i., etc. : aha.

B.

n. : baboon, baby, back, bag, baker, ball, balloon, band (of musicians), barber, barrel, basin, basket, bat, bath, bead, bean, bear, beard, bed, bee, beef, beefsteak, bell, belly, bellyache, bell, bench, berry, bib, bird, biscuit, bishop (a mere name), bit, blackbird, blanket, blaze, block, blood, board, boat, body, bone, bonnet, book, bookcase, boot, bottle, bottom, bow (on a dress), bow (with the head), bowl, box, boy, bracelet, bread, breakfast, breast, breeches, brick, bridge, bridle, broom, brother, brow, brush, bubble, bucket, buckle, bud, bug, buggy, bull, bump, bundle, bureau, burn.

v. : baptize, bark, bathe, bawl, be, beat, been, beg, begin, behave, believe, bellow, belong, bend (bent), bite (bit, etc.), blaze, bleed, blow (blew), bother, bounce, bow, break (broke, etc.), bridle, bring (brought), brush, build (built), burn, buy (bought).

adj. : bad, bare, barefoot, best, better, big, black, blind, blue, both, brown, busy.

adv. : back, backwards.

prep. : before, behind, but, by.

c. : because.

i., etc. : baa (of a sheep), bang (of a gun).

C.

n. : cabbage, cage, cake, calf, camel, can, candy, cane, cap, cape, car, card, carpet, carriage, cart, cat, chain, chalk, chamber, cheek, chicken, child (children), chimney, chin, chip, christmas, church, churn, cigar, circle, circus, cistern, city; cloak, clock, cloth, clothes, cloud, clown, coal, coat, cock-roach, colic, cold, collar, color, comb, company, cook, corset, couch, cough, counterpane, cow, crack, cracker (bread), cradle, cranberry, crinoid (fossils in gravel walk), crow, crowd, crumb, cuff, cup, curl, curtain, custard.

v. : call, can (could), cannot, care, carry, catch (caught), chew, choke, clap, climb, comb, come (came), cook, count, crack, crawl, cross, crow, cry, curl, cut.

adj. : clean, cold, cool, crooked, cross, curly.

adv. : close.

D.

n. : daisy, dark, darling, daughter, day, dear, deer, desk, dime, dimple, dining-room, dinner, dirt, dish, doctor, dog, dollar, door, dot, drawer, drawers, dream, dress, drum, duck, dust.

v. : dabble, dance, dangle, die, dig, dip, do (does, did, done), draw (sketch), dream, dress, drink, drive (drove), drop, dry.

adj. : damp, dead, dear, dirty, dry.

adv. : directly, down.

prep. : down.

i., etc. : ding-dong.

E.

n. : eagle, ear, earring, easel, eel, egg, elbow, end, enough, eye, eyebrow.

v. : eat (ate), expect.

adj. : easy, enough, every.

adv. : eas(il)y, enough, ever.

F.

n. : face, fan, father, feather, fellow, fence, fiddle, finger, fire, fireplace, fish, fist, flag, flea, floor, flower, flute, fly, folks, foot (feet), forehead, fork, fox, frog, frost, frown, fuss.

v. : fall (fell), fan, feed (fed), feel, fetch, fight, fill, find (found), fit, fix, fly (flew), fold, follow, forget (forgot), fret, frown.

adj. : fat, fine, fish, first rate, fresh, front (e. g., front door).

adv. : far, fast, first, (in) front.

prep. : for, from.

G.

n. : garden, gaiter, gate, gentleman (i. e., a negro man or boy), giraffe, girl, glass, glove, gnat, God, gold, goose (geese), gourd, gown, grandma, grandpa, grape, grass, grasshopper, gravy, grease, ground, gun, gymnasium.

v. : gallop, get (got), give (gave), go (went, gone), grin, grow, growl, guess.

adj. : glad, good, great (in "great big"), green.

i., etc. : good-by.

3

H.

n.:   hair, hair-brush, hair-pin, half, hall, hammer, hand, handkerchief, handle, bang-nail, hash, haste (with "make"), hat, hay, head, heap, heart, hearth, heaven, heel, hen, hiccough, hill, hoe, hole, hollow, home, hood, hook, hoop, hooping-cough, horn, horse, house.

v.:   hand, hang (hung), hatch, hate, haul, have (has, had), hear (heard), help, hiccough, hide (hid), hit, hold, hollo, hop, howl, hug, hunt (look for), hurry, hurt, hush.

adj.:   happy, hard, heavy, high, horrid, hot.

adv.:   here, home, how.

pron.:   he, her, her (poss.), hers, him, his.

i., etc.:   halloo.

I.

n.:   ice, ink, iron (i. e., flatiron).

v.:   is, itch.

pron.:   I, it.

prep.:   in, into.

c.:   if.

J.

n.:   jaw, jay, jelly, joke.

v.:   joke, jump.

K.

n.:   kettle, key, kid, kiss, kitchen, kite, kitten, knee, knife, knob, knot.

v.:   keep (kept), kick, kill, kindle, kiss, kneel, knit, know.

L.

n.:   lace, ladder, lady, lamb, lamp, lap, larkspur, leaf, leg, leggin, lemon, lesson, letter (2), light, lilac, line (on paper), lion, lip, little, load, lock, log, lump, lunch.

v.:   laugh, lay (laid), leave (left), lend, let, lick, lie (lay), lift, like, listen, live, lock, look, lose (lost), love.

adj.:   lame, last, left, light, like, little, long, loose, loud, low.

adv.:   like.

M.

n.:   ma'am (madam), mama, man, mane, mantel-piece, marble, mark, market, match, matter, meat, medicine, middle, minute, Miss, mitten, money, monkey, moon, more, morning, mother, mountain, mouse (mice), mouth, much, mud, mug, mule, music, mustache, mutton.

v.:   make (made), march, marks, mash, may (might), mean, meet (met), mend, mind, move, must.

adj.:   mad, many, mean, more, muddy.

adv.:   mighty (— very), more, much.

pron.:   me, my, mine, myself.

N.

n.:   nail (2), name, neck, needle, negro, nest, Nestlé (prepared food), net, netting, nickel (coin), night, night-gown, nobody, noise, nose, nothing.

v. : nail, nod.
adj. : naked, nasty, naughty, new, next, nice, no.
adv. : near, no, not, now.

O.

n. : oatmeal, orange, overcoat, owl.
v. : open, ought.
adj. : old, one, open, other, own.
adv. : off, on, out, over.
pron. : our, ours.
prep. : of, off, on, over.
c. : or.
i. : oh.

P.

n. : pail, paint, palm (of the hand), pan, pansy, pants, papa, paper, parlor, parrot, party (at play), path, patch, patience, pea, peach, pebble, pen, pencil, people, pepper, pet, petticoat, picture, piece, pig, pile, pillow, pin, pin-cushion, pipe, pistol, place, plait, plate, plum, pocket, point, poker, pony, porch, pot, potato, powder, prune, puff, pull, pulse (of the arteries), pump, pup, puppy, puss, pussy.
v. : paddle, paint, pat, pay, peck, peel, peep, pet, pick, pinch, pink, play, please, point, pop, pour, pout, preach, pump, push, put.
adj. : pink, poor, precious, pretty.
adv. : presently.

Q.

v. : quit.
adj. : quick.
adv. : quick.
i., etc. : quack (of a duck).

R.

n. : rabbit, rag, rail, railroad, rain, rainbow, rat, reading (print), rest (the), rhubarb, ribbon, rice, ring, road, robin, rock, room, rooster, rope, rose, row, rug.
v. : raise, rattle, read (rĕad), reckon, rest, ride (rode), ring (rung), rip, rise (rose), rock, roll, rub, rumple, run (ran).
adj. : ready, red, right (2), ripe, round.
adv. : right, 'round.
prep. : 'round.

S.

n. : sack, saddle, salt, sand, sash, saucer, school, scissors, seam, seat, seed, see-saw, shade, shadow, shawl, sheep, sheet, shelf, shirt, shoe, shoulder, shovel, side, sir, sister, skin, skirt, sky, slate, sleeve, sleigh, slipper, smoke, snake, snout, snow, soap, sock, sofa, soldier, somebody, somerset, something, son, song, soot, sore, soup, spark, spider, spit, splinter, sponge, spool, spoon, spot, spring, squirrel, stable, stairs, star, steam, steam-car, stick, stink, stocking, stool, stopper, store, story, stove, strap, street,

string, student, study, suds, sugar, sun, sunlight, sunshine, supper, switch.

v. :   say (said), scare, scold, scrape,' scratch, scream, see (saw, seen), see-saw, send (sent), set, sew, shake, shall, shave, shine, shoot, show, shut, sing (sung), sit (sat), skip (leap), slap, sleep, slide, smell, smile, snap (the finger), sneeze, snow, soil, speak, spill, spit, splash, spoil, squat, squeal, squeeze, stand, stare, stay, step, sting (stung), stir, stoop, stop, strike (struck), suck, swallow, sweep (swept), swim, swing (swung).

adj. :   sharp, short, sick, sleepy, smart, small, smooth, soft, some, sore, still, straight, sweet.

adv. :   slow (ly), so (2).

pron. :   she.

T.

n. :   table, tack, tea, tear, thing, thread, throat, thumb, thunder, tie, time, toddy, toe, tongs, tongue, tooth (teeth), toothache, top, town, toy, train (R. R.), trap, trash, tree, trouble, trough, trunk, tuck, turtle.

v. :   take (took), talk, tear (tore, torn), tell (told), think (thought), throw (threw), thunder, tie, touch, travel, treat, trot, try, tumble, turn.

adj. :   the, thirsty, tight, tired, two.

adv. :   then, there, to-day, together, to-morrow, to-night, too.

pron. :   that, their, theirs, them, these, they, this, those.

prep. :   through, to.

c. :   till.

. U.

n. :   uncle, university (grounds and buildings).

v. :   unbutton, undress, untie.

adj. :   ugly.

adv. :   up.

pron. :   us.

prep. :   under, up, upon.

V.

n. :   vase, veil.

v. :   visit, very.

adv. :   very.

W.

n. :   wagon, waist, waiter, wall, wardrobe, watch, water, way, well, wheel, whip, whiskey, whistle, wind, window, wing, woman, wood, woodpecker, woods, word, work, world (in the), worm, writing.

v. :   waggle, wait, wake, walk, wallow, want, was, wash, watch, wear (wore), went, whine, whip, whisper, whistle, will (would), wind (wound), wink, wish, work, wrap, write.

adj. :   warm, wee, wet, white, whole, wide, wrong.

adv. :   well, when, where, while, why.

pron. :   we, what, which (2), who (2), whose (interr.).

prep. :   with, without.

Y.

n.: yard.
adj.: yellow.
adv.: yes.
pron.: you, your, yours, yourself.

	A	B	C	D	E	F	G	H	I	J	K	L	M
Nouns, ...	14	76	67	26	11	27	24	34	3	4	11	25	32
Verbs, ...	3	28	21	14	2	16	8	20	2	2	8	15	11
Adjectives, ...	7	12	6	5	3	6	4	6	...	...	...	10	5
Adverbs, ...	8	2	1	2	3	4	...	3	...	...	...	1	3
Pronouns, ...	...	...	...	...	...	...	...	6	2	...	...	...	4
Prepositions, ...	7	4	...	1	...	2	...	...	2	...	...	...	...
Conjunctions, . . .	1	1	...	...	...	...	...	...	1	...	...	...	...
Interjections, etc., . . .	1	2	...	1	...	...	1	1	...	...	...	...	...
Total, ...	41	125	95	49	19	55	37	70	10	6	19	51	55

	N	O	P	Q	R	S	T	U	V	W	Y	Total.
Nouns, ...	17	4	53	...	22	83	29	2	2	25	1	592
Verbs, ...	2	2	21	1	14	52	15	3	1	22	...	283
Adjectives, ...	7	5	4	1	6	13	5	1	...	7	1	114
Adverbs, ...	4	4	1	1	2	2	7	1	1	5	1	56
Pronouns, ...	...	2	...	...	...	1	8	1	...	7	4	35
Prepositions, . . .	...	4	...	...	1	...	2	3	...	2	...	28
Conjunctions, . . .	...	1	...	...	...	...	1	...	...	...	...	5
Interjections, etc., . .	...	1	...	1	...	...	...	...	...	...	...	8
Total, ...	30	23	79	4	45	151	67	11	4	68	7	1,121

In this table irregular verbal and nominal forms are not counted as separate words, except in case of *defective* verbs, as *am, was, been;* but the different pronominal forms are counted, and pronominal adjectives are treated as pronouns.

It will be observed that s begins the largest number, and c the next largest save B; and yet the child cannot utter any initial sound (*s, sh, ch, k*) represented by s or by c.

II.—*The Hebrew Verb-termination* un.

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Grammars have been, til within a recent period, littl more than collections of the fenomena of languages at some particular point in their development, the point chosen being usually that of the greatest literary finish, the classic period; forms and uses not occurring in this period are either ignored or dismist with the vague statement that they are archaic. Now, however, a ful grammatical treatment is considered to include a history of every form, from its genesis, thru its changes and its varieties of use, up to its extinction or the latest discoverabl shape that it assumes. The combination of these several histories gives us a picture of the formal movement of the language—the formal part of its inward life—and thus furnishes important data for the critical treatment of literary documents. As a contribution to this department of Hebrew grammar, it is proposed here to examine the history of the verbal personal termination in *n*.

Before, however, we can consult the old Hebrew literary documents in order to trace the history of this form, there is a preliminary question that must be anserd, namely, whether we now possess the literature in the shape in which it left the hands of the authors, that is, whether it faithfully exhibits the usage of various times, or has been so workt over at some period or periods that certain original differences hav been wiped out, and it now shows only the usage of the copyists or editors thru whose hands it past. Unfortunately the data for determining this question ar few, but there is stil something that may aid us in forming an opinion. In the first place, it is improbabl that any important changes were made in the Old Testament text after the Canon was substantially made up, say about a century after the begining of our era (there were canonical differences of opinion and discussions after this, but they related to one or two books only). The

mechanical reverence for the text, which effectually preserved
it from alterations, must be supposed to hav arisen as early
as this; the Masoretic labors did not touch the literary form.
We may infer this both from what we know of the work of
the Masoretes (which was purely statistical and explanatory),
and from the statements we hav concerning the pre-talmudic
state of the text.   We learn from the Talmud (the passages
ar given in Geiger's *Urschrift der Bibel*, third book) that the
early manuscripts (which probably belongd to the begining of
our era) showed certain differences in letters and words (the
insertion or omission of the *He* local, the insertion or omission
of connecting *Waw*, the writing of the third personal pronoun
with *Waw* or *Yod*) and in a few cases showed different words.
That is, the text, thru carelessness of transcribers or possibly
by intentional changes from religious motives, was to a certain
extent in an undefined condition up to the time when critical
attention began to be bestowed on it, namely, in the second
or third century; but after that time we may be tolerably
sure from what we know of the feeling of the age that it
sufferd only from the ordinary accidents of copying.   Further,
it does not appear that there was recasting or other inten-
tional alteration of the text in the immediately preceding
period, from the latest canonical writing, about the middle of
the second century B. C., to the second century of our era.
The examples given in the Talmud may all be referred to the
ordinary alterations of scribes, or else to a religious motiv;
there is no sign of any literary or grammatical remodeling.
For any such changes we must therefore look to an earlier
period, and inquire whether authors and editors took such
liberties with their materials as to alter their grammatical
shape on literary grounds.   In the next period, which extends
from the second to the sixth century B. C. (in which occurred
the compilation of the historical books, and the recensions of
earlier poems) we hav some evidence of editorial changes in
respect to the termination *un*.   In the same passage Kings
(I K. viii, 38) inserts the *n*, and Chronicles (II Chr. vi, 29)
omits it; the psalm in II Sam. xxii (ver. 39), similarly has
un, while the later recension (Ps. xviii, 39) drops the *n*, tho

it does not use the same verb. In the passage in Kings and Chronicles referred to, whether the latter has copied the former, or, as is more probable, both quoted from an older document, the omission of the *n* shows the change of usage that had taken place between the sixth century and the fourth. But the further question arises whether both may not hav altered a good many cases of the occurrence of the *n*, so that the original document would show a greater frequency of its use than appears in the book of Kings. The use, as it appears in the present books, seems to be arbitrary—the *n* is inserted in one verse and omitted in the same statement in the next, or it occurs in one word and not in another in the same verse, apparently without reason. There is nothing improbable in this supposition of omissions, by the late compilations, of obsolescent forms found in their authorities; and it is strengthened in this case by the fact that the *un* is so much less frequent in Chronicles than in Kings (there being an interval of two or three centuries between the two books). Supposing this to be a fair conclusion, there would result the critical canon that, the earlier the compilation or editing of a book, the more likely is the use of the *un* in the original documents to be preserved—to which we shal return presently. As to the seemingly arbitrary occurrence of the termination, this is a point on which we hav to speak with caution, unless we can determin the considerations that guided the original writers in its use; but, however this may be, the arbitrariness is not confined to any one book, but is found in al, as wil appear below, so that the relativ frequency of occurrence in the various books is not affected thereby. It appears, then, that signs of editorial alterations do exist in the period from the sixth to the second century B. C., and that such alterations seem to be fewer the further back we go. Of the next preceding period, including the three or four centuries prior to the exile, from which we hav received no certainly known compilations or recensions, but only independent works, it can only be said that writers of that time, whether in the composition of original works, or in the compilation of prose narratives or books of poetry, would probably freely employ

their own usage, and not scrupl to change expressions and forms for the sake of clearness or eufony; so that the same critical canon applics to this as to the succeeding period.

We may sum up by saying that textual changes of the sort we are considering were not made later than the second century B. C., and that they diminish in number the further back we go—that therefore in the books which underwent editorial revision (the period of such revisory work, so far as we ar abl to trace it, begining with the exile, and ending in the second century) we hav only or chiefly the usage of this time, from which, however, we may be abl to reason back to an earlier period. The Jewish tradition points to a revision, after the exile, of all the earlier books, and there is so much in the literature itself to favor this view that it is now generally accepted by students of the Hebrew text. If this be considerd to be correct in the main, then our existing Old Testament literature gives in general the grammatical usage of the period from the sixth century to the second, either in original writings or in recensions of earlier texts, and the extent of the changes made in the editing must be judged of by an examination of the fenomena in each book separately.

Coming now to our termination *un*, let us first look at the facts of its use in the Old Testament.* The following is a list of its occurrences: *Genesis:* iii. 3, 4; xviii. 28, 29, 30, 31, 32; xxxii. 5, 20; xliii. 32; xliv. 1, 23 (12 occurrences). *Exodus:* i. 22; iii. 12, 21; iv. 9, 15; v. 7; ix. 28, 29, 30; xi. 7; xiv. 14; xv. 14; xvii. 2 (twice); xviii. 20, 26; xx. 12, 23.; xxi. 18, 35; xxii. 8, 21, 24, 30 (twice); xxxiv. 13 (thrice) (28). *Numbers:* xi. 19; xvi. 28, 29; xxxii. 7, 15, 20, 23 (7). *Deuteronomy:* i. 17 (twice), 18, 22, 29 (twice); ii. 25; iv. 6, 10 (twice), 11 (twice), 16, 26 (thrice), 28 (four times); v. 16, 20, 30 (twice); vi. 2, 3, 14, 17; vii. 5 (twice), 12, 25; viii. 1 (twice), 3 (Perfect), 13, 16 (Perfect), 19, 20 (twice); xi. 22; xii. 1, 2, 3 (twice), 4, 8; xiii. 5, 12; xvii. 13, 16; xviii. 1, 15; xxix. 8; xxx. 18 (twice); xxxi. 29;

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* The principal discussions of this form ar by König, *Alttestament-liche Studien*, II. Heft, pp. 165–192, and Böttcher, *Lehrbuch der Hebräischen Sprache*, II. pp. 135–137.

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xxxiii. 11 (58). *Joshua:* ii. 8; iii. 7, 10, 31; iv 6, 21;
xvii. 10; xxiv. 15, 27 (9). *Judges:* ii. 2; vi. 31 (twice);
vii. 17; viii. 1; xi. 18; xv. 7, 12 (8). *First Samuel:* ii. 15,
16, 22 (twice), 23; ix. 13 (twice); xi. 9 (9). *Second
Samuel:* xxii. 39 (1). *First Kings:* viii. 35, 38, 42, 43; ix.
6; xii. 24; xix. 2 (twice): xx. 10 (9). *Second Kings:* vi.
19; xi. 5; xvii. 37; xviii. 22; xix. 6, 10 (6). *Isaiah:* vii.
25; viii. 12; xiii. 8 (twice); xvii. 12 (twice), 13; xxi. 12;
xxii. 14; xxvi. 11, 16 (Perfect), 19; xxix. 21; xxx. 15, 16;
xxxi. 3, 7; xxxiii. 7; xxxv. 10; xxxvii. 6, 10; xl. 18; xli.
5; xlix. 11, 26; l. 11; li. 5, 6, 11 (twice); lii. 12; lv. 12;
lviii. 2 (thrice); lx. 7, 10 (37). *Jeremiah:* ii. 24 (suffix);
v. 22 (suffix); xvii. 24; xxi. 3; xxxiii. 24; xlii. 15; xliv. 28
(7). *Ezekiel:* xxxii. 6; xxxiv. 18; xliv. 8 (3). *Hosea:* v.
15; ix. 16 (twice); xi. 2; xiii. 2 (5). *Joel:* ii. 4, 5, 7
(thrice), 8 (twice), 9; iii. 1 (9). *Amos:* vi. 3, 12 (2).
Micah: ii. 6, 8, 9; iv. 3; v. 2 (5). *Nahum:* i. 9; ii. 5 (2).
Habakkuk: iii. 7 (1). *Zephaniah:* ii. 7 (twice); iii. 10 (3).
Zechariah: vi. 15; x. 2: xi. 5 (3). *Malachi:* i. 8 (1).
Psalms: iv. 3; v. 10; xi. 2, 3; xii. 9; xxxv. 11, 20; xxxvi.
8, 9; xxxvii. 2, 9; xxxix. 7; lviii. 2, 3 (twice); lix. 5, 8,
16; lx. 7; lxiii. 4 (suffix); lxv. 12; lxviii. 13 (twice), 14,
17; lxxiv. 6; lxxviii. 44; lxxxii. 7; lxxxiii. 3; lxxxix. 16,
17, 31; xci. 12 (suffix); xcii. 15; xcv. 11; civ. 7 (twice), 9
(twice), 10, 22 (twice), 26, 27, 28 (twice), 29 (thrice), 30;
cviii. 7; cix. 25; cxv. 6, 7; cxxxix. 18 (55). *Proverbs:* i.
28 (thrice, suffix); ii. 19; viii. 17; x. 32 (6). *Job:* iv. 4;
ix. 6; xiii. 5, 8 (twice), 10; xv. 12; xvi. 10; xviii. 2; xix.
2 (twice), 23, 24, 29; xxi. 11; xxiv. 24; xxix. 24; xxx. 17;
xxxi. 10, 38; xxxii. 11; xxxvi. 8, 10 (24). *Ruth:* ii. 9
(twice) (2). *Second Chronicles:* vi. 26; vii. 19; xix. 9, 10
(4). In this list the Imperfect is to be understood except
where the Perfect is named. Cases where suffixes ar attacht
ar included, but doubtful readings (as Zech. xiv. 6) ar
omitted.

It will be seen from the above list that the books of Levit-
icus, Obadiah, Jonah, Haggai, Song of Songs, Lamentations,
Ecclesiastes, Esther, Daniel (the Hebrew part), Ezra (Heb.),

and Nehemiah do not contain this ending at all. In the others the order of relativ frequency (taking the number of occurrences in connection with the number of pages) is: Joel, Deuteronomy, Zephaniah, Nahum, Micah, Job, Psalms, Isaiah, Exodus, Ruth, Hosea, Zechariah, Habakkuk, Malachi, Amos, Joshua, Proverbs, Judges, Genesis, Kings, Numbers, Samuel, Jeremiah, Ezekiel, Chronicles. The order of the historical books is: Exodus, Ruth, Joshua, Judges, Genesis, Kings, Numbers, Samuel, Chronicles; that of the poetical books: Job, Psalms, Proverbs; and that of the prophets: Joel, Zephaniah, Nahum, Micah, Isaiah, Hosea, Zechariah, Habakkuk, Malachi, Amos, Jeremiah, Ezekiel. In the two parts of Isaiah, chs. i–xxxv and xl–lxvi, the frequency is about the same; the first part of Zechariah (post-exilian), chs. i–viii, if reckoned separately, would stand next after Amos among the prophets, and after Kings in the general list; the second part, chs. ix–xi (which may be dated, on internal historical grounds, about B. C. 750), falls next to Micah.

If we take into account the *n*-ending of the second person singular feminin of the Imperfect (*in*) very littl change wil be made in the above order. It occurs once in First Samuel (i. 14), once in the second part of Isaiah (xlv. 10), once in Jeremiah (xxxi. 22), and four times in Ruth (ii. 8, 21; iii. 4, 18), and if reckoned with the others would make Ruth second in the list, put Samuel before Numbers, and leave the others unchanged.

Before proceeding to examin the use of the *n*-ending, let us look for a moment at the origin and history of the form, which is the common one in Aramaic, and frequent in Assyrian. It is obviously an old Semitic flexion, and appears most fully with a vowel attacht, which is usually *a*, as in Arabic *una*, whence probably the Aramaic *uno* before suffixes, but sometimes *u*, as in Assyrian *unu;* before suffixes Aramaic shows the full form *uno* in the Perfect also, whence we may infer an original *una* for both Perfect and Imperfect. That this is the same with the ful plural-ending of the noun (Arabic *una*) seems very probabl; yet certain questions arise in connection with this supposition that ar not easy of solution:

why, in that case, do Hebrew and Aramaic hav *u* (before the
n or *m*) in the masculin verb-plural, while in the noun they
hav *i?* and Assyrian in like manner commonly *i* or *e?* how is
it that some dialects, as Hebrew, show *n* in the verb and *m* in
the noun? and what is the origin and primitiv form of the
final vowel? To the first of these it may be anserd that,
while the noun at first distinguisht its plural forms in *ū* and
ī, the verb-noun would naturally employ the *u*-form, which
was associated with the subject—that this soon petrified into
the verb proper. and in Hebrew being in an open syllabl
suffered no change (while in the second person plural the *tum*
became *tem*)—but in the noun the language, finding that it
could do with one plural ending, chose the *i* and dropt the *u*
in accordance with the principl that so often prefers the
objectiv to the subjectiv (as, for example, in English, "it is
me" has become almost a recognized construction). The
presence of the *n* in the verb is harder to understand. The
m or *n* in the verb seems to be the mimation or nunation of
the noun, but the usage of the dialects is curiously varied—
Arabic and Aramaic hav *n* throughout, while Assyrian has *m*
in the singular of the noun, *n* in its plural, *m* in the Energic
Imperfect, and Hebrew *m* throughout the noun, and *n* in the
Energic, all, however, showing *n* in the endings of third
person plural. The simplest explanation of this fact is found
in the supposition that the *m* and *n* existed originally side by
side as demonstrativ additions to the verb-noun, and that,
when noun and verb assumed distinct shapes, the two demon-
strativs were variously applied by different dialects according
to the feeling of eufony, or from other considerations. We
must then suppose that the flexions of the Perfect and Imper-
fect took shape at a time when *n* was generally employd, since
there is no sign of the *m* in these forms—such cases as
yᵉsusum (Isa. xxxv. 1, where the next word begins with *m*)
being too doubtful to establish its existence. This would so
far go to show that the *n* preceded the *m* historically. The
same explanation may be offered for the Hebrew Energic,
which seems to hav ended in *an*. The general statement,
then, would be that at a remote period the *n* was generally

employd in the verb, and so remaind in most of the dialects,
and that at a later time the *m* took its place in some dialects
in the whole or in parts of the noun, and in those parts of the
verb that stil preservd most clearly their nominal character.
This explanation, based on the supposition of the identity of
the nominal and verbal flexions, is by no means without its
difficulties; but, if we abandon this, we ar involvd in equal
difficulties from the difference of usage in the verb itself,
where *n* sometimes (in Assyrian) appears in the personal
endings, and *m* in the Energic. As to the final vowel, which
is now usually *a*, there is some ground for supposing that
forms in *u* and *i* also existed originally. In fact the ending
nu is found in the Assyrian inscriptions, according to Oppert,
Gram. Ass., p. 49, with which may be compared the Arabic
third plural personal pronoun *hu.mu.* The *ni* in Arabic Im-
perfect dual and third feminin plural Energic may be merely
a eufonic change; but it (as wel as the change of Arabic
third singular personal pronoun *hu* to *hi* in some cases) may
point to an early form *ni* alongside of *na* and *nu*. This is in
accordance with what we hav reason to believ was tru of the
pronouns, where *hu*, *hi* and *ha* seem originally to hav stood
together without difference of gender, and to hav been
gradually applied to distinct uses.

It is not improbabl, therfore, that the early Semitic lan-
guage had the forms *umu*, *umi*, *uma* and *unu*, *uni*, *una*, out of
which hav been selected those that we now find in use. Our
data do not suffice to go back of this into the origin of the *n*
and *m*, and determin whether they came into existence as
demonstrativ pronouns, or were shaped out of verbs or nouns,
or originated in some other way. The final vowel was soon
dropt in the majority of the dialects; the old Arabic alone
retaind it regularly in the Imperfect masculin. The *n* lingerd
longer; old Aramaic kept it in the Imperfect, in Assyrian it
was frequent, and is found in the earlier Israelitish use; in
the Perfect also it remaind in Hebrew down to historical
times (tho rare), but disappeard from Arabic and Aramaic
in the masculin form. In the feminin it was more generally
retaind (as in Arabic Perfect, Hebrew Imperativ and Im-

perfect). In the modern dialects it has been everywhere dropt.

For the disappearance of the *a* and *n* it is not necessary to seek any other reason than the ordinary wear and tear of language. The Hebrews, who were surrounded by a number of distinct but related tribes, and establisht the first great Semitic monarchy, earliest felt the effects of this friction, and after them came at some interval the Assyrians. The Aramaeans never founded an empire, but their language became, partly from their geographical position between the great powers of Western Asia, the speech of commercial intercourse, and suffered fonetic diminution. The Arabians, cut off from association with other peoples, and having no great communities, preservd old forms most fully til the times of Islam when they entered into the history of the world, and their language went the way of its predecessors. It is only in Assyrian and Hebrew that materials exist for tracing the gradual disappearance of the *n* in the verb-termination *un*, and they ar fuller in the latter than in the former. When, then, did the *n* disappear from general use among the Israelites? It appears from the lists above given that it occurs after the exile rarely in prose, tho frequently in poetry (see, for exampl, the post-exilian Ps. civ.) and in general oftener in the earlier prophets than in the later. It must be assumed that the occurrences exhibit the usage of the times when the present text originated. A prophet, for exampl, would undoubtedly use the dialect of his own time, since it was his object to impress the peopl. For the same reason a historian would use the grammatical forms natural to him, and, if he had occasion to quote from or adopt earlier authorities, he would, if he alterd them, make such changes as to bring them into accordance with his own usage. The poets, in like manner, wrote for their contemporaries and used language that would not seem to them harsh or affected. A deliberate use of archaïsms for the purpose of giving an appearance of antiquity to a composition was not the custom of ancient peoples, as instances in the Old Testament prove; the author of Ecclesiastes, who speaks in the name of king Solomon, uses his own

Aramaizing speech without restraint, tho, if he examined the language of the past with anything of a critical eye, he must hav known that the linguistic usage of his royal preacher was very different. The attempt to reproduce iñ literature the forms of the past is of quite modern origin, later than Chaucer and Shakspere. Certainly there is no reason to believ that the Old Testament writers represent anything but the real usage of their own times, whether they be original authors or editors. But an author might employ a form that was no longer current among the peopl, tho intelligibl to them, if it added to the solemnity or rhythmical flow of his composition; and an editor might retain such forms in his author when they seemed to him appropriate and forcibl. To this general statement one or two modifying facts must be added. We hav evidence that after the exile alterations were made to different extents in the different books—less in the Pentateuch than in the rest, so that in the former any ancient usages that may hav come down to the post-exilian editors were more likely to be retaind. And then in all the books something must be allowed for inadvertence and arbitrariness of editors and scribes. Examining the facts in regard to the *un* in accordance with these principles, we find in the first place that its occurrence throughout the book of Psalms, even in such late poems as Pss. civ, cxxxix, lxxiv, shows that it did not completely lose its hold on the language til a late period, perhaps not til after the second century B. C.; even then (if Ps. lxxiv belongs to that time) a poet could use it in a hymn that was intended to be understood by the peopl. But this does not represent the language of common intercourse. The book of Proverbs, whose dialect is more that of the ordinary life, uses the *un* very seldom, the whole book containing it not half as often as the single psalm civ; but Job more than Proverbs and Psalms. The probability is that the text of the prophets was alterd littl grammatically. They were collected into a canon early, about the end of the fifth or the begining of the fourth century B. C., and they had been comparativly littl copied; it is likely that they exhibit with tolerabl accuracy the usage of the sixth, seventh and eighth centuries,

with an exception, perhaps, in the case of Jeremiah. The list
shows that our ending was employd somewhat freely in the
seventh century, or from 730–630 B. C.; it occurs in Isaiah
about as frequently as in Psalms, and as often in Zephaniah
as in Deuteronomy. It could not have been obsolete at this
time; if it belonged to elevated discourse, it was at any rate
a natural mode of expression for the prophetic writers. That
it did belong to solemn style appears from a comparison
between Jeremiah and the second Isaiah; the former, who
has littl exaltation, and in whose book there is much prose,
has the *un* very seldom, while the latter, thirty or forty years
later, uses it as frequently as the Isaiah of Hezekiah's time.
The usage, then, really continues into the exile, but the style
of the book has much to do with it, not only in the exile, but
in the preceding period; we ar not surprised to find that the
sustaind lofty prose of Deuteronomy employs it freely. The
case seems to be the same in the eighth century; Hosea, who
is markt by an impassiond style, has our ending nearly as
often as Isaiah, in the generally prosaic Amos it is rare, while
in one passage in Joel (ii. 4–8) it is used with extraordinary
frequency (whether, however, the writings of Joel belong to
the eighth century or to the post-exilian period, is doubtful).
From these prophetic writings, which probably exhibit with
tolerabl faithfulness the dialect of their authors, the general
conclusion is that the *un* was obsolescent, but stil a recog-
nized and even favorit expression of solemn and elevated
style. For the usage of common life we ar dependent on the
historical books. While, as has been remarkt, the four
earlier, Joshua, Judges, Samuel, Kings, were workt over or
composed during the exile, it is possibl that they may preserv
old narrativs or conversations so exactly that we may rely on
them as giving the expressions of the popular language.
Joshua seems not to offer anything of this kind; its narrativ
is throughout formal and elevated, in the style of the prophets
or of Deuteronomy. In Judges we hav a possibl exampl in
the story of Samson (xv. 7, 12), and in First Samuel several
passages that bear the stamp of antiquity and hav the tone of
popular talk, as ii. 15, 16, ix. 13 (twice), xi. 9; it is worthy

of note that in the first two of these, as well as in ii. 22, 23, the same verb occurs several times. From such passages we infer the use of the un in the begining of the tenth century or the latter part of the eleventh, when those accounts may first have been written down. Further, from such passages as First Kings, xix. 2, xx. 10, we may surmise that as late as the begining of the ninth century the expression, if not in common use, survived in certain formulas; Jezebel and Benhadad ar represented as saying: "So may the gods do to me and so may they add," etc., where it is probably an accident of the editor's feeling that gives the un to both verbs in the first case, and only to one in the second. In both these passages, however, a doubt may arise from the fact that the speakers ar foreigners in whose languages the termination in question was in general use; this was certainly tru of the Syriac dialect of Benhadad, and as to the Sidonian Jezebel, it happens that the two occurrences of the third person plural Imperfect in the Sidonian inscription of Eshmunazar both end in un, and there ar no other certain examples of this Imperfect form in the inscriptions (Schroeder, *Die Phoenizische Sprache*, p. 194). As the verb is in the singular when the formula is employed by Israelites, we hav no means of judging from it how far the un occurs. As to the cases cited above, the supposition that these two persons used an uncommon Hebrew expression after the analogy of their nativ tongues, and that the Israelite historian preservd exactly their words, seems less probabl than that the expression itself was familiar in their time. At a later period also, in Hezekiah's reign, there ar two occurrences of the un in speeches of the Assyrian Rabshakeh (Second Kings, xviii. 22, xix. 10), but one of them is found in the immediate context (xix. 6) in the words of Isaiah. Later than this the termination does not occur in Kings; in Chronicles it is found only in solemn passages, and belongs to the dialect of the prophets and Deuteronomy. Finally, its absence from the later prose shows that by the time of the exile it had ceased to be used in the language of common life.

Comparing these data, and making du allowance for the

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incompleteness of the reports of early times and the irregularities in the revisions of editors, we may conclude that the *un* remaind in common use in Hebrew til about the eleventh century B. C., that after this it became less and less frequent, surviving in some common formulas, and used with more or less freeness in elevated discourse, and disappeard entirely from prose during the first century after the exile, tho it continued to be employd in poetry three hundred years longer.

From this review of the usage it is evident that the termination is pure Hebrew, and common to all parts of the country—not dialectic, and not of foreign ·origin. There ar linguistic differences among the different books of the Old Testament, which hav been supposed to show the existence of dialects; but the only clearly stated peculiarity of speech (the Ephraimite *s* instead of *sh*, Judg. xii 6) does not appear in the literature. It is not in itself improbabl that there were local differences of language; it would not be surprising if it should appear that the speech of the northern tribes had more resemblance to the Aramaic, and that of the Southern tribes more to the Arabic than is found in the language of Judah. But these differences, if they existed, ar not traceabl in the present literature. After allowance has been made for individual peculiarities of writers and for foreign importations (especially Aramaisms) there remains littl or nothing to constitute dialects; at most we may discover provincialisms, as the later Galileans were markt by a slovenly pronunciation of the gutturals. Of the supposed instances of provincialisms collected by Böttcher (*Lehrbuch der Heb. Sprache*, I. pp. 14–16) the most striking ar the "Arabisms" in Job; but so many of these ar found in Judaic writings that it is difficult to infer from them any provincial peculiarity. It may be that the literary centralization at Jerusalem and editorial revisions hav obliterated original local differences. In any case our termination *un* is found so generally distributed, in Hosea, Isaiah, Amos, Job, Judges, and Samuel, that a provincialism here is out of the question.

It is equally clear that it was not Aramaic influence that determined its use, since in the most decidedly Aramaizing

books (Ecclesiastes, Song of Songs, Ezra, Esther, Daniel), it
is not found at all; the occurrences in Second, Chronicles
seem to be in quotations from older authorities—the passages
in which they ar found ar in the Deuteronomic style, which
differs wholly from that of the ordinary narrativ of Chronicles.
Its absence from these books is due to their post-exilian date
(in connection with which it is to be observd that it does not
occur in Leviticus). It may be said also that it occurs too
early to be ascribed to Aramaic influence, for exampl, in such
passages as First Samuel ix. 13, which appears to be not later
than the tenth century, or perhaps the eleventh. Tru, it is
not easy to say when Hebrew began to be affected by the
neighboring dialect. The first historical notice of a contact
between Israelites and Syrians is in the reign of Saul (First
Samuel xiv. 47), about the middl of the eleventh century,
after which the intercourse between the two peoples seems to
hav been frequent. It is not til Hezekiah's time, towards the
end of the eighth century, that there is mention of. linguistic
intercourse (Second Kings, xviii. 26); Jewish and Assyrian
officers then seem equally to understand Syriac. So wide an
extension of the language presupposes acquaintance with it
in Judah for some time before, but not necessarily for more
than a century or two, and not to such an extent that it would
affect the dialect of the people. Aramaic entered the Israel-
itish territory from the north; the northern tribes were first
affected by it, but not largely til the Assyrian conquest in
the latter part of the eighth century. The literature
before this and for some time after shows not markt
Syriac constructions and uses of words, but only such
accordances of signification as may be due to the common
origin of the two dialects; it is not til the period of the exile
that distinct Aramaisms begin to appear (tho it is not to the
exile, but to other causes, that they ar to be ascribed). Even,
then, if it be regarded as probabl that Aramaic began to make
itself felt in the northern part of Canaan soon after the
Israelitish occupation of the country, there is no trace in the
literature and the everyday-language of its influence til some
time later, and the use of the *un* could not be referred to it.

The termination is plainly genuine Hebrew, which went thru
the usual process of fonetic decay, and died out so completely
that not even the later acceptance of many forms from
Aramaic (in which it prevaild) could revive it.   The loans in
the later Hebrew from Syriac belong rather to the sphere of
thought, and of expression as far as it was connected with
the thought.   A new civilization and set of ideas natur-
ally allied itself with a new language more in accordance
with it; but while Ecclesiastes and other books employ the
convenient words and constructions that Syriac offered, they
do not adopt the longer ending of the verb, which Hebrew
had already cut down, and in the reintroduction of which
there could be no advantage.

Finally, under what conditions does this termination appear
in the Old Testament? what ar the circumstances that deter-
min its use? It is employd in a great variety of grammatical
constructions—very often in simpl declarations, affirmativ and
negativ, and in command or exhortation, frequently in condi-
tional and telic sentences, less often in questions, in relativ
clauses, and expressions of wish.   Its relativ frequency in
these different constructions is about the same as that of the
ordinary form in *u*, so that it offers nothing peculiar in this
respect.   In Deuteronomy the hortatory use is most frequent,
but the declarativ in the literature at large.   The use of it
seems to be quite independent of the grammatical construction.
Nor is there any wel-markt law of eufony controling it.*
It is probabl that this consideration enterd into its use; this

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* The following is the substance of Böttcher's statement on this point
(*Lehrbuch*, II. pp. 135–137): "It occurs most frequently in pause, very often
as emfatic form, often also as eufonic form before vowels and weak
consonants (like the Greek inserted Nu), and in a few cases is used for the
sake of rhythmic eufony. It is found often in a few much-used verbs,
meaning to say, speak, go, know, do, return, etc., in all classes except the
Double Ayin, in al the ordinary Derived Stems except the Pual, most
frequently in Qal, least in the Passives, oftener in the third person than in
the second." It is obvious that the second class of uses (the particular
verb-stem, etc.) is determind by the ordinary conditions of discourse. To
his rule of eufony also there ar many exceptions; thus in First Kings,
xix. 2, the *un* occurs before a consonant, while in the same expression a
littl further on (xx. 10) it is the form in *u* that is used before a vowel.

is the simplest explanation of numerous cases where it is employd in some verbs in a sentence and omitted in others. The writer may sometimes have been guided by a general feeling of contrast between the longer form and the shorter, or by the weight given to the sentence by the use of the *un*-form a certain number of times. In part, no doubt, the use was arbitrary, and some allowance also is to be made for the accidents of copying and of editorial revision. But while the general sense of eufony may hav to some extent determind the use in particular parts of sentences, the natural conclusion from an examination of the facts is that the controling element in prose was the character of the discourse. As we hav seen, there ar a few passages in which the *un* seems to belong to the popular language, going back to a time when it had not yet disappeared from ordinary life; in addition to those mentioned above, we may perhaps cite the old law-book, Exodus xx–xxiii, parts of which hav a decidedly ancient look. Aside from such passages, our termination is found almost solely in prophetic discourse, especially in the prophets of the eighth and seventh centuries, in the elevated discourse of Deuteronomy, and in various passages in the historical books, particularly Genesis, Exodus, Numbers, Joshua and Judges, that bear the same stamp (see, for instance, Genesis iii. 3, 4, xviii. 28–32, Exodus ix. 28–30, xi. 7, xiv. 14, Numbers xi. 19, xvi. 28, 29, Joshua iii. 7, 10, 13, iv. 6, 21, xxiv. 15, 27, Judg. ii. 2), besides the quotations in Kings and Chronicles from earlier sources. Among the poetical books, also, the same thing holds tru of the Psalms; the *un* occurs almost exclusivly in those psalms that ar characterized by a prophetic or a lofty or solemn didactic or declarativ tone. See, for exampl, Pss. lxviii, lxxxix, civ, cviii, cxv, cxxxix, in which this character is wel-markt; and this is the case with al but three or four, in which the termination is found. In the same direction it is to be noted that Job, in which it is frequent, differs from Proverbs, in which it is rare, by a more elevated tone, by a filosofical as distinguisht from a practical turn of thought.

While, therefore, our termination occurs frequently in al periods of Old Testament poetry, its use in prose is controld

first, by the style of the book, and secondly, by the obsoles-
cence of the grammatical form. Down to the end of the exile
we need not be surprised to find it freely used at any time in
books characterized by elevated and solemn style; and as to
the ordinary prose, the facts warrant us in supposing that the
older the book the more frequent wil be the *un*, and that its
non-occurrence is a mark of late date. We might go into a
particular examination of the several books, prose and poet-
ical, and inquire, for exampl, why the form is found more
frequently in Exodus than in Genesis, and not at al in
Leviticus and the Song of Songs; but this would require more
space than can here be commanded, and it must suffice to
hav establisht the general principl, leaving the special appli-
cations to be made to the particular passages.

III.—*The Beginning of a Written Literature in Greece.*

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An article on the above subject by Professor F. A. Paley
in Frazer's Magazine for March, 1880, furnishes an occasion
for some criticism and for a statement of the grounds of an
opinion differing somewhat from the one there maintained. I
will first state as briefly as possible the arguments and con-
clusions of Paley's article, with comments, and then present
what evidence I can in favor of a different view.

Mr. Paley's general proposition is, that there is no evidence
of the use of writing to multiply copies of books until a much
later date than is ordinarily supposed. It is difficult to deter-
mine precisely to what date he would bring it down, for his
statements do not agree with one another. In one place he
speaks of "the times of the Alexandrine school of learning,
when, *for the first time* (the italics are his), the use of
papyrus and the practice of transcription became common."

But a page or two later he says, "Books were no sooner introduced than they became both popular and cheap. Treatises on eloquence, as those by Tisias and Corax, mentioned in the 'Phaedrus,' the stories of Aesop, and the philosophical dogmas of Anaxagoras, could be bought at Athens, in the time of Plato, for a very small sum." It is not easy to see how books could be "popular and cheap in the time of Plato," a hundred years before the time when first "the use of papyrus and the practise of transcription became common." But we will take the alternative which involves least divergence from the common opinion, and suppose Mr. Paley to mean, as indeed the whole drift of the article indicates, that the use of writing for books did not become common in Greece until after 400 B. C., and in fact was hardly known at all before that date. I may say here at the outset that my own belief is, that it was introduced as much as fifty years earlier, and was fully established and familiar for some years before 400 B. C.

The first argument for Mr. Paley's view is drawn, he says, from "the singular, significant, and most important fact which, so far as I am aware, has never been noticed, that the Greek language, so copious, so expressive, not only has no proper verbs equivalent to the Roman *legere* and *scribere*, but has no terms at all for any one of the implements or materials so familiar to us in connection with writing (pen, ink, paper, book, library, copy, transcript, etc.), till a comparatively late period of the language." Then in a note he explains that "the Greek equivalent to *legere* means, to speak, and that to *scribere* means properly, to draw or paint." The latter "came to be used of writing because it (i. e., writing) was at first an adjunct to descriptive painting." "The Greek had two verbs which indirectly express reading, but they are clumsy shifts, unworthy of so complete a language, the one meaning *recognoscere*, the other *sibi colligere*." I have quoted this in full because it seems so strange a process of reasoning that I could hardly trust myself to summarize it correctly. If it proves anything, it proves that the Romans began to read and write earlier, or at least earlier relatively to the development

of their language, than the Greeks. No language, of course, can have a word for either of these ideas (or any other) before the thing expressed by the word is known to the speakers of the language, but it does not appear that the use of the compound form (ἐπιλέγομαι) proves any less frequency or familiarity with the thing than the use of the simple form (*legere*). Further, *legere* has other senses besides *to read*, and apparently does not mean *to read* before the time of Cicero. On the other hand, as was suggested to me by Mr. F. B. Tarbell, λέγω, at least once in Plato (Theaet. 143 C.), and repeatedly in the orators, has the sense *to read aloud*, to recite from a manuscript. No such inference as is here drawn from the use of different stems or simple and compound forms in kindred languages has any validity. One might as well argue from the fact that the same stem in modern German means *to speak* (*reden*) and in modern English *to read*, that the Germans talked more than the English, and the English read more than the Germans. As to *scribere* and γράφειν, Mr. Paley arbitrarily assumes, without any reason, I think, that all the uses of γράφειν and its derivatives, before the Periclean age, refer to painting or to scratching on a hard surface. The truth is rather that γράφειν means both of these, and after writing with ink is introduced, means that too, and the special meaning in each case must be determined by other considerations. That *scribere* means only *to write*, indicates merely that the literature from which we learn its meaning belongs to a period when writing was a familiar art. The alleged absence of the words for pen, ink, paper, etc., will be referred to below.

How, then, it will be asked, is the existence of the earlier Greek literature, or rather the preservation of it to later times, to be explained? How is it that we have any fragments of the early historians, and the whole work of Herodotos and Thukydides? Mr. Paley anticipates this question, and answers that in his opinion, "authors of works laboriously wrote them on strips of wood, probably on a surface prepared with wax." These autograph copies were the only ones in existence, and the only way of publishing a book was by

public readings from these copies. He doubts whether it would be possible to procure for money a copy of Herodotos or Thukydides in the lifetime of the author. His reason for this view is that he finds no proof that the earlier Greeks had any writing material equivalent to our paper or parchment. There are, to be sure, several passages, to be cited presently, where the words for papyrus, paper, and parchment occur, but because they are brief passages, or the only instances, he seems to think they have no weight. Yet it would seem as if a single occurrence of the word *kerosene* in a book printed before 1846, or of *wigwam* in a book earlier than the discovery · of America, would be enough to show knowledge of the existence of the thing denoted by the word.

Mr. Paley's next argument is the absence of reference in the writers of the Periklean age, particularly Herodotos, Thukydides, and Plato, to the works of their predecessors. Such reference, he thinks, would certainly have been made, if the later writers had had access to copies of the earlier works, and the comparative absence of it proves that no such copies were within their reach.

There are, it is true, remarkably few references by name to previous writers in the early Greek literature, but Mr. Paley seems to have overlooked several passages in Herodotos, where it is clearly implied that he consulted some kind of records or accounts of the events he narrates, or descriptions of states whose form of government he speaks of. They are as follows: 6:55. καὶ ταῦτα·μέν νυν περὶ τούτων εἰρήσθω· ὅτι δὲ ἐόντες Αἰγύπτιοι, καὶ ὅτι ἀποδεξάμενοι ἔλαβον τὰς Δωριέων βασιληίας, ἄλλοισι γὰρ περὶ αὐτῶν εἴρηται, ἐάσομεν αὐτά· τὰ δὲ ἄλλοι οὐ κατελάβοντο, τούτων μνήμην ποιήσομαι, and then he goes on to speak of the privileges and functions of the Spartan kings. 9:81. ὅσα μέν νυν ἐξαίρετα τοῖσι ἀριστεύσασι αὐτῶν ἐν Πλαταιῇσι ἐδόθη, οὐ λέγεται πρὸς οὐδαμῶν, δοκέω δ' ἔγωγε καὶ τούτοισι δοθῆναι. A similar expression occurs in 8:133. ὅ τι μὲν βουλόμενος . . . ταῦτα ἐνετέλλετο, οὐκ ἔχω φράσαι· οὐ γὰρ λέγεται· δοκέω δ' ἔγωγε κτλ. These passages plainly indicate that he had access, not merely to inscriptions and formal public records, but to writings prepared for the information of inquirers and discussing the

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motives of actions as well as describing the early history of
states. (The use of authorities by Herodotos is treated by
Rawlinson in his Introduction, chapter II.) But it remains
true, as Mr. Paley says, that there are exceedingly few
quotations by name of these earlier writers.

Plato quotes Akousilaos once, Thukydides quotes Hellanikos
once, Herodotos refers to Hekataios three or four times—but ·
beyond these few instances there is no recognition by these
writers of the many persons who are said to have written
prose before their time. Here he touches upon a singular
fact, which certainly is not easy of explanation. The most
striking instance of it perhaps is the case of Thukydides, who
is not mentioned, I believe, by any writer whose works we
have, earlier than Dionysios of Halikarnassos, in the last
century before the Christian era. But this fact will not bear
the interpretation Mr. Paley puts upon it. It is true also in
the next century when books were common. Aristotle does
not mention Hekataios, Hellanikos, Akousilaos, Thukydides,
or Xenophon. Plato does not quote from Xenophon, nor
Xenophon from Plato.* A similar failure appears in the
argument which Mr. Paley bases upon the statement in the
Phaedros of Plato, that Lysias was taunted with being a
λογογράφος, *speech-writer*, as almost the same with being a
sophist. Mr. Paley regards this as "satirizing a practice
which was then beginning to come into vogue." But the
same contempt for λογογράφοι and σοφισταί together is expressed
in Dem. de Falsa Legatione, a speech delivered in 342 B. C.,
long after the use of writing must have been familiar. It is
plain that it is not the mere *writing* of the speech that is
objected to, but the professional composition of speeches for
others to use.

The lack of reference to previous writers is mere negative
evidence, so Mr. Paley supplements it by the fact that

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* Westermann (on Dem. Ol. 3: 21) remarks upon the habit of the orators
of referring for matters of history to tradition rather than to written
records, and explains it as due to a desire to identify themselves as much
as possible with the average hearer, assuming no more knowledge than he
would have.

Thukydides, in attempting to sketch the early history of Greece, is obliged to rest upon " inference, memory, hearsay." He has no current written literature to appeal to, and this shows that the previous historians, Herodotos and his predecessors, were not accessible to him. Indeed, Mr. Paley distinctly says, "Thukydides does not seem to have known Herodotos at all." These statements, which surely will surprise every Greek scholar, are founded on passages in the first book, sections 1, 9, 20, and 21. They ignore the language of that " single reference " to Hellanikos in 1: 97, which Mr. Paley repeatedly mentions, but nowhere quotes. It deserves to be quoted in full from its clear evidence on this point. ἔγραψα δὲ αὐτὰ (i. e. the outline of the growth of the Athenian empire after the Persian war) . . διὰ τόδε, ὅτι τοῖς πρὸ ἐμοῦ ἅπασιν ἐκλιπὲς τοῦτο ἦν τὸ χωρίον καὶ ἢ τὰ πρὸ τῶν Μηδικῶν Ἑλληνικὰ ξυνετίθεσαν ἢ αὐτὰ τὰ Μηδικά· τούτων δὲ ὅσπερ καὶ ἥψατο ἐν τῇ Ἀττικῇ ξυγγραφῇ Ἑλλάνικος, βραχέως τε καὶ τοῖς χρόνοις οὐκ ἀκριβῶς ἐπεμνήσθη. " I have written this outline for this reason, because all my predecessors have neglected this period and composed either a history of Greece before the Persian wars, or of the Persian wars themselves; and the one who did touch on this period in his history of Attika, Hellanikos, made but a brief record without strict chronological accuracy." It is clear from this, (1) that he knew the works of several predecessors in full, so that he could tell what periods they treated and in what way; (2) that he knew Herodotos's work, for no one else, so far as we know, wrote so full a history of the Persian wars; and (3) that he expected readers to look in *their* histories for information on that period, and, failing to find it, to have recourse to his. (Cf. 1: 23. διότι δ' ἔλυσαν, τὰς αἰτίας προέγραψα πρῶτον καὶ τὰς διαφοράς, τοῦ μή τινα ζητῆσαί ποτε ἐξ ὅτου τοσοῦτος πόλεμος τοῖς Ἕλλησι κατέστη.) How, then, are those other passages to be understood, wherein he speaks as if obliged to rest on tradition and without any previous authorities to refer to? Simply by recognizing the evident fact that he did not regard his predecessors as authorities. He had formed for himself a new standard of historic evidence—and, tested by that standard, the works of his predecessors could

not command his confidence. He refused to trust such
material as Herodotos used, and he means by this language
to indicate that in his view all previous so-called histories
rested merely on tradition. It can hardly be doubted that he
included Herodotos as well as Hellanikos and Hekataios
among the λογογράφοι, " who composed rather to please the ear
than with a view to truth."

One other point in Mr. Paley's article deserves notice. He
supposes that the stories, histories, and philosophic teachings
of the earlier Greeks were a purely oral literature, and that
they were put into writing eventually from the dictation of
the pupils and followers of their authors—and that thus it
happens that the *writings* of the early philosophers and
historians are referred to. It would seem from this sugges-
tion that Mr. Paley can hardly have ever looked into the
fragments of the early historians. He would have found a
reasonably large number of such fragments, from Hekataios,
Charon, Xanthos, Hellanikos, and Akousilaos, preserving in
many cases apparently the original words of the authors and
quoted from works of some extent, of which the titles are
given. He would have seen also that the matter of these
quotations and the style are such as to make it impossible to
imagine them orally delivered and preserved by memory until
after the lapse of years writing was introduced. It is, I
think, really impossible to suppose that such matter as makes
up the "Europe" and "Asia" of Hekataios, for example, can
ever have been delivered orally by a master to a group of
listening pupils. For it consists largely, if we may judge by
the fragments preserved, of a list of names of towns—hardly
more than the simple name in many cases, with a brief indica-
tion of the locality. One example, taken almost at random,
may show the character of a multitude: Steph. Byz. Χάλαιον·
πόλις Λοκρῶν· Ἑκαταῖος Εὐρώπῃ· "μέτα δὲ Λοκροί, ἐν δὲ Χάλαιον πόλις,
ἐν δὲ Οἰανϑὴ πόλις." (Müller, F. H. G., 83.) One might as
well commit the dictionary to memory as matter like this,
without help of metre or of connection. Not only could it
not be committed to memory, but we may rightly argue from
the subject matter that it would not be composed before the

time when the idea of a book had become a familiar idea. The making of such a record does not belong to the age of epic narration, nor to that of lyric song, nor to that of oral speculative discourse, but to that in which history begins— when men first recognize the value of facts preserved in writing and begin to regard matter as well as form.   That gave rise to a prose style, and thus also made writing neces- sary.   What could induce a man to put together such a string of bare facts as this, except the desire to preserve the knowl- edge for the information of others in such a form that they could consult it?   We cannot imagine Hekataios as delivering orally such matter as this to a company of hearers.   We must suppose that it was written out from the first, and either kept by him for consultation, or, as seems more likely, copied out as a whole or in part for the convenience of those whose inter- ests, of trade or colonization, made them willing to pay for the work.

I come now, omitting several minor points in Mr. Paley's article which are open to criticism, to the evidence upon which I rely to carry back the extensive use of writing to the middle of the fifth century before Christ.   It may seem the more worth while to do this because, so far as I can ascertain, this precise point has not been fully illustrated in any easily accessible work.   Several of the passages cited are referred to in Mr. Paley's article, but have in his view little or no importance. The passages are arranged as nearly as possible in chronologi- cal order.

Pind. Ol. XI. 1ff.

> τὰν Ὀλυμπιονίκαν ἀνάγνωτέ μοι
> Ἀρχεστράτου παῖδα πόθι φρενὸς
> ἐμᾶς γέγραπται.

This appears to be, as Mr. Paley says, the earliest instance of ἀναγιγνώσκω, meaning *to read*.   It is more than a mere instance of the word, for it shows it in connection with γράφειν, meaning *to write* or *engrave*, and both together in a metaphor, which would hardly be natural or intelligible, unless the two ideas in this association were so familiar as to be

caught at once by hearers of the ode. The practice of reading written words must have been, not the secret art of a few, but in some degree a part of common life, before a poet could thus casually refer to it. Unfortunately, this ode cannot be precisely dated, though it must belong some years before 440 B. C., near which time the poet died. The same metaphor occurs repeatedly in Aeschylos (e. g., Prom. 989, Supp. 991, Cho. 441).

Aesch. Suppl. 946f.

$$\tau\alpha\tilde{\upsilon}\tau' \ o\dot{\upsilon} \ \pi\acute{\iota}\nu\alpha\xi\acute{\iota}\nu \ \dot{\epsilon}\sigma\tau\iota\nu \ \dot{\epsilon}\gamma\gamma\epsilon\gamma\rho\alpha\mu\mu\acute{\epsilon}\nu\alpha$$
$$o\dot{\upsilon}\delta' \ \dot{\epsilon}\nu \ \pi\tau\upsilon\chi\alpha\tilde{\iota}\varsigma \ \beta\acute{\iota}\beta\lambda\omega\nu \ \kappa\alpha\tau\epsilon\sigma\phi\rho\alpha\gamma\iota\sigma\mu\acute{\epsilon}\nu\alpha.$$

The second of these lines Mr. Paley brackets in his third edition, on the ground of the metre, though the fault had not attracted his notice before. No other editor has ever suspected its genuineness, and many other lines no less open to objection stand unchallenged (e. g., Supp. 465, 931, 1016). It can hardly be doubted, I think, that the desire to get rid of the evidence of the line on the question of the use of writing sharpened Mr. Paley's sense of its faulty metre. For it plainly testifies to the familiar use of papyrus, folded and sealed, at the same time with that of wax-covered tablets. The date of the Supplices is not known, but from its structure it seems to be one of the earlier plays of Aeschylos, and no one, so far as I know, has placed it later than 460 B. C.

The next witness is Herodotos, whose history is supposed, from the latest incident referred to in it, to have been finished in its present form by about the year 425. Of course the material for it was gathered in great measure before this date, and his numerous references (1: 123, 125; 3: 42, 123, 128) to writing upon papyrus, γράφειν ἐς βιβλίον, though they may all refer to short memoranda or notes, yet imply familiar and frequent use of writing before his time. But the particular passage which I quote indicates much more than that. He says, in 5: 58: καὶ τὰς βίβλους διφθέρας καλέουσι ἀπὸ τοῦ παλαιοῦ οἱ Ἴωνες, ὅτι κοτὲ ἐν σπάνι βίβλων ἐχρέοντο διφθέρῃσι αἰγέῃσί τε καὶ οἰέῃσι· ἔτι δὲ καὶ τὸ κατ' ἐμὲ πολλοὶ τῶν βαρβάρων ἐς τοιαύτας διφθέρας γράφουσι. "And the Ionians from old usage give the name διφθέραι (skins) to

sheets of papyrus, because when papyrus was scarce they used
to use instead skins of goat and sheep; and still even in my
day many uncivilized peoples use such skins for writing."
This passage proves that papyrus was the usual material for
writing, as much so as paper in our day, and that it had been
so for a long time. Also, that it was ordinarily plentiful
among the Ionians of Asia Minor and the Greeks generally in
the time of Herodotos. He explains the local use of the word
διφθέραι (skins) as a name for papyrus, as arising from a local
scarcity of papyrus. Whether the explanation is correct or
not, it plainly shows that the writer thought of papyrus as
the common thing for everybody to write on—at least among
civilized Greeks, for he adds that some uncivilized peoples
still used skins or parchment. In my view this passage alone
supplies fully that which Mr. Paley desiderates, viz., some
mention of the use of papyrus as a writing material. It fully
supports the statements of Grote and Hayman, which Mr.
Paley characterizes as "unsupported by evidence."

In connection with this passage should be mentioned the
occurrence in certain comic poets, of about the same time
with Herodotos, of words implying the commonness in ordi-
nary life of writing and apparently of books. These words
are mentioned by Pollux (vii, 210). Thus he ascribes to
Kratinos, who died probably about 422 B. C., the word
βιβλιογράφος, and quotes (ix, 47) from Eupolis, whose latest
known play was given in 412 B. C., the phrase οὗ τὰ βιβλία
ὥνια, "where is the book-market." Other similar words occur
in later poets. In Aristophanes there are repeated references
to books. Thus in the Frogs (405 B. C.), verse 943,

$$(\text{ἰσχνανα τὴν τραγῳδίαν})$$
$$\text{χυλὸν διδοὺς στωμυλμάτων ἀπὸ βιβλίων ἀπηθῶν—}$$

"I reduced tragedy in flesh by feeding her on a porridge of
moral maxims drawn from books." And again, Frogs 1113ff.,
where the chorus addresses the two poets just as they are
going to compare their poetic styles:

$$\text{ἐστρατευμένοι γάρ εἰσι,}$$
$$\text{βιβλίον τ' ἔχων ἕκαστος μανθάνει τὰ δέξια—}$$

"(Fear not that the audience will not understand your jokes,) for they have been disciplined and every man has his book too and learns wisdom out of it." These are all instances of reference to books in general, but we have one from the same time which names a particular book. It is the passage already quoted from Thukydides (1: 97). I may repeat here the translation of it: "I have written this sketch for this reason, viz., because all my predecessors have neglected this period and composed either a history of Greece before the Persian wars, or of those wars themselves; and the one who did touch on this period in his history of Attika, Hellanikos, made but a brief record without strict chronological accuracy." Here we have reference to several histories, with implied knowledge of their contents, and special reference to one of which the title is given, ἡ Ἀττικὴ ξυγγραφή, being, I take it, a mere paraphrase for ἡ Ἀτθίς, under which name the book is quoted by later writers. This passage must have been written before 400 B. C., and probably was written as early as between the Peace of Nikias (422 B. C.) and the Sicilian expedition (415 B. C.). It supplies, from an almost contemporary source, clear proof of the early existence of written copies of the first Greek attempts at history, the existence of which has already been inferred from the subject matter and style of the histories as seen in the abundant fragments of them.

Another passage of Aristophanes, as commonly interpreted, mentions by title a copy of a particular book. It is in the Frogs, 52ff.:

καὶ δῆτ' ἐπὶ τῆς νεὼς ἀναγιγνώσκοντί μοι
τὴν Ἀνδρομέδαν πρὸς ἐμαυτὸν ἐξαίφνης πόθος
τὴν καρδίαν ἐπάταξε.

Mr. Paley does not overlook this passage, but evades the force of it against his theory by explaining it as referring to the name of a ship. In his view, Dionysos sitting on his own ship saw another near by with the name Andromeda painted on its stern or bow, and, as his eye rested on that name and he idly read it over and over, it reminded him of the play of

Euripides bearing the same name and so called up in him a longing for the poet. It is not possible, perhaps, to show that this explanation is certainly and necessarily a mistaken one, yet surely the common explanation, that he was reading a copy of the play, is more natural and probable. The tense of ἀναγιγνώσκοντι and the addition of πρὸς ἐμαυτόν to it, are indications in favor of this view. The passage so understood shows that it was nothing strange in 405 B. C. for a man going to serve in the Athenian fleet to take with him a copy of some favorite author or book.

As to the material on which such books were written, we have, besides the passage from Herodotos already quoted, a line from Plato Comicus, quoted by Pollux (vii. 210), which proves the use of the later word for paper in his time (425–395 B. C.):

<p style="text-align:center">τὰ γραμματεῖα τούς τε χάρτας ἐκφέρων.</p>

"bringing out the tablets and the sheets of paper." With this should be put the passage from the other and greater Plato (Phaedros, 276 C.), where he says: οὐκ ἄρα σπουδῇ αὐτὰ ἐν ὕδατι γράψει μέλανι σπείρων διὰ καλάμου—"he will not then laboriously write them in water, sowing (his seed of truth) with ink through a pen." The date of the Phaedros cannot be certainly determined, though some scholars have maintained that it must have been one of Plato's earliest writings. In any case we have here, not far from 400 B. C. on either side, mention of pen, ink, and paper (made, of course, from papyrus), and I would call attention to the perfectly incidental, matter-of-course character of the reference to pen and ink, in an illustration, in this last passage. It is not so that a writer would speak of a new instrument, just introduced and known to few persons.

The passages so far cited, except the last, have been all taken from writers or writings prior to 400 B. C. It seems proper, however, to add some from Xenophon and Plato, whose writings probably all belong after that date. It will be seen that one of these certainly and others probably involve recognition of books as easily accessible before that date. The lives of these two men extend from about 430 B. C. to

<p style="text-align:center">7</p>

about 355 B. C., but their writings were probably all composed after 400 B. C. It is a great misfortune, especially in the case of Plato and with regard to the history of his philosophical opinions, that the chronological order of these works cannot be ascertained. But I think it is fair to accept his incidental references to the existence and use of books as evidence of the facts within the first twenty-five years after 400 B. C.

I begin with the passages from Xenophon:

Mem. I. 6. 14. καὶ τοὺς θησαυροὺς τῶν πάλαι σοφῶν ἀνδρῶν οὓς ἐκεῖνοι κατέλιπον ἐν βιβλίοις γράψαντες, ἀνελίττων κοινῇ σὺν τοῖς φίλοις διέρχομαι. "And the treasures of the wise men of old which they have left behind them in written books, I open and read over in company with my friends." It is Sokrates who speaks here, and the conversation, in which the words occur, Xenophon explicitly tells us that he himself heard. It must have occurred then before his departure from Athens to join Kyros on his ill-fated expedition, that is, before 401 B. C. If there is any historic truth in the Memorabilia, it would be in a passage thus commended to us by the author himself, and I hardly see how we could ask for clearer or better evidence that books were easily to be obtained in the lifetime of Sokrates. That they were to be obtained for money appears from another passage:

Xen. Mem. IV. 2. 1. (ὁ Σωκράτης κατέμαθεν) Εὐθύδημον τὸν καλὸν γράμματα πολλὰ συνειλεγμένον ποιητῶν τε καὶ σοφιστῶν τῶν εὐδοκιμωτάτων. . . . 8. εἰπέ μοι, ἔφη, ὦ Εὐθύδημε, τῷ ὄντι, ὥσπερ ἐγὼ ἀκούω, πολλὰ γράμματα συνῆχας τῶν λεγομένων σοφῶν ἀνδρῶν γεγονέναι; Νὴ τὸν Δία, ἔφη, ὦ Σώκρατες· καὶ ἔτι γε συνάγω, ἕως ἂν κτήσωμαι ὡς ἂν δύνωμαι πλεῖστα. Νὴ τὴν Ἥραν, ἔφη ὁ Σωκράτης, ἄγαμαί γέ σου, διότι οὐκ ἀργυρίου καὶ χρυσίου προείλου θησαυροὺς κεκτῆσθαι μᾶλλον ἢ σοφίας. . . 10. Τί δὲ δὴ βουλόμενος ἀγαθὸς γενέσθαι, ἔφη, ὦ Εὐθύδημε, συλλέγεις τὰ γράμματα; ἐπεὶ δὲ διεσιώπησεν ὁ Εὐθύδημος, σκοπῶν ὅτι ἀποκρίναιτο, πάλιν ὁ Σωκράτης, Ἄρα μὴ ἰατρός; ἔφη· πολλὰ γὰρ καὶ ἰατρῶν ἐστι συγγράμματα. (Sokrates learned) "that Euthydemos, a noble youth, had collected many writings of the most eminent poets and learned men... Tell me, Euthydemos, said he, have you really, as I am told, collected many writings of those who

have been eminent for wisdom? Certainly, Sokrates, said he, and I am still collecting in order to get as many as I possibly can. By Hera, said Sokrates, I am delighted with you, because you have not preferred the possession of treasures of money to that of treasures of wisdom. . . But what is it that you want to excel in, Euthydemos, said he, that you are collecting books? And when Euthydemos was silent, considering what answer to make, Is it in medicine? asked Sokrates, for there are many books on that subject." Here the praise given to the preference of wisdom over wealth shows that the books had been obtained by purchase. Though this conversation is not vouched for, as the other is, by Xenophon's statement that he heard it, yet it probably has historic reality, and if so, must have occurred before 400 B. C., and probably some years before the time of the Thirty (404 B. C.).

Another passage shows that books were exported to the Greek colonies on the Euxine Sea:

. Xen. Anab. VII. 5. 14. (The Ten Thousand on their way home come to Salmydessos and find there many spoils of wrecks on that dangerous coast.) ἐνταῦθα εὑρίσκονται πολλαὶ μὲν κλῖναι, πολλὰ δὲ κιβώτια, πολλαὶ δὲ βίβλοι γεγραμμέναι, καὶ τἄλλα πολλὰ ὅσα ἐν ξυλίνοις τεύχεσι ναύκληροι ἄγουσιν. "There were found many bedsteads, and many chests, and many written books, and quantities of other things of all kinds that shipmasters convey in wooden cases." The word γεγραμμέναι here is wanting in some inferior manuscripts, but all the later editors (L. Dindorf, Krüger, Rehdantz, Vollbrecht, Sauppe) take it into their text without question. These works of Xenophon were probably written after 390 B. C., but the evidence in these quoted passages all refers to facts occurring before 400 B. C. Of these passages Mr. Paley takes no notice whatever.

I add now a few passages from Plato, not as proof of the existence of written books before 400 B. C.—for the writings of Plato are of too uncertain date and presumably too late for that,—but as indicating how common and accessible books were, and on how great a variety of subjects they were composed, within the first thirty or forty years after that date.

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It may be legitimate to reason backwards from this fact and infer something like a similar rapidity in the spread of the new practice before 400 B. C., and thus get a confirmation of what we might conclude from the passages already quoted.

Apol. 26 D. Ἀναξαγόρου οἴει κατηγορεῖν, ὦ φίλε Μέλητε, καὶ οὕτω καταφρονεῖς τῶνδε καὶ οἴει αὐτοὺς ἀπείρους γραμμάτων εἶναι, ὥστε οὐκ εἰδέναι ὅτι τὰ Ἀναξαγόρου βιβλία τοῦ Κλαζομενίου γέμει τούτων τῶν λόγων; Here it will be observed that Plato represents Sokrates as saying that it would impute illiteracy or at least strange want of knowledge of current literature to the jurors, men chosen by lot, some five hundred perhaps in number, from all ranks of the citizens, to suppose them ignorant of the fact that "the books of Anaxagoras teem with such doctrines" as the accuser charged him with holding. "The books of Anaxagoras," one would think, must have been easily within the reach of people when this could be said. The next succeeding sentence, in which reference is made to "buying from the orchestra, for a drachma at the highest, power to ridicule Sokrates if he claims these doctrines as original with him," is so much disputed as to its precise meaning that it is better not to use it in evidence here.

Phaed. 97 C. ἀλλ' ἀκούσας μέν ποτε ἐκ βιβλίου τινός, ὡς ἔφη, Ἀναξαγόρου ἀναγιγνώσκοντος κτλ.

98 B. καὶ οὐκ ἂν ἀπεδόμην πολλοῦ τὰς ἐλπίδας, ἀλλὰ πάνυ σπουδῇ λαβὼν τὰς βίβλους ὡς τάχιστα οἷός τ' ἦν ἀνεγίγνωσκον.

Sympos. 177 B. ἔγωγε ἤδη τινὶ ἐνέτυχον βιβλίῳ, ἐν ᾧ ἐνῆσαν ἅλες ἔπαινον θαυμάσιον ἔχοντες πρὸς ὠφέλειαν, καὶ ἄλλα τοιαῦτα συχνὰ ἴδοις ἂν ἐγκεκωμιασμένα.

Gorg. 462 B. Πῶλος. Ἀλλὰ τί σοι δοκεῖ ἡ ῥητορικὴ εἶναι; Σωκρ. Πρᾶγμα ὃ φῂς σὺ ποιῆσαι τέχνην ἐν τῷ συγγράμματι ὃ ἐγὼ ἔναγχος ἀνέγνων.

518 B. Μίθαικος ὁ τὴν ὀψοποιίαν συγγεγραφὼς τὴν Σικελικήν. (Mithaikos, author of the "Handbook of Sicilian Cookery.")

Protag. 325 E. οἱ δὲ διδάσκαλοι τούτων τε ἐπιμελοῦνται, καὶ ἐπειδὰν αὖ γράμματα μάθωσι καὶ μέλλωσι συνήσειν τὰ γεγραμμένα, . . παρατιθέασιν αὐτοῖς ἐπὶ τῶν βάθρων ἀναγιγνώσκειν ποιητῶν ἀγαθῶν ποιήματα καὶ ἐκμανθάνειν ἀναγκάζουσιν. (If the boys had copies of Homer and Hesiod to learn lessons from in school, one would suppose their fathers might have had them to read.)

Phaedr. 228 D. Σωκρ. Δείξας γε πρῶτον, ὦ φιλότης, τί ἄρα ἐν τῇ ἀριστερᾷ ἔχεις ὑπὸ τῷ ἱματίῳ. τοπάζω γάρ σε ἔχειν τὸν λόγον αὐτόν. (And so he had a copy of Lysias' speech, which he presently reads.)

230 D. . . σὺ ἐμοὶ λόγους οὕτω προτείνων ἐν βιβλίοις τήν τε Ἀττικὴν φαίνει περιάξειν ἅπασαν καὶ ὅποι ἂν ἄλλοσε βούλῃ.

273 A. τόν γε Τισίαν αὐτὸν πεπάτηκας ἀκριβῶς. (This same phrase, πεπατηκέναι τινά, *to be familiar with an author*, occurs in the Birds of Aristophanes (471) οὐδ' Αἴσωπον πεπάτηκας. It seems to imply almost necessarily the use of a copy of the author's works. The Birds came out in 415 B. C. Mr. Paley speaks of this phrase as new in the time of Plato's literary activity.)

276 C. (The passage speaking of pen and ink, already quoted.)

Theaet. 152 A. Σωκ. φησὶ γάρ που πάντων χρημάτων μέτρον ἄνθρωπον εἶναι. . . ἀνέγνωκας γάρ που; Θεαίτ. Ἀνέγνωκα καὶ πολλάκις.

162 A. εἰ ἀληθὴς ἡ ἀλήθεια Πρωταγόρου, ἀλλὰ μὴ παίζουσα ἐκ τοῦ ἀδύτου τῆς βίβλου ἐφθέγξατο.

166 C. οὐ μόνον αὐτὸς ὑηνεῖς, ἀλλὰ καὶ τοὺς ἀκούοντας τοῦτο δρᾶν εἰς τὰ συγγράμματά μου ἀναπείθεις.

Soph. 232 D. Ξέν. Τά γε μὴν περὶ πασῶν τε καὶ κατὰ μίαν ἑκάστην τέχνην, ἃ δεῖ πρὸς ἕκαστον αὐτὸν τὸν δημιουργὸν ἀντειπεῖν, δεδημοσιωμένα που καταβέβληται γεγραμμένα τῷ βουλομένῳ μαθεῖν. Θεαίτ. Τὰ Πρωταγόρειά μοι φαίνει περί τε πάλης καὶ τῶν ἄλλων τεχνῶν εἰρηκέναι. Ξέν. Καὶ πολλῶν γε, ὦ μακάριε, ἑτέρων.

Polit. 293 A. τοὺς ἰατροὺς δὲ οὐχ ἥκιστα νενομίκαμεν, ἐάν τε ἑκόντας ἐάν τε ἄκοντας ἡμᾶς ἰῶνται, . . καὶ ἐὰν κατὰ γράμματα ἢ χωρὶς γραμμάτων, . . πάντως οὐδὲν ἧττον ἰατροὺς φαμεν κτλ.

Parmen. 128 D. διὰ τοιαύτην δὴ φιλονεικίαν ὑπὸ νέου ὄντος ἐμοῦ ἐγράφη, καί τις αὐτὸ ἔκλεψε γραφέν, ὥστε οὐδὲ βουλεύσασθαι ἐξεγένετο, εἴτ' ἐξοιστέον αὐτὸ εἰς τὸ φῶς εἴτε μή.

In these passages we see that books were so common in Plato's time that not to know the contents of a certain one would prove a man deficient in education,—that they were put before schoolboys to learn lessons out of,—that particular ones were read again and again by the same person,— that there were books on rhetoric, on the uses of salt, on cookery,

on medicine, on wrestling, and, in a word, on all arts,—
that once a book was stolen and circulated while the author
was still deliberating about publishing it,—that a man over-
heard another reading from a book and immediately got hold
of the book to read it for himself. If now the use of books
was so general in all circles of life in Plato's time, the first
thirty or forty years after 400 B. C., and if, as we have previ-
ously seen, mention of reading and writing, of tablets, papyrus,
and parchments goes back to about 450 B. C., and the men-
tion of books and of book-writers (copyists) and book-selling
comes along between 420 and 405 B. C., can it be supposed
that so quick-witted a people as the Athenians, so interested
especially in every stimulus to mental activity, failed to see
the capabilities of this contrivance and to make use of it in
that earlier period?

I may be permitted in conclusion briefly to restate the
evidence as to that earlier period. We have in Pindar before
450 B. C. a metaphor drawn from the arts of writing and
reading. We have in Aeschylos, before 460 B. C., repeatedly
the metaphor from writing, and once a mention of tablets and
of papyrus. We have in Herodotos, before 425 B. C., frequent
reference to writing on papyros, and once a recognition of that
as the usual material for writing, occasionally supplemented
by parchment. We have abundant fragments of Hekataios
(540–480 B. C.) and other early historians, in a style of
composition that forbids the idea of oral transmission. We
have from the comic poets Kratinos (before 420 B. C.), Eupolis
(before 412 B. C.), and Plato (probably before 405 B. C.),
fragments containing mention of book-writing, paper, and
book-selling. We have from Aristophanes (in plays down to
405 B. C.) reference to books as used by authors and readers,
and consulted by his own audience. We have in Thukydides
(probably before 405 B. C.) reference to the works of his
predecessors implying knowledge of their contents on his part,
and a suggestion that other historical inquirers would consult
his own work as he had theirs. Finally we have in Xenophon
(in reference to a time before 400 B. C.) mention of books as
read among a company of friends, as bought by a collector of

a library, and as exported to the shores of the Euxine sea. Now in view of this evidence, recognizing the fragmentary character of the remains we have of the literature of the fifth century before Christ, are we not justified in holding that the use of writing on papyrus for the purpose of preserving and multiplying copies of works of literature began as early as the middle of that century and rapidly grew to be a familiar matter of common life before its end?

It will be observed that I have confined myself to the production of the evidence attainable on my subject with only the necessary explanation of it. My purpose has been simply to bring together all the passages which I could find containing real evidence, in the hope that the collection, not elsewhere made so far as I know, might be of service to any one wishing to ascertain the facts.

IV.—*The Declension of the Definite Article in the Cypriote Inscriptions.**

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The riddle of the Cypriote Inscriptions, up to this time, cannot be said to have been completely solved. Not to mention particular knots that occur in sundry inscriptions whose purport is well known, or those places where no final test has given the last word to the discussion, there remain a few inscriptions whose general purport is still a puzzle, some whose characters have not been made out, and some which, though every character is known, refuse to yield any intelligible combinations. Chief of these are (1.) the longest inscription in the Cesnola collection, in part quite plain, but presenting some unique difficulties, though there is scarcely a doubt as to the reading

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* In this article the names 1. of the *cases* are abbreviated by their initials in capitals (N. G. D. A.); designations 2. of *number* (s. p.), and 3. of *gender* (m. f. n.), by their initials in small letters.

of any character; (2.) The Naked (or Bearded) Archer
inscription of the British Museum, which, in spite of Dr. W.
Deecke's attempt published in the Athenaeum of May 22, 1880,
and thought by him a complete success, is yet a problem to be
solved, since his reading depends upon the arbitrary forcing
of several characters to read what they demonstrably cannot;
(3.) one other important inscription in the British Museum,
which is still the subject of discussion, though parts of it are
plain; and (4.) a long inscription in the new Cesnola collec-
tion, still unread, though it will probably yield to perseverance,
and gives promise of solving finally one riddle; with (5.)
some minor ones in nearly the same state as the last.

Thus any attempt to construct a grammar or vocabulary of
the language, or writing, must still be only tentative, and
subject to correction.

The Cypriote syllabary consists of characters representing
open syllables only. Of these, five represent the simple
vowels, *a, e, i, o, u*, with no distinction between long and
short. The others represent a single consonant followed by a
vowel; with no distinction between smooth, middle, and
rough in the consonants, and no distinction between long and
short in the vowels. Thus the same character stands for κε,
γε, χε, κη, γη, χη. As far as thus discovered, the syllabary is
complete for the consonants *k, t, p, l, r, m, s;* that is, it has a
character for each of these consonants in combination with
each of the five vowels. The *n* series lacks only *nu;* the *z*
series lacks *zi, zo, zu*, and the syllable *ze* rests on only one
example, and therefore only on probable conjecture. The *y*
or *i*-syllables (for the writing has a *yod mobile*, or consonant)
lack the *io* and *iu*, perhaps as not required by the language.
The digamma or *w*-syllables, lack *wi* and *wu*. Thus, in
theory, the syllabary is nearly complete. There is one other
character, read by Deecke, Siegismund, and myself as *xe*,
because, though thus an anomaly in the system of writing, it
appears to have no other Greek equivalent. For what we may
call the same reason, Dr. Ahrens reads it as equivalent to a
vowel with the Greek *sampi*, or the Hebrew *shin*. According
to either view the character is an anomaly in the structure of

the syllabary; and so, for that matter are the *z*-syllables, unless we abandon the idea that the ζ was in any sense a double consonant. With the exception of this character for *ze* or *she*, to speak provisionally, the Greek double consonants are represented in the Cypriote writing by two characters.

Since the language, so far as deciphered, is Greek, the analogy of ordinary Greek cannot be disregarded in transliterating Cypriote. Yet in treating Cypriote as a system by itself—a procedure to which it seems fairly entitled—there is obviously much liberty or play allowable in the choice between a long or a short vowel, as well as in the choice between a smooth, a middle, or a rough mute. How far dialectic analogy may or must curb this liberty is a thing obvious enough in many cases, but in other cases quite as obscure. It does not yet appear at what point it is proper to make the choice in the case of the vowels, especially. The transliterator feels that the strictest truth both allows and compels him to adopt the Roman vowel, whose quantity has no visible ear-marks, even at the risk of being thought ignorant of Greek dialects. Moreover, the Cypriote writing has contributed enough in other respects to the knowledge of very ancient Greek peculiarities to justify us in keeping this door open for further light in that particular direction.

As this is not a treatise on the Cypriote epigraphy, it is not necessary to speak at length of the principles of the combination of two characters (or of three, as sometimes happens) into one syllable. These are generally plain enough, and to be understood as a matter of course. It may be mentioned, however, that a word, especially an elided proclitic, has sometimes its end in the middle of a character, so to speak. Also, the *n*, or Greek *ν*, is often not written, and has to be understood. Whether it was pronounced or not in the spoken language, or whether it had passed into an unwritten nasal, or whatever else had become of it, it is not to our purpose here to inquire. The writing never doubles a consonant. *Iota* adscript, answering to *iota* subscript in Greek, is sometimes written and sometimes not. The *e* vowel is often replaced by the *i* vowel. When a word ends in a consonant,

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its final syllable, unless serving also for the opening syllable of the following word, regularly ends in a character having the *e* vowel. Of course no breathings occur.

Another element perhaps to be taken into account in transliterating, is the apparent versification of some of the inscriptions. This has been assumed and practically insisted on to an extravagant extent by a late writer, Richard Neubauer, in one of the *Commentationes Philologicae in Honorem Theodori Mommseni,* Berlin, 1877; but as each writer is apt to assume his own system of versification, and construct his syllables accordingly, this element has been of no service. From its nature it can scarcely be a guide, except in determining a doubtful place when other considerations determine all the surroundings; and even then this method is chargeable with imposing foreign laws where truth requires only the statement of those which certainly exist. There is nothing in the rest of Neubauer's matter of a grade high enough to warrant our following his fancy in this respect.

In the following, only those conclusions will be stated concerning which there remains no reasonable doubt. Yet in every case the possibility of modification in a future light must be allowed.

In gathering up the facts respecting the declension of the definite article in the Cypriote writing, it will be more convenient to take each inscription by itself. The first that claims attention is the Bronze Tablet of Dali, now in the De Luynes collection in the Bibliothèque Nationale in Paris. The following list gives each case of the article's occurrence, with the number of the line in which it occurs. Two or three of the cases given may be classed rather as under the head of relative pronoun than as article; but they are retained because one of them is on the border line, and the others barely step over it; and even so the form is that of the Greek article, and not of the relative ὅς. The pronoun ὅδε occurs several times in the inscription, but it is not convenient to notice it in connection with the article, as it requires an additional explanation of the principles of the writing. The following is the list:

Line]   I.   *Occurrence of the Definite Article in the Bronze Tablet.*

(1.) *ta.* A.s.f., agreeing with πτολιν. Final *n* not written.

    to. i. D.s.n., agreeing with ϝετει, after preposition i[ν]. ι adscript written.

    to. G.s.m., agreeing with proper name. Its noun is the next word, and begins with *O.* No elision.

(2.) *a.* N.s.f., agreeing with πτολις.

    to. no. A.s.m., agreeing with proper name. The *o* of the final *no.* begins the next word, the proper name aforesaid.

(3.) *to. ni.* A.s.m., agreeing with ιιατηραν, which immediately follows, and whose initial *i* is the vowel part of the *ni.*

    to. se. A.p.m., agreeing with κασιγνητος. (-τος is preferred to -τως.) Final consonant regularly the *se.* character.

    to. se. A.p.m., agreeing with ἀ[ν]θρωπος.

    to. se. A.p.m., with participle after preceding noun.

    ta. i. D.s.f., agreeing with μαχαι, after preposition i[ν]. ι adscript written.

(4.) *a.* N.s.f., agreeing with πτολις.

(5.) *to. i. se.* D.p.m., agreeing with indirect object κασιγνητοις.

    to. G.s.m., agreeing with μισθων, after prep. ἀ[ν]τι.

    ta. G.s.f.; probably for *ta. se.*, analogous to *ka.* for *ka. se.* Agrees with ὑχηρων.

    to. ι. D.s.m., agreeing with ϝοικωι after preposition ἐξ.

(6.) *to. i.* D.s.m., in adjective phrase belonging to last noun.

    ta. i. D.s.f., agreeing with πτολιι, after prep. ἐξ.

    to. G.s.m., agreeing with ἀργυρων, after prep. ἀ[ν]τι.

(7.) *to.* G.p.n., agreeing with partitive gen. ταλα[ν]των. It immediately precedes its noun (which commences with a dental mute), and final *n* or *ne.* is suppressed.

    a. N.s.f., agreeing with πτολις.

    to. i. se. D.p.m., same as l.(5.).

(8.) *ta. i.* D.f.s., agreeing with ζαι (= γη), after ἀπυ (= ἀπο). ι adscript written.

    ta. i. Same as last, in adj. phrase following ζαι.

    ta. i. Same as last.

    to. i. D.s.m.(?), agreeing with ῥωνι (new word) after participle of nearness.

    to. i. Same as last, in adj. phrase after ῥωνι.

    to. A.s.m., agreeing with and immediately preceding χωρον. Final *n* or *ne.* suppressed.

(9.) *to. ni.* A.s.m., in adj. phrase after χωρον above. The *i* of the last syllable is the preposition i[ν].

    to. i. D.s.n., agreeing with ἐλει, after the preceding preposition i[ν], just mentioned.

    to. A.s.m. in adj. phrase limiting χωρον above. It precedes a palatal mute, and the *n* or *ne.* is suppressed.

    ta. A.p.n., agreeing with τερχνια (new word).

    ta. A.p.n., following the last mentioned noun in adj. phrase.

(10.)   *to. se.*   A.p.m., agreeing with κασιγνητος.

(11.)   *to. se.*   A.p.m., agreeing with παιδας.

    to.   G.p.m., agreeing with and immediately preceding παιδων. The final *n* or *ne.* is suppressed.

    to. no.   G.p.m., agreeing with proper noun, of which the *o* in this syllable *no.* is the beginning.

    to. i.   D.s.m., agreeing with χωρωι, after prep. ἐξ.

(12.)   *o.*   N.s.m., subject of a verb, and used like a relative pronoun.

    to. i. se.   D.p.m., agreeing with κασιγνητοις.

(13.)   *to. i. se.*   D.p.m., agreeing with παισι.

    to. na.   A.s.m., agreeing with ἀργυρον, of which the *a* in *na.* forms the first letter.

(14.)   *to.*   G.p.m., agreeing with and immediately preceding κασιγνητων· The final *n* or *ne.* is suppressed.

    to. na.   G.p.m., following the last noun in adj. phrase. The *a* in *na.* forms first letter of next word.

(15.)   *a.*   N.s.f., agreeing with πτολις.

    ta.   G.s.f., same as in l. (5.).

    to.   G.s.m., same as in l. (5.).

(16.)   *a.*   N.s.f., agreeing with πτολις.

(17.)   *to.*   G.s.m., agreeing with ἀργυρω.

    ta. i.   D.s.f., after ἀπυ, agreeing with ζαι.

    ta. i.   D.s.f., in adj. phrase following last.

    ta. i.   D.s.f., in adj. phrase following last.

(18.)   *ta. i.*   D.s.f., agreeing with πεδιαι, after prep. ἰ[ν].

    to.   A.s.m., agreeing with χωρον and immediately preceding it. The *n* or *ne.* is suppressed.

    to.   A.s.m., in adj. phrase following last. Precedes a palatal mute, and *n* or *ne.* is suppressed.

    ta.   A.p.n., same as in l. (9.) first time.

(19.)   *ta.*   A.p.n., same as in l. (9.) second time.

    to.   A.s.m., in adj. phrase following χωρον. It immediately precedes a labial mute, and the *n* or *ne.* is suppressed.

    to.   Probably G.s.m., agreeing with proper name; but it may be A.s.m. with final *n* or *ne.* suppressed, before a dental. In that case it would agree with χωρον in adj. phrase following.

(20.)   *ta. ni.*   A.s.f., agreeing with ἰερειιαν, after prep. πος. The *i* in *ni.* forms first letter of this noun.

    ta. se.   G.s.f., agreeing with 'Αθανας.

    to.   A.s.m., agreeing with and immediately preceding καπον. The *n* or *ne.* is suppressed.

    to. ni.   A.s.m., in adj. phrase following καπον above. The *i* in *ni.* is the prep. ἰ[ν].

(21.)   *to.*   A.s.m., used as relative pronoun, with καπον as antecedent. It precedes a dental, and the *n* is suppressed.

    o.   N.s.m., agreeing with a proper name or patronymic.

    to.   A.s.m., in adj. phrase following καπον understood; but may also be construed as a relative pronoun. It precedes a dental, and *n* is suppressed.

(22.) *to. no.* A.s.m., agreeing with υἱον understood. The *o* in *no.* is the first letter of next word.

    ta. A.p.n. Same as l. (5.) first time.

    ta. A.p.n. Same as l. (5.) second time.

(23.) *to. se.* A.p.m., agreeing with παιδας.

    to. se. A.p.m., in adj. phrase following the last.

(24.) *ta. i.* D.s.f., agreeing with ζαι, after prep. ἐξ.

    to. i. D.s.m., agreeing with καπωι, after prep. ἐξ.

(25.) *o.* N.s.m., used as pronoun, relative, subject of verb.

    to. i. se. D.p.m., agreeing with indirect object παισι.

    to. na. A.s.m., agreeing with ἀργυρον, of which the *a* in *na.* forms the first letter.

(26.) *ta.* Probably G.p.f., agreeing with, and immediately preceding δαλτων (= δελτων); and the *n* suppressed. Another, less probable, opinion makes it A. p. n., agreeing with Ϝεπυα.

    ta. A.p.n., agreeing with Ϝεπυα.

(27.) *a.* N.s.f., agreeing with πτολις.

    ta. A.s.f., agreeing with and immediately preceding θιον (= θεον or θεαν) after prep. ἰ[ν]. The *n* is suppressed.

    ta. na. A.s.f., agreeing with 'Αθαναν, in apposition with θιον just above. The *a* in *na.* is the first letter of 'Αθαναν.

    ta. ne. A.s.f., in adj. phrase after the last. It is written in full. The next word commences with a labial, but is a preposition.

(28.) *ta. se.* A.p.f. agreeing with Ϝρητας (= ρητρας).

(29.) *ta. se.* A.p.f., agreeing with Ϝρητας.

    ta. sa. ke. A.p.f., agreeing with ζας (= γας) The words here are τάς γε; and the character *sa.* is regular. If it were *ta. se. ke.* the reading would be τασεκ or τὰς ἐκ, or τὰς γἐ.

(30.) *to. se.* A.p.m., agreeing with καπος.

    o. i. N.p.m., agreeing with παιδες.

    to. G.p.m., agreeing with and immediately preceding παιδων. The *n* is suppressed.

    o. i. N.p.m., agreeing with παιδες.

(31.) *o. i.* N.p.m., used as relative pronoun, subject of a verb.

    to. i. D.s.m., agreeing with ρωνι, dat. of place in which.

    to. i. D.s.m., in adj. phrase following the last.

Including the few cases where the article passes, or seems to pass, into the relative pronoun, this inscription presents upwards of ninety occurrences of the article. To make clear the cases of its occurrence as a relative, the following example (l. 25) will serve: it reads ὁ ἐξορυξε πεισει; which Ahrens renders into "the common" by "ὃς (ἂν) ἐξώσῃ τίσει." Here, if the ὁ were an article simply, we should have a participle (*e.g.*, ἐξορυξας) in place of ἐξορυξε. But neglecting the pronominal

use, as well as other doubtful cases, we may sum up as follows:

The N.s.m. occurs uniformly in this inscription as *o.*, which may be represented by the ordinary Greek ὁ. As a relative it is perhaps to be transliterated as ὅ.

The N.s.f. is uniformly *a.*; the Greek ἁ.

The N.s.n. appears not to occur in this inscription.

The G.s.m. is uniformly *to.*; the Greek τῶ.

The G.s.f. occurs once as *ta.se.*, that is, τᾶς; and twice as *ta.*, each time with a noun of the second declension fem. in -ων, and immediately preceding ἰ. It is probable that this is a shortened form for *ta. se.*, or τᾶς. Analogous is the occasional contraction of *ka. se.* (κας, = καί) into *ka.* The G.s.f. is therefore τᾶς or τᾶ[ς].

The G.s.n. appears not to occur in the inscription.

The D.s.m. occurs often, and uniformly as *to.i.*; that is, τοῖ, (τωῖ,) or τῷ. In other inscriptions the *i.* is often omitted, according to the general practice of writing. But the omission is demonstrably only in the writing, and is not a variation of the form.

The D.s.f., also occurs often, and uniformly as *ta.i.*; that is, ταῖ or τᾷ. This also, in other inscriptions, sometimes omits the *i.*

The D.s.n. occurs just once. It is exactly like the masc., *to.i.*; that is, τοῖ, (τωῖ,) or τῷ.

The A.s.m. occurs many times. It occurs as *to.na.*, *to.no.*, *to.ni.*, and *to.* In the first three cases the vowel portion of the second syllable is the beginning of the next word, which is commonly (but not always) the word to which the article belongs. In the last case, the *n* is suppressed; but in each occurrence the following word commences with a mute. Five instances of this occur before a palatal, one before a dental, and two before a labial. Generally, too, the succeeding word is that to which the article belongs. The form is therefore clearly τόν or τό[ν]; but whether the *n* was sounded or not in cases where it is suppressed, is a question that cannot be discussed here.

The A.s.f. occurs a few times; once as *ta.ne.*, once as *ta.ni.*, once as *ta.na.*, and twice as *ta.* The first is the full form, and

is to be transliterated as τάν. In the next two cases, the vowel of the second syllable commences the next word; and in the last the *n* is suppressed; once before a labial mute commencing the next word, and once before a dental. Its form is therefore τάν, or τά[ν].

The A.s.n. appears not to occur in this inscription.

The N.p.m. occurs a few times; though in one case it fills the office of a relative pronoun. It is uniformly *o.i.*, that is, οἱ; and in the last case, perhaps οἵ.

The N.p.f. and n. do not appear to occur in the inscription.

The G.p.m. occurs a few times. It occurs as *to.no.*, *to.na.*, and *to.* In the first two cases the last vowel commences the next word; in the last case the *n* is suppressed, the next word commencing with a labial or palatal mute, and being the noun to which the article belongs.

The G.p.f. occurs once (l. 26.), as *ta.* The *n* is suppressed before a dental mute which commences the following word. The form is therefore τᾱ[ν] or τᾱν. This case has also another less probable solution. The one here adopted seems to be the only one which avoids all the difficulties.

The G.p.n. appears not to occur in the inscription.

The D.p.m. occurs several times; always as *to.i.se.*, or τοῖς. In each case the word following commences with a mute. There seems to be no reason why the last syllable should not be *sa.*, *so.*, *si.*, or *su.*, when the following word should commence with the appropriate vowel; though the analogy of the A.p.m. points differently.

The D.p.f. and n. do not appear to occur in the inscription.

The A.p.m. occurs several times, and always as *to.se.;* that is, τός (or τώς). In one of these cases the following word commences with the vowel *a.*

The A.p.f. occurs twice; once as *ta.se.*, the next word commencing with a digamma, or *w* syllable; and the other time as *ta.sa.ke.*, the last syllable being the enclitic γε. By the rules of combination, *sa.* here is regular; but it shows that the two words were looked upon as one, at least for purposes of pronunciation. The form is therefore τάς; while *ta.sa.ke.* is τάςγε or τάς γε; but the γε could not have had

accent as a separate word. The combination *ta.se.ke.* would have been τάς ἐκ or τασεκ; or ρὰς γέ or ρὰς ἔκ, if either is conceivable.

The A.p.n. occurs several times, and always as *ta.;* that is, τά. Twice the next word begins with an *e* vowel, once with the digamma, and in other cases with a mute. In other inscriptions there is a plain elision; and then the *a* coalesces with the initial *a* of the next word; but no such case occurs in this inscription.

From the Bronze Tablet, therefore, the declension can be made out as follows:

	SINGULAR.			**PLURAL.**		
	Masc.	**Fem.**	**Neut.**	**Masc.**	**Fem.**	**Neut.**
N.	ὁ	ἀ	—	οἱ	—	—
G.	τῶ	τᾶς, τᾶ[ς]	—	τῶν	τᾶ[ν]	—
D.	τοῖ(τῷ)	ταῖ, τᾳ	τοῖ(τῷ)	τοῖς	—	—
A.	τόν	τάν	—	τός, τώς	τάς	τά.

Enough appears to show the coincidence throughout with the Doric; and it would be easy to fill the blanks from analogy. But some of the gaps can be filled from the other inscriptions, to which we will now proceed.

II. *The Bilingual Tablet of Dali.*

This tablet is now in the British Museum. It is a fragment of a marble pedestal upon which was doubtless once a statue to Apollo Amyclaean, the Phoenician Resheph Mikal. The Cypriote portion consists of four lines. The article occurs as follows:

(1.) Not once; but the line is fragmentary.

(2.) *to.* G.p.f. Its word, immediately following, and a partitive genitive, commences with a labial mute; and the *n* is suppressed.

  to.na. A.s.m., agreeing with and immediately preceding ἀνδρια[ν]ταν. whose initial vowel is that of the *na.*

  o. N.s.m., just preceding and agreeing with ϝαναξ.

(3.) *a.* N.s.m., agreeing with and preceding a proper name which commences with ᾽Α.

  to. D.s.m., agreeing with proper name. ι adscript is omitted, but the case is marked by the termination of its noun.

  ta.se. A.p.f., agreeing with and immediately preceding εὐχωλάς. The *e* in the *se.* does not form part of the next word.

(4.) The article does not occur in this line.

This inscription entirely confirms the results of the first, and adds two things. (1.) It gives τῶν as an additional form for the G.p.f.; and (2.) it gives an instance of the D.s.m. written simply as τῶ, without the ι adscript. It hints that this last had disappeared in pronunciation. In the A.p.f., moreover, it shows that it could be written in full without the vowel sound of the final *se.* affecting at all the writing of the next word; and as far as it teaches anything, seems to show   •
that this syllable, when final, was disregarded as to its vowel element. Analogous is silent final *e* in English and French.

III. The next inscription is the longest one in the Cesnola collection. Though not completely unriddled, its teaching as to the article is clear. It contains it only once (in l. 4), in the neut. pl., probably acc., and is written *ta.* The next word, not its noun, but yet presenting a case where elision would be allowable in Greek, begins with *a.*, and yet is written separately. It may turn out that this *ta.*, or τά, is N.p.n.

IV. In the first Cesnola collection (old number, 256) is another inscription, never yet correctly published, consisting of a fragment of two lines. In l. (2.) occurs *ta.*, A.s.f., with *n* suppressed, before its noun which commences with a digamma. This gives us τά[ν]. This inscription seems to hint that the *n* was suppressed in the writing, and not in the pronunciation; for the pronoun τά[ν]δε and the adj. νεα[ν] follow in the same construction, both with *n* suppressed.

V. The inscription on a bronze votive implement in the DeLuynes collection in the Bibliothèque Nationale in Paris contains the article twice in its first line, both D.s.f. The first agrees with a proper name, and the other is in an adj. phrase following the same. The first is written *ta.*, and the second *ta.i.* This seems to leave it indifferent whether the D.s.f. should be written with or without ι adscript. In the first case the article precedes a word which should begin with *a*, but which a probable false stroke of the engraver has made to read *e.* The second immediately precedes an initial *e.*

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VI. The inscription on a bronze votive spoon in the British Museum has the article twice; both in D.s.f., and both written *ta.i.;* that is *ταῖ* or *τᾷ.* The reading that includes them is this: *ἰ[ν] ται θιοι ται Γολγιαι.*

VII. One doubtful case occurs on an inscription of three lines in the Cesnola collection; where the article apparently occurs twice in l. (1.) as *to.* Whether nom. or acc. neut. sing., or gen. sing. masc. or neut., or gen. pl. masc. or neut., is not yet clear. This is No. 29,.Pl. vii, in my article, Jour. Am. Or. Soc., x. 201 ff.

VIII. In an inscription from Soloi, published by De Vogué (Mélanges, Pl. iv), now in the Louvre at Paris, the article occurs in l. (1.) in the N.s.m., as *o,* immediately before its noun, which commences with the digamma.

IX. On a British Museum inscription of two lines, record‐ing a votive offering to Apollo Hylates, the article occurs three times in the first line; *to.i.,* and *to.,* both in D.s.m.; the first preceding and agreeing with *θεοι* or *θεωι,* the second following in an adj. phrase. The third occurrence is N.s.m., with a proper name following. It is written as *o.* The inscription is published by Deecke and Siegismund as their No. 7.

X. In another Cesnola inscription (Jour. Am. Or. Soc., x. 201 ff., No. 9 Pl. ii), the article occurs once in line (1.) and once in l. (2.), both D.s.m.; the first is written *to.i.,* and the other *to.* The one precedes and the other follows the dative *θεω,* which latter is written without *ι* adscript.

XI. Another of the same (*supra,* No. 24 Pl. vi), contains the article in l. (1.) in D.s.m., as *to.i.* In the next line is a doubtful *ta.* for the same case; which may be a stone-cutter's mistake for *to.* However, it may not be the article at all; or there may be an elision.

XII. In another of same (*supra*, No. 23, Pl. vi), in l. (3.), occurs the D.s.m. written simply as *to.;* its noun immediately following being marked as dat. by termination.

XIII. Another of same (*supra*, No. 31, Pl. viii) contains the article and a Cypriote enclitic written *ta.sa. pa.i.;* that is, τάς ται. Here *sa.* is regular, to mark the union of the two words, or their close connection. The article seems here to have the force of a relative pronoun.

XIV. An inscription of four lines found at Pyla, still, so far as I know, in Cyprus in possession of D. Pierides, contains in the third line the article in the D.s.m., written simply as *to.* The mutilation of the stone cuts off the termination of its noun; but there is every reason to believe that it was marked as dative by its termination.

XV.–XXII. Eight inscriptions found at Kythrea by Gen. di Cesnola just before leaving Cyprus for the last time. These are not yet adequately published; though the chief one is figured in my article in Scribner's Monthly for June, 1880. That contains all that occurs in the others, so far as the article is concerned, and more besides. The others are mere repetitions. In this the article occurs as follows:

(1.) *ta.se.* G.s.f., agreeing with and just preceding Παφιας.
    to. G.s.m., immediately preceding its noun, which commences with *i.*
(2.) *ta.i.* D.s.f., agreeing with and just preceding Παφιαι.
(3.) *ta.i.* D.s.f., agreeing with and just preceding 'Αφροδιται.

XXIII. A bilingual or digraphic inscription, in possession of D. Pierides, in Larnaka, Cyprus, contains two Cypriote lines, in which the article occurs as follows:

(1.) N.s.m., written as *o.*, before and belonging to noun beginning with *so.*
    N.s.m., written as *o.*, before and belonging to noun beginning with *pa.(ba.).*
(2.) D.s.f., written *ta.*, before and belonging to a proper name beginning with *a.*

XXIV. Inscription De Vogué, Mélanges, Pl. iii, 2, a, contains in the second line the article in G.s.f., written *ta.se.,* before its noun commencing with the digamma. In the third line occurs the G.s.m., written *to.,* before its noun commencing with *i.*

XXV. De Vogué, Mélanges, Pl. iii, 2, b, c, contains the article in G.s.f., written as *ta.,* before its noun commencing with the digamma. It is another case of the contraction for *ta.se.*

XXVI. De Vogué, Mélanges, Pl. iv, 5, has in first line the N.s.m., written as *o.* before its noun commencing with *i.* In the second line occurs the G.s.f. written *ta.se.,* before its noun commencing with the digamma.

XXVII. XXVIII. These two inscriptions, intended as duplicates, at Alonia tou Episcopou, near New Paphos, on the artificial grotto dedicated to Apollo Hylates, though obscure and fragmentary, are very interesting. One is outside, over the outer doorway; the other is within, by the side of the inner doorway leading to the second apartment. The first is written in four lines, the second in two. Taking the first to represent both, its first line contains *o.,* N.s.m., preceding its noun, which is a proper name commencing with *a.* The second line contains *to.,* A.s.n., preceding its noun which commences with *se.pe.* ($= \sigma\pi\epsilon$). The second inscription repeats the N.s.m. *o.* in an adj. phrase following the noun; at a place where the first inscription is mutilated. These two inscriptions give the first clear example thus far of the A.s.n.; which is *τό.*

XXIX. To these add the inscriptions of the gold armlets of King Ethevander found at Curium, and now in the Metropolitan Museum of Art with the other Cesnola collections, where the G.s.m. occurs in each as *to.,* before a proper name commencing with a labial; and we have before us all the inscriptions which at present are worth the trouble of searching for this special purpose. Some cases, as well as sundry other

inscriptions, are omitted; because, though interesting, they are more or less doubtful. Moreover, I have mentioned none of which I have not seen and studied the original inscription itself.

The whole number here considered amounts to twenty-eight; or in number (excluding coins), about one-seventh of the whole; though in quantity of material, much more than six-sevenths of all the Cypriote writing known. In most of the inscriptions the article does not occur at all; while the pre-dominance of the dat. sing., masc. and fem., is explained by the fact that most of the inscriptions are votive, and give the article along with the proper or attributive name of the divinity to whom the offering is made.

It will be observed that for this particular discussion, as well as for the general subject of the writing, the Bronze Tablet furnishes far more material than all the other sources united. After the declension of the definite article has been deduced from that, the rest do little more than confirm inferences therefrom which are so inevitable that suspicion would attach to anything contradictory. The gaps actually filled by other inscriptions thus far appear to be nothing more than the A.s.n., and a G.p.f. in $\tau\tilde{\omega}\nu$. The material which *may* fill other gaps is not yet demonstrated to do so. The shorter inscriptions add more to show the principles of the writing, especially of the combination of the characters in particular cases, than to fill out the declension table.

The following is the declension of the article as thus far shown to occur in the inscriptions:

	SINGULAR.			PLURAL.		
	Masc.	Fem.	Neut.	Masc.	Fem.	Neut.
N.	ὁ	ἁ	—	οἱ	αἱ	—
G.	τῶ	τᾶς, τᾶ[ς]	—	τῶν	τᾶ[ν], τῶν	—
D.	τοῖ (τῷ)	ταῖ (τᾷ)	τοῖ (τῷ)	τοῖς	—	—
A.	τόν	τάν	τό	τός (τώς)	τάς	τά.

The cases which do not actually occur (though some really may, unrecognized or undemonstrated) are the nom. and gen. sing. neut., the dat. fem. pl., and the nom., gen., and dat. pl. neut. As the acc. neut., sing. and pl., can scarcely fail to be the same with the nom.; and as the gen. and dat. neut. can

scarcely fail to be the same with the corresponding cases of
the masc., there remains only the dat. pl. fem. to fill in from
analogy outside of that furnished by the writing itself.   But
of that no one can feel a doubt.   The declension, so far as
made out from undoubted, existing examples, coincides exactly
with that exhibited in the Doric dialect.

V.— *Observations on Lucian.*

By JULIUS SACHS, Ph.D.,

NEW YORK CITY.

The new avenue of philological communication which the
initial numbers of the Philological Journal have opened seems
to me to react in more than one way upon the character of
these our annual meetings; since they have ceased to be our
only means of presenting the results of our individual inqui-
ries, they will probably assimilate themselves more and more
to the model of the German Philological meetings.   In addition
to the final maturity of linguistic research that may challenge
the world's criticism, the scholars of Germany very frequently
test in these gatherings the strength and coherency of their
private speculations; in this, the common workshop as it were,
the crucial test is most readily applied to each new hypothesis,
and under the investigation of unbiased critical minds the
stability of arguments is best confirmed or else opportunely
questioned.   Starting from these premises I venture to propose
some thoughts, elicited by a study of several of Lucian's
writings.   From a general conception of the literary, social,
and moral atmosphere of Athens and Rome in the 2d century
p. Ch. it is necessary to gather that experience of the temper
of our author, which may serve as the common background
of his artistic labors.   So much had been effected by the older
commentators and writers of the literary history of this period;
but then the elusive quality of Lucian's mood, the subtle play
between wit and seriousness, make it doubtful at the end of

each treatise, whether we are to adopt the superficial line of argument as the end and aim of his effort or must delve lower ; for we may perchance find a substratum of thought, which transfigures the commonplace of the apparent argument, and introduces the ἦθος of a deeper philosophic reflection. From the analysis of *each* treatise must be evolved the mental traits, out of which, however complex, the personality of Lucian must finally be substantiated and reduced to a simpler and coherent form. This process as the only satisfactory one, however slow in its workings, Director Schwarz has applied in the course of the last seventeen years to a number of Lucian's dialogues.

But in such a detailed scrutiny of the individual treatise there seemed to me at the outset to lurk a danger of great import, to wit, that complete search after truth in the one treatise might find an offset in too cursory a survey of the bearing of another, until *its* turn for exhaustive treatment had arrived ; and the inconsistencies arising from such a method have awakened in me the conviction that it were more in consonance with the advance in Lucianic criticism to attempt the solution of the many vexed problems from a consideration of the writings by *groups;* let the philosophic tenets, the ethic standards, the artistic criteria, the rhetorical practices be culled separately, and the sympathetic student of Lucian will not find it impossible to gather all these experiences into a living embodiment of an essentially artist-nature, which would then stand permanently for our ideal of the teacher of Samosata.

Let us take up a special case. Who exerted a decided influence on this brilliant, yet thoughtful representative of later Greek speculation ? Nigrinus and Demonax conjointly corresponded to Lucian's ideal of a true philosopher's character, say many of the best commentators, among them such authorities as Jacob, C. F. Hermann, Preller. Of the existence of both philosophers the writings of Lucian, the Νιγρῖνος and Δημών-ακτος βίος respectively convey our only information to us ; now the *Nigrinus* Anton Schwarz after a careful analysis summarizes as a satire, a ridicule of the pretensions of philosophers' (Nigrinus as type) that they could create conviction in the minds of their hearers by a single rhetorical effort. I confess

that his argumentation appears, on the whole, quite satisfactory
to me. It lacks conclusive force however in one single point,
to which I should like to invite your attention. Lucian sends
to Nigrinus with an exceedingly complimentary prefatory
letter a reproduction of a discourse which Nigrinus pronounced
in his presence on the corruption of the Romans of his day,
and which convinced him (Lucian) of the superior mental
qualities of the philosopher. The discourse of Nigrinus is
introduced by a conversation between Lucian and his friend;
and the latter finds Lucian so unusual in demeanor, so elated,
that he inquires into the cause. Lucian informs him that it
is due to the impression made by Nigrinus' discourse, which
he thereupon proceeds to give in full. Now the speech itself
with the dialogue that introduces it I could readily conceive
of as a refinement upon the Socratic method; instead of the
reductio ad absurdum that is clearly marked in the progress
of the Platonic dialogues (e. g. Gorgias, Theaetetus), we would
find quite in keeping with the spirit of a later age a more
artificial, or if you will have it, a more artistic method of
overthrowing the weak views of Nigrinus. The conviction
that the argument is a strained and unnatural one would
then force itself upon every intelligent reader and hearer,
and only the principal actor would appear from sheer conceit
not to see the unmeaningness of his own assumptions. Such
a development from the εἰρωνεία of the Platonic method,
though 1 cannot substantiate its existence as a feature of later
Greek dialectics, appears quite in keeping with the spirit of
literary ἐπίγονοι; it is even possible to go a step farther; recall,
if you please, those Platonic dialogues, in which, as in the
Cratylus, the logical deductions are seemingly left in abey-
ance; how often have ancient and modern expositors of
Platonic philosophy doubted to which side of the issue Plato
was ready to commit himself finally! In these dialogues the
first step toward this satiric envelopment of the dialogue
would be fairly marked. But I find an impassable difficulty
in the case of the Nigrinus in the introductory epistle addressed
to Nigrinus. Of its genuine character no editor has ever
entertained any doubt; it enters therefore into the scope

of our discussion on the same basis as the treatise itself. Divested of the proverbial and historical references that introduce and close it, its central thought is expressed in the following words : μόνην σοι δηλῶσαι τὴν ἐμὴν γνώμην ἐθέλω, ὅπως τε νῦν ἔχω καὶ ὅτι μὴ παρέργως πρὸς τῶν σῶν λόγων εἴλημμαι. ' I only wish to prove to you what opinion I now entertain and that I have not been superficially affected by your discourse.'

It is needless to say that for Schwarz and his views this statement ought to constitute the cardinal difficulty ; for, if genuine and sincerely meant, it disposes at once of Schwarz's theory, that the whole discourse is a huge joke at the expense of Nigrinus. Schwarz surmounts the difficulty with an ease altogether suspicious; "Diese Worte bekommen aber je nach der Anschauung des in Eitelkeit befangenen Philosophen oder des vorurtheilsfreien Lesers einen verschiedenen Sinn." Can we conceive that a man writes a parody on a philosopher's activity, so artfully devised, that its true character has escaped the critical faculties of generations of scholars, that he sends this treatise to the philosopher in question, accompanies it with a letter of hearty recognition, and yet at the same time wishes every other reader to recognize that there is not a candid statement in all that he has said ? The reader, free from prejudice, would methinks conclude otherwise; it is a preconceived notion that Nigrinus does not adequately represent Lucian's ideal of philosophy, that has led to this far-fetched conclusion. According to our opinion of the introductory epistle the whole treatise must be judged ; and I am free to confess that I consider it a straight-forward expression of a philosophic standpoint. I would go a step farther. Schwarz in a later treatise on the " Gallus " says of his earlier treatise on the Nigrinus, that he still maintains his views on its *general* purpose and period of composition, but is not ready to maintain every position therein indicated. It would not be surprising to me, if calmer reflection had made his earlier assumption appear too audacious. With this suggestion I proceed to another point.

Many commentators on Lucian, as has been previously stated, ascribe a prominent influence on the philosophic *habitus* of their favorite author to Nigrinus *and Demonax ;*

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the same general principles of a well conducted life appertain to both, the same tendency to eclecticism as a philosophic rule of conduct, rather than pronounced adherence to any school. To Demonax is ascribed the sentiment, ἐγὼ δὲ Σωκράτην μὲν σέβω, θαυμάζω δὲ Διογένην καὶ φιλῶ Ἀρίστιππον. It is quite another matter however to reason that because Nigrinus and Demonax were Lucian's types and standards of a noble, reflective life, his literary treatment of them should be similar. It would verily be γλαῦκ' Ἀθήναζε to cite instances in which the same writer according to his varying mood cultivates now the ornate, now the more sober narrative style; and yet this essential condition of the creative faculty *Sommerbrodt*, the well known editor of Lucian in the Weidmann collection, seems to have disregarded; in his general introduction he rejects the Δημώνακτος βίος as a genuine production of Lucian's, with the words: "eine stümperhafte characteristik" unworthy of the master of style. He makes no comments in defense of his abrupt condemnation, and yet it would have merited a fuller discussion, for Fritzsche, the editor κατ' ἐξοχήν of Lucian, unhesitatingly accepts the treatise. It cannot be because of any serious discrepancies in language between the wording of this treatise and the body of Lucian's writings, such a discrepancy as Guttentag has revealed in the *Toxaris*, where the awkward attempts at imitation make the difference of style only the more apparent; a survey of the style of the βίος fails to reveal any of those ineptitudes which might point to surreptitious authorship. The "blundering" quality of the description, as alleged by Sommerbrodt, must therefore appear from comparison with analogous works of our author, and such a work is preëminently that, in which he presents his other ideal philosopher, Nigrinus. Let us hear what he finds worthy of commendation in the treatise "Nigrinus": "its delicacy of observation and pregnancy in characterization." These are preëminently artistic qualities, but we may have *impressive* and *truthful* delineation of character, and yet not find these evidences of the artistic temper. And here we reach that distinguishing line, which, it seems to me, should settle the mooted question. The Νιγρῖνος is as

truly a piece of artist-work as any of the earlier Platonic
dialogues; subject-matter and form are of equal importance to
Lucian; in reproducing the contents of Nigrinus' discourse,
he wishes to show that it is the hand of a master in the
literary art that shapes the environments of the whole; it is
what the Germans are apt to call "ein literarisches Parade-
stück." How entirely different in intention and execution is
the βίος Δημώνακτος! That it must have been written at a
much later period than the Nigrinus, is manifest from this
fact: The discourse delivered by Nigrinus marks the begin-
ning of Lucian's philosophic studies; the βίος is composed
after the death of Demonax, of whose philosophic method
Lucian had gained intimate knowledge throughout a sympa-
thetic intercourse of many years. Immaturity of style is
therefore out of the question; the lack of elegance, the
unadorned presentation of the salient points of Demonax'
character will all explain themselves, if we remember that it
is a βίος. From the Alexandrine period on, the general
outlines of the βίος are definitely marked; the facts and
tendencies of a life are supplemented by a store of anecdotes,
illustrative of these facts and tendencies. According to the
skill of the author we must either content ourselves with this
scanty array, or else we find the theme appropriately intro-
duced, judiciously disposed, and harmoniously concluded;
and to this latter category we may fairly assign the biograph-
ical notice of Demonax, and credit Lucian with its composition,
unless arguments of far greater weight than those hitherto
advanced be adduced against his authorship.

VI.— *Virgil and Plato.*

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I.

Professor Sellar of Edinburgh in his excellent volume on Virgil, page 313, speaks of the three great passages of the Aeneid in which the action is prophetically advanced into the Augustan age. These are: Aen. I 223–296, Jupiter's consolation to the mother of Aeneas; VI 756–860, vision of Roman worthies destined to ennoble Roman history; and VIII 626–731, the shield of Aeneas, wrought by Vulcan. "These, better than any other passages, serve to bring out the relation both of dependence on the Homeric epic, and of contrast with it, which characterizes the Virgilian epic." On the artistic plausibility it may be appropriate to comment further on. Now it is characteristic of the way in which Virgil follows Homer that as far as the order in his own epic is concerned, Virgil does not follow the succession of Homeric figures and episodes. The Virgilian Odyssey comes first and the Virgilian Iliad second, each occupying one-half of the Aeneid. Thus too in his Inferno: the Trojan hero's helmsman Palinurus who lost his life by accident, comes first, begging for burial 337–383, corresponding closely enough to Homer's Elpenor who lost his life by accident Od. XI 51–80. The dreary typical moan of Achilles over shadow life 489 βουλοίμην κ' ἐπάρουρος ἐὼν θητευέμεν ἄλλῳ, has its palpable counterpart in the (more impersonal) lines of Virgil VI 436 sq.

> quam vellent aethere in alto
> nunc et pauperiem et duros perferre labores!

The mute aversion of Dido, 469 sqq., corresponds to the way in which Ajax nurses his hatred even in the nether world, 543–564. The most woful thing in Virgil's Inferno is Deiphobus relating his destruction through the treachery of a woman, Helen, to Aeneas who had been ignorant of such an end of his friend. The prototype of this is Homer's Agamemnon

relating his destruction through the treachery of a woman, Clytaemnestra, to Odysseus who had been ignorant of such an end of the former (387–464). The most prominent passage in Virgil's Inferno, where adaptation most nearly approaches translation, are the verses on Tityus 595 sqq. It is notable, too, that the Roman poet in one of his figures blends the functions of two distinct Homeric persons: the functions both of the seer Teiresias and of Odysseus' mother Anticleia are sustained by Anchises in Virgil's Inferno. But at a certain point the Roman poet utterly forsakes his Homeric guide. It is with this departure that our present inquiry is occupied. What does Virgil mean by it? Whence has he drawn his materials, if he does not move along alone? Have we here any proof of personal philosophy or of personal belief on the part of Virgil?

II.

After meeting his sire, the Roman hero, 703 sqq., beholds vast clouds of spirits hovering on the banks of the Lethaean stream. His father informs him that these—

> animae, quibus altera fato
> corpora debentur, Lethaei ad fluminis undam
> securos latices et longa oblivia potant. 713 sqq.

Naturally Aeneas is much astonished at this new coming into the flesh and its grounds and ends :—*quae lucis miseris tam dira cupido?* Anchises, satisfying his curiosity, begins with a philosophic diatribe *ab ovo:* "At the beginning Spirit and Mind pervaded the universe, as life does the human body; and from this union of the universal mind and spirit with the dead primeval mass have sprung the individual living organisms; their life is a part and effluence of that cosmic life and spirit." Abstract as these statements are, they are not quite concise enough to permit us to attach them to a specific doctrine of one Greek thinker. Some points indeed suggest the cosmic doctrine of Plato as presented in the Timaeus, e. g. the idea of the *anima mundi*, Tim. 34 b ψυχὴν δὲ εἰς τὸ μέσον αὐτοῦ θεὶς διὰ παντός τε ἔτεινε. Plato also calls the universe a ζῷον ἀΐδιον Tim. p. 37 d. And there is some resemblance to Stoic teaching, cf. Ritter and Preller, 5 ed., § 412. So much,

briefly, as to the beginning of life. Anchises then goes on, 730 sqq.,

> igneus est ollis vigor et caelestis origo
> seminibus, quantum non corpora noxia tardant
> terrenique hebetant artus moribundaque membra.
> hinc metuunt cupiuntque, dolent gaudentque, neque auras
> dispiciunt clausae tenebris et carcere caeco.

These five lines I trust we can attach more distinctly to Platonic doctrines or reminiscences of such. Plato frequently treats of the incorporation and incarnation of spirit as a process of degradation by which the spiritual and mental faculties are fettered, cut short and weakened. Especially so in one dialogue which was much read and discussed at that time in Rome even in the courses of *rhetorical* instruction (vid. Dionysius of Halicarnassus, Caecilius of Cale Acte, etc.), the Phaedrus. As for the present philosophic views, compare especially Phaedr. 246 d sqq. or 250 c, καθαροὶ ὄντες καὶ ἀσήμαντοι τούτου, ὃ νῦν σῶμα περιφέροντες ὀνομάζομεν, ὀστρέου τρόπον δεδεσμευμένοι. As to the souls in Virgil's line being *clausae tenebris et carcere caeco*, while living with the body on earth, see the famous passage, Rep. VII 514 sqq., where the human souls are compared with captives kept in a cave underground. The soul's power and sight is cramped like the outlook of these captives who can see only the shadows of the things and persons passing by reflected on a wall at the narrow mouth of the cave. Returning now to Virgil we find that the further doctrine is even more distinctly Platonic; Aen. VI 737 sqq.: Even after death men are still subject to a process of purgation and of atonement for the evils done in the flesh, in various ways, until the proper period has been exacted and the spots utterly removed. The same doctrine recurs in Plato again and again so often and indeed so elaborately set forth in mythic and half-mythic form, that there is no need of supposing with Nettleship (Suggestions introductory to a study of the Aeneid, Oxford, 1875, p. 30) that Virgil borrowed this from the Orphic poems. The Platonic dialogues which embody these doctrines were then as always amongst those which were most in the hands of philosophical readers and of literary and rhetorical scholars; they are principally

the Gorgias, Phaedrus, Phaedo, Republic. As to the Apology,
its conclusion is genuinely Socratic both in other regards and
in this that nothing of purgation is advanced there. But at
the conclusion of the Gorgias (the ideal apology of the best
career), p. 526 sqq., we find the theory of retribution, atone-
ment, and purgation, a myth which the author himself however
considers a veritable λόγος: that judgment will be made by
the standards of abstract and ideal justice, not of conventional
and worldly morality. The myth at the end of the Phaedo is
mainly concerned with the topography of the abode of the
blessed and of the nether world; but the theory of the final
reward is also brought out, e. g , 113 a; and with Virgil's
statement of time (745),

> donec longa dies, perfecto temporis orbe,
> concretam exemit labem,

compare Plato's words (ibid.), οὗ αἱ τῶν τετελεσμένων ψυχαὶ τῶν
πολλῶν ἀφικνοῦνται καί τινας εἱμαρμένους χρόνους μείνασαι, αἱ μὲν
μακροτέρους, αἱ δὲ βραχυτέρους, πάλιν ἐκπέμπονται εἰς τὰς τῶν ζῴων
γενέσεις. Very succinctly the doctrine is stated as a part of
transcendental psychology in the Phaedrus 249 a: αἱ δὲ ἄλλαι,
ὅταν τὸν πρῶτον βίον τελευτήσωσι, κρίσεως ἔτυχον. κριθεῖσαι δὲ αἱ μὲν
εἰς τὰ ὑπὸ γῆς δικαιωτήρια ἐλθοῦσαι δίκην ἐκτίνουσιν, αἱ δὲ κτέ. The
following Virgilian lines, 743–4, involve considerable difficul-
ties for the commentators:

> quisque suos patimur manis; exinde per amplum
> mittimur Elysium et pauci laeta arva tenemus.

Virgil says of all those souls who have finished their purga-
tion and atonement that they are sent through the vast
Elysium, but that to a few only is granted the privilege of
dwelling there, including in this instance the speaker Anchises
himself. Are the eventual dwellers in Elysium at any stage
of their life after death subjected to any degree or kind of
atonement? Will they lead their Elysian life forever? The
want of clearness in Virgil's life is unmistakable. Conington,
who is not satisfied with the several suggestions of other
commentators and critics, including Jahn and Munro, winds
up a long note with the remark that " we have here one of the
passages in the Aeneid which Virgil left unfinished." Here

then there is a notable divergence from the line of Platonic doc-
trine if indeed we are sure of understanding Virgil aright. All
souls according to him are compelled to go through some kind
or degree of purgation. But in Plato (Gorg. 526 c) there
present themselves *sometimes* (ἐνίοτε) those who have led a
pure and just life, and who are sent to the isles of the blessed
forthwith from the judgment seat. Again in the passage
quoted from the Phaedrus above, 249 a; αἱ δὲ (opposed to
those who δίκην ἐκτίνουσιν) εἰς τοὐρανοῦ τινὰ τόπον ὑπὸ τῆς δίκης
κουφισθεῖσαι διάγουσιν ἀξίως οὗ ἐν ἀνθρώπου εἴδει ἐβίωσαν βίου. At
the judgment seat, according to the *apologus of Er* in the
Republic X 614 c, there are simply two categories of decisions
and two classes of those dismissed : the δίκαιοι, who are bidden
to go the way upward διὰ τοῦ οὐρανοῦ; and the others, who are
despatched to the lower world. Returning now to Virgil's
Anchises, we come to the important point of metempsychosis,
748,

> has omnis, ubi mille rotam volvere per annos,
> Lethaeum ad fluvium deus evocat agmine magno,
> scilicet immemores super ut convexa revisant
> rursus et incipiant in corpora velle reverti.

The mille anni of Virgil are found in Plato in the same
connection, Rep. X 615, εἶναι δὲ τὴν πορείαν χιλιέτη, both of
those who were punished and of those who went to bliss;
and also in the passage from Phaedrus 249 b τῷ δὲ χιλιοστῷ
ἀμφότεραι ἀφικνούμεναι ἐπὶ κλήρωσίν τε καὶ αἵρεσιν τοῦ δευτέρου βίου.
. As for the god's calling up (evocat), Virgil no doubt has
metempsychosis in his mind when he says, Aeneid IV 242,

> tum virgam capit; hac animas ille evocat Orco
> pallentis.

In the present passage, the god calls them *all* up, and thus in
Plato *all* souls come back from their thousand years' experi-
ence of reward or atonement, *descending* (Rep. X 614 d)
from heaven or *ascending* from the earth below. All then
with great pleasure move into the meadow where they stay
for a while. And this the final portion of the entire process
is the one which the visitor Aeneas is then himself witnessing
in Virgil's poem: the state of expectancy which precedes the

second terrestrial life of the souls who fill the river and there (715)

> securos latices et longa oblivia potant.

As regards the Greek prototype, Conington suggests that it is a translation of Plato's words παρὰ τὸν 'Αμέλητον ποταμόν.

III.

We have reviewed this remarkable episode on transcendental psychology in Aeneid VI. It now behooves us to inquire after the *design* of this parabasis: what is it in the economy of the Epic? When Aeneas met his sire, the latter was just occupied (679) with reviewing the souls who were to become descendants and go into life, and in this review he was also studying their ordained lot of life, their character and deeds. This however was not prophetic vision. All these things were implied in the mere presentation of the several souls standing on the threshold of incarnation. The real purpose of this mystic and philosophic parenthesis is embodied in the words, 717 sqq.:

> jam pridem hanc prolem cupio enumerare meorum,
> quo magis Italia mecum laetere reperta.

The worthies of Roman history pass in review before the founders of the Julian house, and in their passing they exhibit as on a shield or on a coat of arms their character and career. Notice the order of this pageant. First come some names of the Alban period, then Romulus—a rapid and cursory review. From Romulus a great leap is taken to the Julian house; first the glory of Augustus' universal sway is described; then Caesar and the civil wars; the order of time is inverted. The poet's patron precedes. Then come the six remaining kings, each characterized in about two lines, and all within the limit of ten lines. The heroes of the Republic are reviewed in some twenty lines without any regard to the order of time, the Gracchi preceding the Scipios, and these again coming before Fabius Cunctator. The largest amount of space is given to the laudatio funebris of young Marcellus, the hope of Augustus, his son-in-law and heir apparent;

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twenty-five lines form the garland which the grateful poet
hangs on the urn containing the ashes of his patron's and
benefactor's beloved.

I now desire to show that this review of the souls of great
Romans to come, is itself a close imitation of Plato: it is the
shift by which the learned Virgil advances his Epic into a vista
of Roman glory, and this contrivance he has borrowed from
the Greek philosopher. The latter in his Phaedrus 249 b, c,
says: "In the thousandth year they (the souls) come to the
drawing of lots and to the choosing of second life, and they
choose whichever each one will." Of this epitome the elabo-
ration is found in the narrative of Er. The latter himself
saw how the souls chose lots of life (Rep. X 617 c, sqq.) in
accordance with definite examples and types: the life of
tyrants both prosperous and wretched, the lives of famous
men, of rich and poor. Some chose the opposites of their
former life: thus Ulysses chose the life of a private person
free from any great worry or trouble. But in the case of all,
their course of second life was fully determined when once
their choice was made and Er could review the several lives
of the several men while they were on the threshold of a new
incarnation. Anchises, therefore, in the Roman epic, is not
a prophet; but he beholds those lives chosen by certain souls
which Aeneas and the Sibyl see and review from the hill past
which the souls move; a mere plain prediction put into the
mouth of Anchises would have been too severe a strain upon
the opportunities of the pure Epic, and so the learned Roman
has resorted to a shift which he very probably owes to the
scheme of metempsychosis set forth especially in Plato: All
the transcendental psychology in Anchises' exposition was
merely a necessary introduction leading up to metempsychosis.
Virgil as a beneficiary of Augustus was obliged to advance his
narrative from the mythical beginning to the historical end,
and to the Augustan present in which he lived. The glorifi-
cation of Augustus and the glorious past back of the civil wars
were, to the utilitarian Augustus, objects the treatment of
which he expected and desired from his literary beneficiaries.

His great aim was the *consolidation* of that empire for the
possession of which he himself had waged five civil wars.
This is the reason why Maecenas so urgently begged Horace
to essay a great heroic Epic and why Horace, who had taken
his own literary measure correctly, refused (Carm. 2, 12, 1),

> nolis longa ferae bella Numantiae
> nec dirum Hannibalem nec Siculum mare
> poeno purpureum sanguine mollibus
> aptari citharae modis.

IV.

It now remains to inquire into the philosophical reading or
philosophical convictions of Virgil. At the age of seventeen
Virgil came to Rome where he studied both grammar and
rhetoric, and also philosophy under the guidance of the Epicu-
rean Siro (Σείρων). Compare the lines from the Catalecta
(VII),

> nos ad beatos vela mittimus portus,　　　　　　　　　　ı
> magni petentes docta dicta Sironis,
> vitamque ab omni vindicabimus cura.

There is little doubt that the gentle and reverential spirit
of Virgil had little sympathy for the bold and bald statements
of Epicurean physics and ethics. But Epicurism was the
doctrine of the day in the Roman world. "Epicuri ratio
quae plerisque notissima est," says Cicero, De Finibus I, 13;
cf. Ritter, History of Greek and Roman philosophy, IV, p. 84
sqq. Virgil formed some historical and learned acquaint-
ance with Epicurean philosophy, and in the earlier portion of
his career he exhibits vestiges of his philosophic preferences.
Thus in Ecl. 6, 31 sqq. Silenus sang,

> uti magnum per inane coacta
> semina terrarumque animaeque marisque fuissent
> et liquidi simul ignis, etc.

The same poem betrays a kind of blending of philosophic tenets
with the conventional and traditional forms of mythology. .
Another Epicurean doctrine is suggested Ecl. 8, 35 :

> nec curare deum credis mortalia quemquam.

ln Georg. I 415 sqq. we have a passage which controverts a
view held probably by the Stoics: speaking of the joyful
cawing and fluttering of crows at the end of rain-storms, the
poet goes on by explaining,

> haut equidem credo, quia sit divinitus illis
> ingenium aut rerum fato prudentia major,

but from purely physical causes. The Stoics explained instinct
and similar phenomena in organic nature as manifestations of
the anima mundi which pervaded the universe and the prac-
tical effect of which constituted providence itself (cf. Ritter
and Preller, 5th ed., p. 392). The Epicurean aim of eman-
cipating the soul through a full understanding of the natural
history of the universe is clearly presented in Georg. II
490 sqq.,

> felix, qui potuit rerum cognoscere caussas
> atque metus omnis et inexorabile fatum
> subjecit pedibus strepitumque Acherontis avari.

Compare the exposition of this practical point in sede doc-
trinae, Lucretius I 62 sqq. The passage too on the generative
principle in nature (Georg. III 242 sqq.) reminds one of
Lucretius. The Stoic argument of deducing the anima mundi
from the instinct of bees, e. g., is again introduced, IV 220,—

> his quidam signis atque haec exempla secuti
> esse apibus partem divinae mentis et haustus
> aetherios dixere,—

without the adding of any controversy however on the part
of the poet himself. Professor Sellar, pages 119–257, has
discussed at some length the influence exerted by Lucretius'
de Rerum natura on the Georgica of Virgil, from the several
points of view coming into question, and on p. 38 Mr. Sellar
says concisely: "Virgil may have been as assiduous a student
of philosophy as Lucretius, but he does not feel the same need
of consistency of view and firmness of speculative conviction."
At no time probably in the history of Roman letters had so
much attention been bestowed upon the Greek philosophic
writers as prevailed at the end of the Republic and at the
beginning of the Augustan age. The evolution of Greek
philosophy had been completed, and this varied inheritance

of letters was becoming an intellectual or spiritual property
of many; but more were they to whom these things were
mainly matters of erudition. Lucretius, the thorough-going
Epicurean, shows ample acquaintance (book 1) with Thales,
Anaximander, Heraclitus, Anaxagoras. In the Augustan
age, as was noted above, there was a great deal of philosophic
study involved or implied in the courses of rhetorical instruc-
tion, and their very refined and advanced character is reflected
in the rhetorical and critical monographs and controversies of
Dionysius, where, e. g., the chronological order of Aristotle's
books was quoted in an argument intended to defend the
originality of rhetorical composition in Demosthenes. In the
preceding generation, Caesar, Cicero, Brutus, and Atticus had
studied at one or more seats of Greek erudition. Augustus,
Horace, and others had done the same in the present genera-
tion (Sueton. Aug. 89). It was the correct thing for eminent
men to keep a Greek philosophic scholar in their establishment.
Cicero in his day wrote (Tuscul. 2, 8): Platona reliquosque
Socraticos..... legunt omnes; in most of Cicero's philo-
sophic books are evidences of his Greek philosophic library.
Augustus himself wrote Hortationes ad Philosophiam (Sueton.
Aug. 85), and on the Palatinus he built (Ibid. 29) porticus
cum Bibliotheca Latina Graecaque. At one time, too, when
all foreigners were expelled from the capital, the physicians
and teachers were favored by an exception. Horace in many
places reflects the philosophic reading of the day; thus,
Carm. 1, 29, 13:

> cur tu coemptos undique nobilis
> libros Panaeti Socraticam et domum
> mutare loricis Hiberis,
> pollicitus meliora, tendis?

or Epodes 8, 15 sq.,

> quid quod libelli Stoici inter Sericos
> jacere pulvillos amant?

Cf. Sat. 2, 3, 11, 43 sqq.

So much for the philosophic erudition of the day. If we
return to Virgil and direct our attention to the very decided
contrast between the Epicurism in his earlier writings and

the half-mythic Platonism in Aen. VI, are we to assume a
grave and deliberate change of schools ?   Prof. Sellar (p. 84)
is of opinion that the tenets advanced in the Aeneid present
real philosophic convictions of Virgil ; Mr. Nettleship (Intro-
duction, pp. 11, 13, 38) takes them at least as seriously.   I
hesitate to dissent from these eminent scholars; but it seems
safer to me to consider the philosophic element of Aen. VI
merely as a matter of erudition.   Virgil had a practical
desire to advance the legend of Aeneas into the glorious
future of Roman history and Roman greatness and so down
to the universal empire of Caesar Augustus.   The metem-
psychosis of Plato offered to his learned glance a convenient
literary shift to accomplish that practical aim.   One thing
more should be noticed.   Some years before the Aeneid was
in its long course of construction, Cicero wrote his de Repub-
lica, which, in imitation of Plato's Πολιτεία, he wound up by a
vision, the Somnium Scipionis.   There the first Africanus
spoke to the second about eminent Roman dead and about the
life of the soul: about the deceased qui e corporum vinculis
tamquam e carcere evolaverunt (p. 241, ed. of Baiter and
Kayser) ; Macrobius (p. 238) speaks of Cicero as indicans
quo his perveniendum vel potius *revertendum* sit, qui rempub-
licam cum prudentia fortitudine ac moderatione tractaverint.
Cicero's imitation or adaptation of Plato seems to have been
a very accurate one ; it is, then, quite probable that the
apologus of the Platonic Er suggested itself all the more
readily to the learned eye of Virgil.   Erudition was a prin-
cipal element in Virgil's preparation and work.   He did not
rely on bursts of poetic inspiration ; but, rather, with his
compeer Horace, he could truly say,

> me *doctarum* hederae praemia *frontium*
> Dis miscent superis.

VII.—*The Battle of Mons Graupius.*

By WILLIAM F. ALLEN,

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The battle in which, after a resistance of many years, the people of northern Britain were finally defeated and the subjugation of the island was completed, is described by Tacitus in the 35th, 36th, and 37th chapters of his Life of Agricola; a splendid piece of narrative, which is said to have inspired Milton in one of his most famous descriptions. The account of this battle is no doubt the most perplexing passage in the work in which it is contained, its inherent difficulties being increased by the uncertainties and corruption of the text. Not feeling entirely satisfied with the explanation given to this passage in any of the commentaries with which I am acquainted, I have thought that the difficulties arose largely from a failure to comprehend the operations of the battle as a whole: and that the successive points of detail in these operations could be best understood, and especially that the uncertainties of the text could be best cleared up, from the point of view of the military operations. My aim, in the present paper, is to obtain a clear and consecutive notion of the operations of the battle, and incidentally to discuss the successive questions of text and commentary as they arise.

First a word as to the locality of the battle. It was observed by Wex that the manuscript reading, Chap. 29, is not *ad montem Grampium*, but *Graupium;* it was by some error on the part of the early editors that the more familiar name made its way into the text. But Wex did not know that the familiar name finds as little support in Scotch geography, as in Latin manuscripts. The " Grampian Hills" of our modern maps, of Scotch tourists, and of the friend of our youth, Norval, are wholly a modern invention. The name does not occur before the fifteenth century, and appears to have been adopted from an erroneous reading of Tacitus' Agricola. But even supposing that the name were a genuine one, and were

nd in the manuscripts, we could not identify it with the
·rampian Hills." It would be hard to believe that Agricola
·ried his troops more than fifty miles in a straight line from
 base of operations upon the Frith of Forth, into the
·age and barbarous Highlands; even so great a general as
·ricola could hardly have escaped a defeat as signal as that
Varus had been, or as that which was sustained sixteen
·idred years later on the same ground, in the fatal field of
liecrankie. It should be remarked, further, that this hill
·m jam hostis insederat cannot readily be understood to be
·ange, like the Grampians, but a detached hill or ridge.
·reover, it is certain from the narrative in the twenty-ninth
·pter that the Roman commander did not march inland,
· along the coast; this follows necessarily from the words
raemissa classe, quae pluribus locis praedata magnum et
ertum terrorem faceret." Most certainly this fleet did not
end the Tay to the Grampius mountains. The Graupian
·unt of Tacitus must therefore in all probability have been
Fifeshire, not very far from the northern coast of the Frith
Forth.

The account of the battle begins in the thirty-fifth chapter,
·h a description of the arrangement of the Roman troops,
·owed by that of the Caledonians. The order of the Roman
·ops presents no difficulties until we reach an allusion at
·close of the chapter. Agricola, like a thrifty husbandman,
·t his legions, consisting of Roman troops, entirely in
·erve; and, as we shall see, they took no part in the battle
·atever. The whole brunt of the battle was thrown upon
·auxiliaries—eight thousand infantry, composing the main
·, with three thousand cavalry upon the wings. The order
·the Britons, on the other hand, is less certain, and is a
·tter of a good deal of importance. They occupied higher
·und, the front rank being upon the level ground, *aequo,*
·other ranks rising gradually up the slope. The cavalry,
·tead of being stationed upon the wings, like that of the
·nans, occupied the level ground between the two armies.
·re we find the first point of difficulty; the text reads *media*
·*pi covinnarius eques strepitu ac discursu complebat.* This

reading is retained by most of the best editors—Kritz, Halm, Dräger, Church and Brodribb—and is explained to mean that the war-chariots (*covinnarius*) were a kind of cavalry. They certainly may be so regarded, but we know from Caesar that the Britons had cavalry as well as war-chariots, and the two arms are carefully distinguished by him : B. G. iv. 24, *equitatu et essedariis ;* iv. 32, *equitatu atque essedis ;* v. 15, *equites hostium essedariique.* And it would be very strange if in this important battle they used no cavalry except these clumsy war-chariots. We shall find, moreover, when we come to the operations of the battle in the next chapter, that the account is much simpler and clearer if we suppose there were both cavalry and war-chariots in the ranks of the Britons. I prefer, therefore, in this passage to follow the older editions and insert *et* between *covinnarius* and *eques.* A simple emendation here will preclude the necessity of a more extensive emenda- tion further on.

The armies being thus drawn up, Agricola, seeing that the enemy largely outnumbered him, and fearing to be outflanked, had his choice of two alternatives. His officers advised him to bring up the legions; he held, however, to his determina- tion, to keep these in reserve, and preferred to extend his line, at the risk of making it too thin and weak, and thus exposing it to an attack on the flank. The expression used here is, in the manuscripts, *simul in frontem simul et latera*, a harsh expression at best, and hardly grammatical. It is usually corrected by omitting the first *simul*, so as to read *in frontem simul et latera*, a perfectly good expression. I will suggest that a simpler emendation would be to change *et* into *ad*, a quite common change, in which case we should read *simul in frontem simul ad latera.*

There is one more difficulty in this chapter, where Agricola is said, after dismissing his horse, to have taken his stand *pedes ante vexilla.* What were the *vexilla* here referred to ? Both Kritz, and Church and Brodribb explain them as being the same as the *legionum vexilla* in the eighteenth chapter; that is, detached bodies of legionary troops. Such detached bodies, it is well known, were placed under a *praefectus*, and

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were provided with a *vexillum,* or cloth standard, leaving their
signa, or metal standards, with the legion. Church and
Brodribb add that among the *peditum auxilia,* composing the
main line, " would be several bodies of troops, termed *vexilla;*"
forgetting that the *vexilla* were legionary troops, and that
Tacitus has said that this line was composed of auxiliaries
only. I cannot think, therefore, that this explanation is
correct; at the same time I cannot present any other explana-
tion with confidence, because I have not been able to find any
authority as to the use of the *vexillum* by the auxiliaries. I
cannot help thinking, however, that the *vexilla* here mentioned
were simply the standards of the auxiliaries, as *signa* were
the standards of the legion. Even supposing that there were
detached bodies of legionary troops mixed in with the auxil-
iaries, I can see no reason why the general should have stood
directly in front of these; but it is wholly credible that a
commander like Agricola placed himself in front of the
standards of his main line, themselves being placed somewhat
in advance of the line. The matter is of no practical import-
ance in the interpretation of the passage. In either case the
substance is the same, that Agricola took his stand in front
of his troops to lead them into battle.

The battle began (see chapter 36) *eminus,* with a throwing
of missiles on both sides. In this the Britons evidently had
the best of it, being easily able with their great broadswords
and small bucklers to ward off the Roman missiles, while
they themselves showered an abundance upon the Romans.
Agricola, seeing this, hastened to have recourse to the genuine
Roman method of fighting *cominus:* "The race that shortens
its weapons lengthens its boundaries," says the Autocrat of
the Breakfast Table. Agricola sent in his Batavian cohorts
and two cohorts of Tungrians, who soon changed the face of
things. For the enormous swords of the Britons, having no
point, are not suited to fighting *in aperto,* say the manuscripts;
but most editors with good reason change *aperto* to *arto :*
fighting " in the open," *in aperto,* is just what the broadsword
is fit for; but it is not suited to close quarters, *in arto.* The
Caledonian infantry were therefore soon routed, and the

Roman cohorts (it should be observed that the auxiliary
cohorts are here as elsewhere clearly distinguished from the
Roman *legions*) pushed up the hill after them.

So far the account of the battle has presented no serious
difficulties, and the course of the operations is simple and
intelligible. But now follows a passage of great difficulty.
In the rest of the chapter the reading of the manuscripts is
very corrupt, and in many places must be emended in order
to give any meaning at all.

It begins: *Interim equitum turmae fugê: covinnarii peditum
se proelio miscuere; et quamquam recentem terrorem intulerant,
densis tamen hostium agminibus et inaequalibus locis haerebant.*

The first question that arises is: what were these *equitum
turmae ?*

The word *turma* is the most general one for divisions of
cavalry; it is used for the cavalry of the early Roman legion,
for subdivisions of the *alae* or large bodies of auxiliary cavalry,
and for the cavalry of foreign or barbarous nations. The
word *ala*, on the other hand, has a fixed signification, being
applied to the cavalry of the auxiliaries in the Roman army.
It is never used for any other bodies of cavalry, and is regu-
larly, if not invariably, used for these. It has therefore as
distinct and technical a meaning for auxiliary cavalry as
cohortes for auxiliary infantry. Now most editors take these
equitum turmae to be the three thousand auxiliaries who stood
upon the wings of Agricola's army; and this is certainly
possible, inasmuch as these auxiliaries must have been divided
into *turmae*. But it is almost certain that they would have
been spoken of as *alae*, as we shall see is the case in the next
chapter. Moreover the reading is *equitum turmae fugere ;*
and as as Agricola's cavalry certainly did not run away, the
editors who take the *equitum turmae* to have belonged to the
Roman army (among them Halm, Kritz, and Dräger) insert
ut before *fugere*, and change the punctuation, so that the
passage reads: *interim equitum turmae, ut fugere covinnarii,
peditum se proelio miscuere:* "the Roman cavalry, after the
flight of the war-chariots, mingled in the infantry battle."
It is an objection to this, although perhaps in itself not a

very strong argument, that it assumes, without saying, that
the war-chariots as well as the infantry had been repulsed.
This is certainly not impossible; I prefer, however, the reading
of the text, as on the whole, without any emendation, presenting
a more natural order of operations. As I have said above, it
seems probable that the Britons had cavalry as well as war-
chariots, *covinnarii et eques;* the insertion of *et* in this passage
makes it unnecessary to change the passage now under consid-
eration, and the *equitum turmae* as well as the *covinnarii* may
be referred to the Britons. I interpret the passage to mean
that the British cavalry were repulsed, while the war-chariots
mixed themselves in the infantry battle. By this they at first
partly restored the day, *recentem terrorem intulerant,* but were
soon brought to a stand, *haerebant,* on the uneven ground
closely crowded with the ranks of their own men, called by
Tacitus, from his point of view, *hostium.*

This view appears to take no note of the cavalry of the
Romans, who can hardly be supposed to have been inactive;
and probably a portion of the cavalry had already joined the
infantry in the pursuit of the retreating Britons. But the
greater part of the cavalry, as we learn from the next chapter,
were still held in reserve. The *ala* of cavalry consisted of
either 480 or 960 men; the three thousand cavalry, therefore,
mentioned in the preceding chapter, composed at most six
alae. Now in Chap. 37 we find mention of four *alae,* which
had been held in reserve for emergencies; not more than a
third of the cavalry could therefore have been engaged up to
this time. This is a strong argument against considering the
equitum turmae to have been Roman; there would have been
some restricting or defining expression, if it had referred to
only one third of the body. A still more decisive objection is
that the course of the battle as depicted by the reading adopted
by Halm, Kritz, and Dräger makes the Romans to have been
worsted at this point, while the sequence shows that this was
not the case. Church and Brodribb retain the reading of the
manuscripts, giving it the interpretation that I have done.
But at the same time they retain the manuscript reading
covinnarius eques, and thus make no provision for Caledonian

cavalry. It seems to me indispensable either to insert an *et* in the one place or an *ut* in the other.

The condition of things, therefore, at this point, seems to be as follows. A hard infantry battle is going on upon the slope of the hill, the war-chariots attempting ineffectually to support the infantry of their countrymen; the cavalry of the Britons has disappeared, while a part of the Roman cavalry must be understood to have accompanied the infantry directly into the fight. Now follows a very corrupt and perplexing passage: *miêque equestres ea enim pugnae facies erat, cum egra diu aut stante simul equorum corporibus impellerentur.* These words, taken by themselves, are wholly unintelligible. The difficulties lie chiefly in *equestres* and *diu*, which have been emended respectively into *aequa nostris* and *clivo*. I can see no reason for the first change. The rest of this chapter is occupied with a description of the confusion caused by empty chariots and riderless horses, and the next chapter begins with an attempt of the Britons to take the victorious Romans in the rear. Evidently the battle was not *minime aequa nostris* at this juncture, and although I cannot suggest any entirely satisfactory expression of this hopelessly corrupt passage, yet it seems to me that it was the most natural thing in the world for Tacitus to say, as Livy does of the battle of Cannae,* that the look of the battle was not that of a cavalry engagement. The war-chariots on one side, and the three thousand cavalry on the other, were in full action; but they were so intermixed and confused with the infantry, that the writer only goes on to describe this confusion—*equorum corporibus impellerentur—vagi currus—exterriti sine rectoribus equi—transversos aut obvios incursabant.* The other emendation, *clivo* for *diu*, seems every way good; only I should read with Halm and Dräger, *adstantes* (for *aut stante*), rather than *instantes* with Kritz. *Adstantes* not merely resembles more nearly the manuscript reading, but is the proper word to use for the Britons (see *adstiterant*, a few lines above), while *instantes* would naturally apply to the Romans making their way up the hill.

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* Book xxii. ch. 47, *minime equestris more pugnae.*

The thirty-seventh chapter begins with an attempt of certain British forces which had up to this time taken no part in the battle, to take the Romans in the rear, *circumire terga vincentium coeperunt;* and this expression, showing that the Romans still had the better of their antagonists, completely disproves Kritz' reading *minime aequa,* with his interpretation of the previous words, referring the check in the words *haerebant* to the Roman cavalry. Agricola met this aggressive movement by bringing up four *alae* of cavalry which had until now been held in reserve; auxiliary cavalry of course, inasmuch as the term *ala* is confined to divisions of auxiliary cavalry. The mention of this reserve of four *alae* implies that the rest of this cavalry was already engaged, as I have assumed. It also serves to support the opinion already expressed that the *equitum turmae* were British; the word *alae* would probably have been used had it been the Roman cavalry. Not merely were the advancing Britons repulsed, but the fresh cavalry were themselves carried round to the enemies' rear, *aversam hostium aciem invasere.*

The description of the slaughter which followed is in the picturesque style characteristic of Tacitus, but calls for no special remark. The enemy appears to have been steadily pushed up the hill until they reached a piece of woods which has not been mentioned before, where they again made a stand, and gained some advantages by their familiarity with the ground. And again Agricola called up fresh troops, this time infantry, *validas et expeditas cohortes,* who searched the woods in conjunction with mounted and dismounted cavalry. These fresh troops must also have been auxiliaries. It is true the word *cohortes* is not decisive, although this is the term regularly used for the auxiliary infantry, in contrast with the Roman legions; for the legions too were divided into cohorts, just as the *alae* were divided into *turmae.* But if it had been detachments from the legions, the word *manipulos* would have been more likely to be used, and at any rate the statement that they were light-armed, *expeditas,* proves that they were auxiliaries; for the Roman legion contained at this period no light-armed soldiers. The same thing is proved by the fact that the officer

killed in this engagement, Aulus Atticus, is called *praefectus cohortis;* the term *praefectus* is never used for a legionary officer. This movement finally brought the resistance to an end; the British lines broke and fled, and the conquest of Britain was complete.

It appears, if this sketch is correct, that the battle was fought by Agricola wholly with his front line, of auxiliaries; the legionary soldiers not being brought into the engagement at all. It appears further that there was never any serious check—except, indeed, at the very beginning of the contest— and never any actual repulse. The battle nevertheless was in three distinct stages, or rather presented three distinct crises. First, when the fighting *eminus* proved ineffectual, a charge of Batavians and Tungrians was ordered, followed no doubt by a portion of the cavalry; the fighting was then upon the hill-side, confused and disorderly, especially by reason of the presence of the war-chariots. The second crisis was the attempt of the Caledonians to take the Romans in the rear; this was frustrated by the prompt bringing up of divisions of cavalry, which themselves came round upon the rear of the enemy, and effected a general slaughter. The third was the fight in the woods, determined likewise by the commander bringing up fresh troops, with which the victory was secured.

VIII.— *On Inconsistency in Views of Language.*

By W. D. WHITNEY,

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If the study of language is to reach and maintain the rank of a science, those who arrogate to themselves the position and authority of teachers of it ought above all things to see that the views they put forth are fairly consistent throughout. Attention to this would remove at least a good part of the lamentable discordance of view which now prevails among them respecting even matters of fundamental consequence. There is a body of well-ascertained and undeniable facts within the reach of every linguistic student sufficient, if logically combined, to establish an abiding outline of scientific doctrine —one which, however much it may be filled in and made more definite by the labors of coming generations of investigators, will be neither swept away nor essentially altered.

As a noteworthy example of the errors arising from carelessness of logical consistency, we may take the opinions brought forward by certain contemporary authorities respecting the relations to one another of dialects and languages.* There is a connected series of objectionable doctrines on this subject, which, so far as has been observed, began with M. Renan, being laid down by him in his work on the " Origin of Language " (second edition, 1858; it has been since more than once reissued). In the eighth chapter of that ingenious and eloquent work, the author calls attention to the " impossibility of a homogeneous language spoken over a considerable territory in a rude state of society; " and adds that " civilization alone can spread languages through great masses of population." No careful scholar will think of differing with M. Renan on these points; nor, indeed, will he dispute the

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* In the paper as read before the Association, and since printed, in substantially the same form, in the American Journal of Philology (vol. i., pp. 327-343), this specimen of the common offenses against consistency was much more briefly treated; it has seemed best to make the fuller discussion of it here a substitute for the already published original article.

theoretical soundness of the latter's inference: namely, that
"at the beginning there were as many dialects as families—I
might almost say, as individuals." Only, he will ask, how
many families, or individuals, are we to regard as having
been in existence " at the beginning "? M. Renan's concep-
tion of a beginning seems to be a somewhat peculiar one ; for
he immediately goes on to say that "each group of men
formed its language on a foundation established, indeed, by an
anterior tradition, but following its own instincts," and so on :
a " beginning," accordingly, with an " anterior tradition " be-
hind it ! Such a " beginning " can, it should seem, only be
that of our historical knowledge of the communities in ques-
tion; and this, as abundantly appears from other parts of his
work, is the author's real meaning. He everywhere evinces
the utmost unwillingness to allow that the pre-historic periods
of language-growth are to be investigated by analogical infer-
ence from its historic periods; as we actually find the facts to
be when they come within our field of view, such they must
have been from the outset. Hence it is that he holds every
language to have been produced " at a single stroke," its
whole characteristic structure complete at the start, " like
Minerva sprung from the brain of Jove "—a comparison which
provokes the reply that it precisely fixes the *status* of the
author's doctrine : as science, the one thing is just as acceptable
as the other. All our knowledge of the history of language
shows that changes, and quite especially changes of structure,
are of very gradual, or even extremely slow, progress and
accomplishment; and the bringing into being of a tongue like
the Indo-European by a single effort of its speakers could only
be paralleled with the production of a full-grown and completely
armed goddess from that womb of masculine products the
brain, after a slight headache, with the cæsarean aid of a
blacksmith's hammer. The facts appealed to by M. Renan in
support of his theory of original indefinite dialectic variety
are, among others, the extreme diversity of the Polynesian
languages : which, accordingly, represents to him the begin-
ning of things in that wide-spread linguistic family. What
to others appears the unquestionable certainty with reference

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to these languages does not even rise before his mind as a
possibility: namely, that their extension has taken place in
connection with the growth and migration of a single limited
community, of uniform speech, which necessarily involved the
divarication of the forms of that speech : a process so abund-
antly illustrated for us in the recorded history of language,
and so well understood in all its parts, that to refuse to apply
it to explain the facts of language-distribution in general
seems equivalent to shutting one's eyes.   To illustrate by a
nearly parallel case : we find occupying most of southern and
a part of central Europe a large body of communities, using
languages which show in abundance correspondences of the
kind called by us dialectic: thus, they all alike say something
like *tu* for 'thou,' and *pater* for 'father,' and *fuit* for 'was,'
and so on.   If we simply found these dialects thus distributed,
and had no information as to their history save what their
existence and distribution gives us, M. Renan's method
applied would require us to speak of them thus : " No uniform
language could possibly have been spoken in prehistoric times
of darkness over so wide a region; hence these mutually
resembling tongues cannot be the descendants of one original;
they are examples of the infinite dialectic variety of primitive
speech, out of which sometimes grows a uniform language."
M. Renan does not draw this particular conclusion, because it
is refuted by historical record ; he only inculcates the neces-
sity of drawing it in the other analogous instances where
history happens to be silent.

And the same thing is done, in the plainest and most out-
spoken way, by another noted writer and reputed authority on
language, Professor Müller of Oxford in England.   The special
occasion of this scholar's denial of an original unity as under-
lying and antedating dialectic variety is his treatment of the
Germanic dialects (in the fifth lecture of his first published
course).   We will glance through his reasonings on the
subject, which are marked with even more than his usual
vagueness and ambiguity.   After pointing out that we can
follow Low German and High German back to about the 7th
century of our era, he says " we must not suppose that before

that time there was *one* common Teutonic language," etc.
This might seem to mean only that there was no unity of
speech subsisting all the way down to the period named, a
doctrine from which no one would think of dissenting ; but
he immediately goes on : " There never was a common,
uniform Teutonic language ; nor is there any evidence to show
that there existed at any time a uniform High-German or
Low-German language, from which all High-German and
Low-German dialects are respectively derived." One is a
little puzzled by the difference here : why should the existence
of a general Germanic mother-tongue be categorically denied,
while respecting that of a general High-German or Low-Ger-
man it is only denied that there exists evidence to prove it ?
But what Müller understands by the absence of evidence is
set in a peculiar light by the next sentence, where he points
out that we cannot derive Anglo-Saxon and the rest from
" the continental Saxon of the 9th century : " a quite needless
statement, having no bearing whatever on the topic under
discussion, since no one ever thought of making such a deriv-
ation. What in the view of others is the real and sufficient
evidence is mentioned by him a sentence further on, where he
allows " that, with every century that we go back, the con-
vergence of these dialects becomes more and more decided."
Steadily converging lines, it is generally held, will be found
to meet if one follows them up far enough; or, if they run off
the field and we lose their trace, we still hold that they *would*
be found to meet if we *could* follow them up; and there is no
difficulty about applying the analogy to the history of lan-
guage, because we have abundant historical examples of a
unitary language divaricating into dialects, and understand
very well the operation of the causes that bring about such a
result. But Müller, overlooking all this, merely repeats in
the same sentence his assertion that " there is no evidence to
justify us in admitting the historical reality of one primitive
and uniform Low-German language : " he continues, " this is
a mere creation of grammarians who cannot understand a
multiplicity of dialects without a common type ;"—to which
we may further add, " and rejected only by those who are not

grammarians enough to understand that a multiplicity of dialects absolutely demands for its explanation a common type." As a closing argument, he declares a little later that the various tribes which descended upon the Roman empire had already their dialects, High and Low and so on—which is much as if an Englishman were to assert that Müller himself had never been an infant, because when he first descended on the British empire, thirty years and more ago, he was just as full-grown a man as he is at present. Indeed, it is worse; for we should unquestionably find in their dialects, if we had record of them, a more decided degree of that "convergence" which points unmistakably to an original unity.

Professor Müller, in all this, evidently occupies the same point of view with M. Renan; when he had gotten thus far in his exposition, his imaginative eye was filled with the spectacle of a broad and half-savage Germany and Scandinavia, filled with a host of separate and mutually hostile tribes; and he is perfectly certain, as well he may be, that these tribes cannot possibly have spoken one uniform language. To make this point of view more manifest, he says: "As there were families, clans, confederacies, and tribes, before there was a nation, so there were dialects before there was a language:" thus it read in the first editions, the author having forgotten that every dialect is a language, and every language (of a family, like the Indo-European, at any rate) only a dialect. Now the cadence has been amended to "before there was one classical language;" but the change has not been to the advantage of the author's argument; in place of an error it has substituted a truism, to which no one, indeed, can object, but from which also no one can derive any conclusion. The rise of a single dialect to the dignity of "classical language" —as in the case of the Parisian French, the Tuscan Italian, the Castilian Spanish, and the modern High-German—of course implies the prior existence of a variety of dialects; but this does not touch the question respecting the origin of the various dialects: whether, namely, as the Romanic dialects came into being by the extension and divarication of a unitary Roman speech, the Germanic dialects also sprang by a like

process from a unitary Germanic speech. In this particular connection, it did not occur to Professor Müller to look further back, and ask himself how there should have come to be clans and tribes and so on in the wide region he was contemplating. As things go on in this world of ours, they must, it should seem, either have been created, one and all, on the spot where we find them, or have come thither by immigration. Does Müller, or any other living man, really believe the former? It is not to be credited except on his own direct and unqualified declaration—if even then. But if immigration was the populating cause, we have to look to see in what way it acted ; and if we find the clans and tribes to resemble one another in their physical and mental characteristics and in their social institutions, including language, and if, above all, we have the means of following up their languages for some distance, and find them to " decidedly converge," how can we possibly avoid inferring that the region was filled by the multiplication and spread of an originally limited community, of homogeneous customs and speech—a spread which necessarily brings with it a dialectic divarication like that which we have before us ? Whether it was an extension into vacant territory, or involved a partial displacement and a partial absorption and assimilation of an earlier population, is obviously unessential, though a matter of much interest, to be determined, if possible, on any evidence found attainable. When, therefore, Mr. Müller goes on to assert that " the grammarian who postulates a historical reality for the one primitive type of Teutonic speech, is no better than the historian who believes in a Francus, the grandson of Hector, and the supposed ancestor of all the Franks, or in a Brutus, the mythical father of all the Britons," he makes a comparison of which he himself, on a little reflection, cannot but see and acknowledge the falsity. We do not question that the Franks and the Britons had ancestors, and, far enough back, a narrowly limited number of them ; and this is the truth whose concession is really analogous with the assumption of an originally unitary Germanic tongue ; nor can either the one or the other possibly be avoided. But to talk of Francus and Brutus is equivalent to what it would be

to maintain that the original Germanic community came from a certain point in a stated year and settled on such a river, and that they were so many families and bore such and such names. Any grammarians whom our author can find teaching this may be readily abandoned to his ridicule; until they are discovered, the laugh is rather against himself.

What is strangest, however, about these views of Professor Müller's is that they form part of a chapter which has for its object to establish, on the authority of an obvious " convergence of dialects," the unity of the great family of languages of which the Germanic constitute only a branch, and the fact that at some time long ago "there must have existed a language more primitive than Greek, Latin, and Sanskrit, and forming the common background of these three, as well as of the Teutonic, Celtic, and Slavonic branches of speech." It is, in fact, in no small measure on the authority of Müller that the English-speaking public so widely believe the languages of a great part of Europe and Asia to be the common descendants of an original Aryan (so he prefers to call it) tongue, developed to a certain degree of fulness of forms in a single community, and handed down from them by living tradition in an ever increasing number of diverging lines. His books, like those of every other writer on language, are as it were permeated by the doctrine of Aryan unity. What should have led him at this particular point to go off upon another tack, denying the validity of methods on which he elsewhere relies, probably not he himself, certainly not any other person, could tell. This aspect of the matter, perhaps, happened to strike his mind, and he set it down, in his genial way, heedless of its inconsistency with what he was accustomed to teach in general. But the methods of linguistic investigation are not thus to be played fast and loose with. If the converging lines of Germanic and Italic and Greek and Indian speech conduct to an original unity, then those of High and Low German and Scandinavian and Gothic must do the same. We are accustomed to call "dialectic" such correspondences as, according to our experience and knowledge of language, are only to be explained by common descent from one original.

We can conceive of some one's denying this whole inference of kinship and ultimate unity, just as of some one's denying the Copernican system or the truths of geology, if his knowledge, or his sense of the connection of cause and effect, is of a kind and degree to let him do so ; we can even conceive of a person as recognizing dialectic divergence where it has taken place in historic time, as in the case of the Romanic tongues, but refusing to believe in it where it is pre-historic, as in Germanic and "Aryan" and Polynesian ; what is hardest to understand is the state of mind of a man who accepts one pre-historic case and denies another of the same kind. To hold, in short, that such diversity in unity as characterizes the Germanic dialects is to be accounted for otherwise than by the variation of a common original is to throw away that law of uniformity which alone makes the study of language a possible science. Dialects are related languages ; and relationship is only by common descent ; to claim that there were dialects before there was a language is like claiming that there were fathers and brothers and nephews before there were men.

The passage here discussed is not, however, the only one in which Professor Müller has brought forward views respecting the relationship of languages which are wholly at variance with, or subversive of, linguistic science. A kindred and even more remarkable doctrine is to be found in the third of his Lectures on the Science of Religion (delivered in 1870, published in book form in 1873), being there for the first time, so far as noticed, broached by him. Long before, at the very outset of his career as writer on the general subject of language, he had been the responsible author of a classification of the languages of the world which divided them, with insignificant exceptions, into three families, Aryan, Semitic, and Turanian—the last being a sort of *omnium gatherum*, or refuse-heap, into which were thrown together all those tongues of which philologists, or at least the authors of this classification, did not know enough to put them into separate well-defined groups. The division and nomenclature were strongly opposed from the beginning, and, it is believed, never

accepted by other scholars of independent authority : although
gaining, of course, a degree of popular currency which has
not even yet been wholly lost. It is not without evident
reference to the general condemnation passed by competent
critics upon his trio of speech-families that Müller, in the
lecture referred to, adverts to the subject thus : "People
wonder why the students of language [really, himself alone]
have not succeeded in establishing more than three families
of speech—or rather two, for the Turanian can hardly be
called a family," until the Chinese shall be fitted with a place
in it. "The reason why scholars have discovered no more
than these two or three great families of speech is very
simple. There were no more, and we cannot make more.
Families of languages are very peculiar formations ; they are,
and they must be, the exception, not the rule, in the growth
of language." Here, now, is something entirely new and
original, for which a parallel may be sought in vain through-
out the whole body of previously existing discussions of lan-
guage ; and it plainly calls for a careful examination on our
part.

Müller allows the so-called Aryan or Indo-European lan-
guages to constitute a family : and on what ground ? Simply
because in this body of speech, existing or recorded, there
have been found traces of common material and common
structure sufficient to give us good ground for believing that
the languages are related to one another : that is, that they
are descended from one ancestor ; or, dropping the figure,
that they are the altered representatives of a common original.
In the term "family," as used in the science of language,
there is involved no other meaning than that of relationship
as thus defined ; neither the number of members, nor the
antiquity of their traceable lineage, nor the elegance of their
culture, nor their wealth in literature, nor their prominence
in the history of mankind, has anything to do with it. From
the scientific point of view it is not allowed to speak of the
two or three families of language as one might speak of the
two or three "county-families" of an English shire, or as a
princeling might refer to the "European families," meaning

the reigning ones, with which the rest were unworthy to be classed. Wherever there is found in the world a group of dialects traceably related among themselves, and not traceably related with any others, that group is called a family. If all the branches of the great Indo-European family were blotted out of existence and out of record except the Germanic, the Germanic branch would be a family by itself; if all the Germanic dialects except the Low German, the latter would be a family; if of the Low German all but English, the various dialects of English would still be a family. We do not know, and cannot ever know, whether some of the groups of existing languages as few in number and as insignificant in their range of dialectic differences as are the dialects of Britain may not be the solitary relics of families once exhibiting an extension and variety comparable with the Indo-European. The Celtic branch of our own family is an instructive example of what may happen in the way of wholesale effacement of a once wide-spread body of dialects. So as regards what Müller still calls the Turanian languages, though uncertain whether they should be regarded as a family : the Finnish and Turkish and their congeners are beyond all doubt related languages, and it only remains to determine more fully the boundaries of the family to which they belong; the question as to whether the Chinese can be shown to be a link connecting them with the tongues of Further India, the Himalaya, the Dekhan, and the islands of the Pacific is one only of less and more, of one comprehensive family or of a number of minor ones. This is, as already said, the current and alone-accepted use of the word "family;" and, according to it, instead of "scholars" having discovered only two or three families of speech, they have (as may be seen by referring to any recent work on the varieties of human language) discovered a great and indefinite number : indefinite, because new information is all the time bringing about changes of the hitherto received classification. Families, in short, instead of being exceptional, are nearly or quite universal ; for there is hardly a form of human speech, if there be a single one, so isolated and limited that it has not by its side another or others dialectically different from it, and so forming with it a related group, a family.

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But even though all authorities on language (including Müller himself, up to the time of publication of the views we are considering) may have been accustomed to employ a certain name in a certain sense, any one, of course, has a right to alter the prevailing terminology, provided he can show the change to be an improvement worth the trouble of making. We have, then, to see what Müller brings forward in justification of his new use of the word "family." He does not, indeed, it is to be observed, introduce the change as a change, and defend and establish it ; he slips it in as if it were the most natural thing in the world, and not open to objection from any quarter. While other scholars were innocently supposing families of speech to be met with all over the world, and of quite simple explanation by the well-understood and historically illustrated laws of linguistic growth, he breaks in with the startling *dictum* quoted above, that they are and of necessity must be the rare exception in language-history. He goes on : " There was always the possibility, but there never was, as far as I can judge, any necessity for human speech leaving its primitive stage of wild growth and wild decay. If it had not been for what I consider a purely spontaneous act on the part of the ancestors of the Semitic, Aryan, and Turanian races, all languages might forever have remained ephemeral, answering the purposes of every generation that comes and goes, struggling on, now gaining, now losing, sometimes acquiring a certain permanence, but after a season breaking up again," etc. And, on a previous page : " we find that in the vast desert of drifting human speech three, and only three, oases have been formed in which, before the beginning of all history, language became permanent and traditional, assumed in fact a new character, a character totally different from the character of the floating and constantly varying speech of human beings. . . . In these three centres . . . language ceased to be natural ; its growth was arrested, and it became permanent, solid, petrified, or, if you like, historical speech."

This is the whole story ; nothing found elsewhere in Müller's writings, so far as observed, casts any further light upon the

matter; except that the word "concentration" is repeatedly
applied in the Lecture, in a compendious way, to designate
the process by which a family is thus formed.

It appears, accordingly, to be Müller's opinion that there is
a peculiar character belonging to the languages of these three
families—or rather, we should say, to the family-languages
among mankind—a character which he can only account for
by postulating an original concentration, which need not have
taken place, but which is to be credited to the spontaneous
action of certain highly meritorious people in a pre-historic
age. As to the nature of the process of concentration, we
are left completely in the dark; not an illustrative analogy
is (or can be) brought up to explain it; it seems to belong in
one category with the Flood and the dispersion of Babel,
things that could happen, by miraculous agency, long ago,
but are not to be expected to occur now-a-days. Nor is our
information much better as to the wonderful nature of the
products of concentration; for, when Müller's rhetoric is
reduced to simple statement, it seems to imply nothing that
is not equally true of other tongues also. We are told that
the languages in question thus became "permanent and
traditional." As regards the latter characteristic, it would
be highly interesting to know what the author thinks he
means by it. Are not all languages traditional? Is not every
one, all over the world, learned by each generation from its
predecessor, by each individual from his elders? Or, if any
one denies (and there are such) that languages are learned
by their speakers, does he not deny it just as much with
reference to one of Müller's family-languages as to any other?
Let Müller demonstrate, if he can, a difference in regard to
traditionality between English and Arabic and Hungarian on
the one hand, and Basque and Maya and Japanese on the
other. And how is it as to the permanency—a permanency
which is held to be so marked that it needs to be further
qualified as "solidification, petrifaction"? Take, for example,
a range of Indo-European dialects like English and Welsh
and Russian and Wallachian and Kurdish and Marâthi—they
certainly have the air of being uncommonly alterable petri-

facts. A curious sort of solidification must that have been which has allowed the highly synthetic "Aryan" speech to become the almost monosyllabic English. From the beginning down, it has only been necessary for the speakers of any Indo-European tongue to break up into separate communities, and their precious solidified family-language has broken up incontinently into dialects, just as if it had no family-character to sustain. Not even in a tight little island like Britain, and with the enormous help of a civilization and literature almost as old as the introduction of its present inhabitants, has it been possible to avoid the growth of dialects. Semitic speech has, to be sure, been of much slower change ; but differences in the rate of alteration have been characteristic of different languages all the world over, outside the "family" lines as well as within them. And what, too, becomes of the asserted connection between Hamitic and Semitic ? if that be admitted, it involves the utmost conceivable variation. And how, once more, about all those Asiatic and insular languages which are waiting for some one to shape the Chinese into a general tie of connection, in order to be dragged within the pale of the Turanian family? Their infinite actual variety, it appears, will be, according as that attempt on the Chinese shall prove unsuccessful or successful, an illustration on the one hand of the drifting and floating character of general human speech, or, on the other, of the solid petrifaction of family language. Where in all the wide world is there a language that has not been " answering the purposes of every generation that comes and goes," " struggling on," " constantly varying," and all the rest of it, and which might not therefore in an outburst of poetic exaltation be styled " ephemeral," or " drifting"—perhaps even " floating," if one fancies himself for the moment an adherent of the diluvial philosophy? That, however, any language or body of languages has ever " ceased to be natural" is more than we are prepared to concede, even to a poet in his highest mood of inspiration. And in this claim and in the assertion of a certain " wildness" (which can hardly be argued against, because of the difficulty of understanding what it means) belonging to the growth and decay of languages out-

side the family-circle, lies the whole remaining substance of
Müller's theory.   Its scientific statement, then, is this: other
languages grow and decay wildly; but the family-languages
have ceased to be natural; and this can only be the result of
a pre-historic spontaneous concentration.

The relation between this new doctrine and the one for-
merly criticised is clear.   Professor Müller seems unable to
conceive of a world not already thickly peopled in all its parts,
and by tribes which, though speaking wildly and floatingly,
are yet in general prepared to maintain each its own speech
against all comers.   If in this chaos of conflicting languages
there is ever to be any unity, somebody, he thinks, must be
public-spirited enough to concentrate.   If this conjecture is
wrong, the responsibility lies with the author of the theory to
let us know what it really does mean.   Perhaps, as the dispo-
sition and ability to concentrate might be supposed also, not
less than the language itself, to have become solidified and
traditional in the families, he will further explain the extension
of the Latin and that of the Arabic—the two most notable
instances of their kind in the recorded history of language—
as examples of spontaneous concentration.

But to speak more seriously: any one may be safely chal-
lenged to find in all the annals of modern scientific discussion
of language a theory more destitute of a basis in fact, more
opposed to all that is sound and well-established in linguistic
science, than the one here criticised.   If it had an inconspic-
uous name behind it, it would need simply to be passed over
with a smile, or with a sentence curtly pointing out that its
producer could only be listened to with the utmost caution,
even if he had the right to demand public attention at all.
But whatever Müller puts forth is sure to find its admiring
acceptors; and these doctrines, of the trinity of language-
families, their production by the concentration of dialects,
and the consequent antecedency of dialects to language, may
be found cropping-out in the writings of a whole circle of
younger disciples and imitators—which is the only, but suffi-
cient, reason for the examination and discussion here given
them.   We may close with a brief notice of them as they

appear in the most ambitious recent work on language, published in the course of the present year (1880): namely, the "Introduction to the Science of Language" (in two volumes, near nine hundred pages together) of Rev. A. H. Sayce, Müller's substitute as professor in the University of Oxford, and widely known as one of the most prominent and meritorious Assyriologists now living.

It is almost needless to say that Mr. Sayce, like Mr. Müller, uses throughout the greater part of his work the term "family" in the same sense in which philologists generally use it, and in numerous places either expressly states or distinctly implies that dialects are related forms of speech, descended from a common ancestor: these things are so thoroughly wrought into the foundation and superstructure of the science of language that no one who writes on the subject can do without them. For example: he speaks (ii. 31) of "the genealogical classification of languages, that which divides them into families and sub-families, each mounting up, as it were, to a single parent-speech." He approves and accepts (ii. 32) Friedrich Müller's estimate of "about 100 different families;" and then proceeds (ii. 33–64) to give his own (own by modification and addition) list of seventy-six "linguistic families." He speaks in various places of the Bantu family (even Müller, to be sure, allows that there may have been a Bantu "concentration"), of the Malay family and its parent-speech (ii. 207), of the Dravidian family, and so on. He regards (ii. 138) the corresponding Sanskrit *asmi* and Lithuanian *esmi* as "relics of a time when the ancestors of the Hindus and the Lithuanians lived together, and spoke a common tongue"—in "the primæval Aryan community," as he calls it elsewhere (ii. 123): and a plenty more of the same sort. But, in doing all this, he is leaving wholly out of sight and forgetting what he has taught earlier, when laying down the laws of "change in language." There he says (i. 215): "As we shall see hereafter, families of languages are exceptional in the history of speech." What, under his direction, we actually do "see hereafter," has been just pointed out; it is something as different as possible from

this. He goes on : " Professor Müller very truly says :" and proceeds to quote from him the passages which we have given in full and commented on above. Then he adds, out of his own head :. "And these oases, these families of speech, it is important to remember, are themselves made up of dialects, only dialects with a common grammar and a common stock of roots." What sort of things dialects without those common characteristics would be, we are somewhat puzzled to imagine. But further : " We may, if we like, construct a hypothetical ' parent-speech,' from which we may derive the several dialects and languages which are the only facts we have to work upon; but we must not forget that such a parent-speech is purely hypothetical, the product of reflective analysis and logical deduction." If these are matters important to remember, and not to be forgotten, Mr. Sayce might himself be fairly called upon to bear them in mind, at least to the end of his second volume; no one speaks oftener of a " parent-speech," in spite of his occasional hearty denunciation of such a thing as " purely hypothetical." Hypothetical of course it is, in a certain way; but only as everything in the world of which we have not had personal knowledge is hypothetical. The doctrine that language, or man, or the earth had a beginning, is also hypothetical, arrived at by a process of " reflective analysis and logical deduction." Does Mr. Sayce mean to deny that such a process is capable of leading us to the discovery of results that may be received with all confidence ? If, exploring along a coast hitherto unknown to us, we come upon a stream of fresh water flowing out into the sea, our conclusion that it is what we have been accustomed to call a river, and comes down from the blue heights which we see in the distance, is only a hypothesis; perhaps it runs out of a hole in the ground a mile further inland, or is produced by the coalescence of oxygen and hydrogen atoms under peculiar magnetic conditions. If on a newly discovered island we find a tribe of people speaking a dialect akin with that of their nearest neighbors, it is by hypothesis that we hold them to have emigrated thither; perhaps they grew on trees, or rained down. And we might

illustrate further without end. The cases are strictly parallel:
we think we know by observation something of the way in
which men come into being, and something of the way in
which rivers are gathered and flow ; and therefore, when we
fall in with a new community of men or a new river, we
infer, with a degree of confidence corresponding to our pre-
vious knowledge, and to the solidity of our conviction of the
uniformity of cause and effect in nature, what we are con-
vinced must be true of their origin. It is generally held
among scholars that we have also gained from observation
and comparison some knowledge as to the way that things go
on in the history of language, so that, applying the principle
of uniformity, we can tell, within reasonable limits, what
effects are to be expected from the operation of certain
causes, and to the operation of what causes certain effects
are to be traced : if Mr. Sayce is not one of those who believe
this, it is difficult to see why he should feel called upon to
write a book about the " science of language." There are
times, as we have seen above, when he does believe it; his
statement, already quoted, that Skt. *asmi* and Lith. *esmi*
prove the ancestors of the Hindus and Lithuanians to have
once spoken together a common language, is enough, if held
fast and carried out to its logical consequences, to sweep out
of his pages all this meaningless talk with which, under
pressure of his master's authority, he is confusing himself
and trying to confuse his readers.

But Mr. Sayce is also in the same trouble as his two prede-
cessors with reference to a beginning of things in language.
Thus, when pointing out (ii. 99) the difficulty that has been
met with in establishing the true genealogical table of the
Slavonic dialects, rather than adjourn its solution to the
time of more information and stricter method, he prefers to
draw the inference that " the several Slavonic languages" are
" relics of co-existing dialects which existed from the begin-
ning." And this, although he holds and teaches that the
ancestors of the Slavonians once spoke a common tongue
together with those of the Lithuanians and Hindus ! We
have no right to be surprised, then, that in his more theoretic

chapters we meet with some very curious statements and inferences. Thus (i. 214): "the more barbarous a society is, the more numerous will be the languages that it speaks." This is far from being true in its form as given ; for " a society " is a more restricted entity even than a community ; a single society, barbarous or enlightened, speaks but a single tongue. But we may conjecture that the author meant to say something like this : " in a given territory, of considerable extent, the more barbarous the state of society, the more numerous will be likely to be the varieties of speech ; " and then we may give our assent, only adding that, if the territory in question has been populated from a single centre of linguistic dispersion, those numerous varieties will all be kindred dialects ; if from more than one, they will be so many different groups of dialects. To the next assertion—"the further we go back into the past, the greater must be the linguistic anarchy with which we meet"—we totally object : it is true only if we stop at that nearer " beginning " at which the Slavonic languages are co-existing dialects, instead of going back to the yet remoter period (still far enough from the actual beginning) when Sanskrit and Lithuanian and Slavonian were " one common language." But farther : "A language begins with dialects, and since language is the product and reflection of the community that uses it, the primæval languages of the world must have been as infinitely numerous as the communities that spoke them " (and again, in nearly the same words, at ii. 32 and ii. 322). This demonstration of the original infinity of dialects, by the way, reminds us of nothing so much as of the theory put forward some years ago by a certain distinguished French scholar (still living) as to the original population of the globe. Since, he pointed out, each person has two parents, four grandparents, eight great-grandparents, and so on, the numbers doubling with each generation, and becoming, even in the limited period between us and the patriarch Joseph, expressible only by a row of figures reaching clear across the page, it follows that there must have been vastly more people living some thousands of years ago than there are at present. Here we have, ready

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made and provided, the infinitely numerous " confederacies, clans, and tribes" who are to speak Müller and Sayce's infinite number of dialects; and one does not see how they could have been obtained in any other way. But to come back to Mr. Sayce's assertion: each one of us may be willing to allow that the varieties of speech have at every epoch in the world's history been *as* numerous as the communities; but the question at once comes up: how many were the " primæval " communities? Have we here another of those beginnings behind which lies a series of yet earlier beginnings ? If Mr. Sayce will plant himself on any definite point in the development of man and of language, and will say: "this is, for the moment, my primæval beginning; look around, and you will observe that there are just as many languages as there are communities," we shall all heartily answer " quite so." Then if he goes on: " yes; but you see that the languages are dialects ; " we shall retort: "true enough, but each body of dialects is the result of common descent from a pre-primæ-val ancestor; and if you will go back to that pre-primæval time, or still farther, to an ante-pre-primæval—or, let us say, to the real simon-pure ultimate beginning, behind which there actually is not anything, you will find that there are still just as many languages as communities, whether one or more than one; but, if they are more than one, they are not dialects."

Only a sentence or two more remain to be quoted before leaving Mr. Sayce. " We start with the Babel of confusion, with the houseless savage who did that which was right in his own eyes." This, like part of the preceding sentence, has a tone and value much more rhetorical than scientific. A language is certainly not the " product," except to a very limited extent, of the community that at any given time are using it; it is in the main their inheritance, something handed down to them ; and either individual or community can receive in this way a tongue not produced even by his or their own ancestors. If it becomes their " reflection "—which we may allow to be true, because the indefiniteness of the term at any rate admits a true interpretation—it becomes so simply because they do with it that which is right in their own eyes:

that is to say, they use it for their own purposes and in adaptation to their own circumstances, and no others.   That this is true of savages, whether houseless or housed, any more than of civilized people, is not to be admitted.   The savage has not, any more than the civilized man, either the disposition or the power to change his speech arbitrarily, for the sake of change ; and the assent of their communities is just as necessary in the one case as in the other ; but civilization brings to bear on language a number of conservative influences which check the rate of its alteration.   All the perfection of Roman house-architecture, we see, has not prevented the growth and infinite divarication of the Romanic dialects.   Mr. Sayce even has a peculiar theory, which peeps out here and there, that civilization is the real ruin of a language.   Moreover, we have to contrast with his theory of the houseless savage dealing savagely with an equally shelterless speech that other one which is later (ii. 318) put forth by him : namely, that language " did not grow up until man had become a 'social animal,' and had passed from the merely gregarious stage of existence into that of settled communities." If we must choose between them, we shall be apt to choose the former as the better of the two ; for the picture of men settling themselves down in communities without the possession and aid of speech is one that few minds will be able to conceive. Nor is it clear how this is to be reconciled with the doctrine of the next sentence in the passage with which we have been dealing : " Language, it is true, first cemented society together ;" 'although our author immediately adds, by way of antidote, " but it also made each society a body of hostile units."   This sounds very like the " attraction of repulsion," or the affirmative negative ; but possibly Mr. Sayce only meant to say " it also made each society a unit hostile to other similar units ;" even this form of statement, however, would need further modification to be made true ; and its amendment may be best given up, as a too difficult and ungrateful task.

We have thus examined a single conspicuous example, but an example only, of the way in which the great problems of

language are dealt with by what may be called the Genial school of linguistics, the school which at every point strives to say something interesting or striking, without heeding what relation this bears to what has been said elsewhere. There is obviously nothing in such work which has just title to the name of scientific. Science implies a certain solidity of basis, rigor of method, and coherency of results obtained. If an author on optics were to maintain in one chapter that black is green, and in another that it is red, he would not be likely to receive much attention from his colleagues, however he might succeed for a while in keeping the ear of the public by his power of lively description. That thus far it is otherwise in linguistics is due partly to the newness of the study, and partly to the less material and palpable character of the matters with which it deals. Doubtless the case will by degrees improve, and the time will come when, even respecting language, a writer will not be listened to unless he has the ability and takes the pains to think deeply and consecutively enough to make the doctrines he teaches logically coherent.

IX.—*The Kindred Germanic Words of German and English,
exhibited with reference to their Consonant-Relations.*

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The object of this paper is to put together, for convenience
of reference and use, the historically-related words of English
and German, so far as they illustrate the so-called " Grimm's
Law" of the Germanic rotation of mutes. The general law
is stated by Grimm as follows: " In the labial, lingual, and
guttural sounds the Gothic (Saxon, Frisian, Scandinavian)
surds correspond to the High-German aspirates, the Gothic
sonants to the High-German surds, and the Gothic aspirates
to the High-German sonants. Or, more exactly, as follows:

Goth.	p	b	f	t	d	th	k		g	
H. Germ.	f	p	$b(v)$	z	t	d	ch	k	g	"

The law as thus stated, however, expresses only the general
relation of High German to the other Germanic languages.
Even in those High-German dialects which had most fully
carried out the second process of rotation, some exceptions
have to be recognized in the guttural and labial series; and
these exceptions become much more numerous when the
whole body of High-German speech is considered. The term
" Old High-German" is generic; it comprises a variety of
dialects, used by different authors; and they show a great
many discrepancies, not least in regard to the change of
mutes, illustrating by various intermediate steps the gradual
progress from Low to High-German. In order to emphasize
this variety and indicate what High-German he is speaking
of, Grimm frequently recurs to the expression *strengalthoch-
deutsch* (i. e. Alemannic and Bavarian), and he would prefer
to use, instead of the generic term " Old High-German," the
specific terms Alemannic, Bavarian, Frankish, etc., if the
literary remains allowed of such a strict classification.

A matter not always sufficiently considered should here be noticed, namely, the relative uncertainty of pronunciation during the periods in question; for the want of a strict phonetic spelling, as well as the inaccuracy of copyists, will of necessity veil more or less the phonetic nature of all ancient records.

This variety and uncertainty within the Old High-German dialects nowise detract from the significance of the general law demonstrated by Grimm; they only show that, here as elsewhere, linguistic changes are effected not by a wholesale ideal regularity, but by the realistic irregularity—determined, however, ultimately by law—of historical growth. The rotation of mutes within the Germanic tongues is once for all clearly proved, but the very unevenness of the process— whatever be its cause—will of necessity bring to light many varied phases of change, if only a sufficiently comprehensive research is made; and it thus warns us to be cautious about applying its theoretic formula rigidly in all cases.

This applies with especial force to the comparison of two such languages as English and German. Modern German is somewhat loosely spoken of as a descendant of the Old High-German and an inheritor of its phonetic laws. But the vagueness of the name Old High-German itself, as pointed out above, involves this statement in an uncertainty which can be removed only by a more exact definition. The literary language of Germany sprang undoubtedly, in the main, from one of the Old High-German dialects, though with a goodly admixture from the others and from Low-German; but that dialect was more nearly related to the idiom used in Otfried and in the version of Tatian (which bordered on the Low-German) than to the strictest Old High-German. The result is that Modern German shows a considerable deviation from the full requirements of Grimm's law, especially in regard to palatals and labials; in this, partly agreeing with the Middle High-German—which, however (with various differences between initials, medials, and finals), is more closely related to the rigid Old High-German than is the New-German. But, aside from this derivation, the phonetic character of the New-

German vocabulary is removed from the theoretic norm of the High-German not only by borrowing from other Teutonic tongues, especially from different High-German dialects and from Low-German (and, indeed, from non-Germanic tongues as well, though that is not here considered), and to some degree, by the reactive influence of this borrowing, but also by the inner changes wrought out during a long period of independent existence.

New-German, on the one hand, is a varied form of a less strict Old High-German dialect; but, on the other, English, the descendant of Anglo-Saxon and the inheritor of its phonetic structure, has also not remained stationary during the many centuries of its life. Aside from the sweeping changes effected by the loss of single letters and endings and by the mutation of vowels—changes with which we are here only indirectly concerned—the consonant-system has been variously altered: witness, for instance, the development of the sounds *ch* and *j*, the change of *g* to *y*, of *sc* to *sh*, of *f* to *v*, etc., noticed below. The phonetic relation between German and English must therefore show many deviations from that which existed between Anglo-Saxon and the rigid Old High-German. It is intended in the following to exhibit definitely that relation, by means of a tolerably complete collection of kindred words illustrating it.

The principle followed in collecting the words has been this: to give, along with its English and Anglo-Saxon correspondent, every German root-word and its strictest extant Old High-German form (but other older forms only when they throw light on the point in question); and, further, every derivative of that root-word in so far as it exhibits any new phonetic combination, or has deviated otherwise in form to such an extent as not to be easily recognizable in its relation to the root. It would evidently be a waste of space to give compounds or derivatives whose connection is evident at a glance (such, for instance, as *Sprecher* from *sprechen, frachten* from *Fracht*, etc.), unless they exhibit a varied phonetic relation (as in *Sprache, speech*, from *sprechen, speak*), or combination (as in *Macht* from *mögen, Tode* from *Tod:* see

below). But, on the other hand, it would be impracticable to trace all words back to their ultimate sources and to exclude some on account of their remote relationship with others of a quite different form and meaning (to exclude, for instance, *garden*, because it is derived from the root represented by Goth. *gairdan = gürden*, or *Wald*, because it probably comes from the same root as *wild*). The only acceptable way seemed to be to give all words which are not clearly akin in form and meaning with other German words, and which have therefore an independent existence in the mind of the common speaker. Further, proper names and onomatopoetic interjections have, for evident reasons, been excluded. Further, Germanic words which have passed through Latin or any of the Romance languages before they were again incorporated in a new sense into German or English (such as *Glocke*, through Lat. *clocca* from O.H.G. *cloccon*) are omitted. Once more, non-Germanic words borrowed from foreign languages, even when they have been so fully naturalized as to follow the general current of transmutation (like *Sichel*, *sickle*, from Lat. *secula; Pech*, *pitch*, from Lat. *pix; Schule*, *school*, from Lat. *schola; Ziegel*, *tile*, from Lat. *tegula; Wittwe*, *widow*, apparently from Lat. *vidua ;* and many others).

In regard to arrangement the method followed is, to make the comparison throughout from a German starting-point, except in the rare cases where English words contained consonants which have been dropped in German. For the sake of unity of treatment and ease of reference, it seemed best to proceed always from one of the two languages to the other; and the German offers the advantage of possessing fuller forms, and of having lost original consonants much more rarely than the English. Further, the words are arranged according as the consonants under consideration occur at their beginning, middle, or end.

Finally, the whole subject is, for convenience of comparison, treated under these four heads:

    I.   Palatal mutes, fricatives, and nasals;

    II.   Dental (lingual) mutes, and fricatives;

   III. Labial mutes, and fricatives;

   IV. Nasals (except palatal), semi-vowels, and *h*.

The abbreviations used (as O.H.G. for Old High-German, A.S. for Anglo-Saxon, O.N. for Old Norse, etc.), and the designation of some English sounds, are all self-explaining from their connection. The words given in parentheses after the German and English words are invariably their corresponding strict Old High-German and Anglo-Saxon forms, unless otherwise specified.

I.—PALATAL MUTES, FRICATIVES, AND NASALS.

1. German *k* = English *k*.

A. INITIAL: *kahl* (chalo), *callow* (calu); *Kalb* (chalp), *calf* (cealf); *kalt* (chalt), *cold* (ceald); *Kamm* (champ), *comb* (camb); *keck, quick* (chêch, quêc), *quick* (cwic); *kennen* (chennan), *ken* (cennan); *Kerbe* (wanting in O.H.G.), *kerp* (cyrf); *Kern* (chêrno), *kernel* (cyrnel); *Kiel* (chiol), *keel* (ciol); *Kiel* (wanting in O.H.G.), *quill* (wanting in A.S.); *klappen, klaffen* (chlaphôn), *clap* (clappan); *Klaue* (chlâva), *claw* (clawu); *kleben* (chlêpên), *cleave* (cleofian); *Klee* (chlêo), *clover* (claefcr); *Klei* (from L.G.), *clay* (claeg); *Kleid* (wanting in O.H.G.), *cloth* (clâdh); *klein* (chleini), *clean* (claenc); *klieben* (chliopan), *cleave* (cleofan); *klingen* (chlingan), *clink, clang* (wanting in A.S.); *Klippe* (from L.G.), *cliff* (clif); *klopfen* (chlophôn), *clap* (clappan); *Kloss, Klotz* (chlôz), *clod* (clot); *Kluft* (chluft), *cleft* (from clifan); *Klumpen* (wanting in O.H.G.), *clump* (wanting in A.S.); *Knau(e)l, Knäuel* (dimin. of chliwi), *clew* (cliwe); *Kohle* (chol), *coal* (col); *kommen* (chuêman), *come* (cuman); *König* (chunninc), *king* (cyning); *Korn* (chorn), *corn* (corn); *krachen* (chrabhôn), *crack* (cracian); *Kraft* (chraft), *craft* (cräft); *Krähe* (chraia), *crow* (crawe); *Krahn, Kranich* (chranuh), *crane* (cran); *Krampe* (chrampâ), *cramp*-iron (wanting in A.S.); *Krampf* (wanting in O.H.G., but from chrimphan), *cramp* (wanting in A.S., but see krimpen); *krank* (wanting in O.H.G.), *crank* (cranc); *kratzen* (chrazôn), *(s)cratch* (wanting in A.S.); *kriecken* (chriohhan), *crouch = crook?; krimpen* (chrimphan), *crimp* (crimpan); *Krippe* (chrippa), *crib* (cryb); *kritteln* (wanting in O.H.G.), *crowd* (creodan); *Krücke* (chruchâ), *crutch* (crycc?) (perhaps from Lat. *crux*); *Krume* (wanting in O.H.G.), *crum(b)* (crume); *krumm* (chrump), *crump* (crumb); *Krüppel* (wanting in O.H.G.), *cripple* (crypel); *Kuh* (chuo), *cow* (cu); *kühl* (chuoli), *cool* (col); *kühn* (chuoni), *keen* (cyne); *Kuss* (chus), *kiss* (coss); *Qualm* (qualm), *qualm* (cwealm).

B. MEDIAL: *Acker* (acchar), *acre* (acer); *backen* (pachan), *bake* (bakan); *Bake* (pouhhan), *beacon* (beacen); *Balken* (palcho), *balk* (balc); *baxen* (fr. L.G. baksen; M.H.G. puxen), *box* (wanting in A.S.); *blinken* (wanting in O.H.G., but planch, 'blanc'), *blink* (blican?); *Borke* (fr. L.G.), *bark* (wanting in A.S.); *decken* (decchan), *deck* (theccan); *denken* (denchan), *think* (thencean); *ducken* (from tûhhan), *duck* (wanting in A.S.); *Ecker* (wanting in O.H.G.), *acorn* (aecern); *Enkel* (anchal), *ancle* (ancleov); *Flachs* (flahs), *flax* (fleax); *Fuchs* (fuhs), *fox* (fox); *gackeln* (M.H.G. gagen), *cackle* (wanting in A.S.); *glucken* (wanting in O.H.G.), *cluck* (cloccan); *hacken* (wanting in O.H.G.), *hack* (haccan); *Haken* (haccho), *hook* (hoc); *Höke* (wanting in

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o.h.g.), *hawker* (wanting in a.s.); *knacken* (wanting in o.h.g.), *knack* (wanting in a.s.); *lecken* (lechôn), *lick* (liccan); *lenken* (wanting in o.h.g.), *link* (wanting in a.s.); *Locke* (locch), *lock* (locc); *Luke* (wanting in o.h.g.), *lock* (loc); *melken* (mělchan), *milk* (melcan); *nächst* (nâhist), *next* (nexta); *Nacken* (hnacch), *neck* (hnaecca); *nackt* (nachot), *naked* (nacod); *Ochs* (ohso), *ox* (oxa); *pflücken* (ploccôn), *pluck* (pluccian?); *picken* (picchan), *pick* (pyccan?); *Poike* (wanting in o.h.g.), *pock* (pocc); *Pökel* (wanting in o.h.g.), *pickle* (wanting in a.s.?); *recken* (recchan), *rack* (raeccan); *Rocken* (roccho), *rock* (wanting in a.s.); *Schenkel* (schenchil?), *shank* (sceanca); *Smack* (fr. l.g.), *smack* (snacc); *schuckern* (wanting in o.h.g.), *shock* (wanting in a.s.); *sechs* (sěhs), *six* (six); *sinken* (sinchan), *sink* (sincan); *stecken* (stěhhan), *stick* (stician); *stinken* (stinchan), *stink* (stincan); *trinken* (trinchan), *drink* (drincan); *Wachs* (wahs), *wax* (veax); *wachsen* (wahsan), *wax* (veaxen); *winken* (winchan), *wink* (wincian); *Zecke* (wanting in o.h.g.), *tick* (wanting in a.s.); *zirken* (probably from e.), *chirk* (wanting in a.s.); *zwicken* (zuicchan), *tweak* (twiccian); *zwinken* (zuincho-), *twinkle* (twinclian).

C. Final: *Back* (fr. l.g.), *back* (baec); *Bank* (panch), *bank* (banc); *Block* (piloh), *block* (wanting in a.s.); *Bock* (pocch), *buck* (bucca); *Dank* (danch), *thanks* (thanc); *dick* (dicchi), *thick* (thicce); *Glück* (wanting in o.h.g.), *luck* (wanting in a.s.); *keck* (chech, quec), *quick* (cwic); *krank* (wanting in o.h.g.), *crank* (cranc); *leck* (from l.g.), *leaky* (hlecc); *Mark* (marha), *mark* (meark); *Mark* (march), *mark* (marc); *Schmack* (smach), *smack* (smăc); *Schock* (wanting in o.h.g.), *shock* (wanting in a.s.); *stark* (starh), *stark* (stearc); *Stock* (stocch), *stock* (stocc); *Volk* (folch), *folk* (folc); *Werk* (wěrach), *work* (weorc); *Wrack* (from l.g.), *wreck* (wanting in a.s.).

According to this list, German *k* corresponds to English *k* as initial in 53 words, as medial in 50 words, and as final in 19 words. Several of these words are not represented in the Old High-German; and in order to establish the relation between German and English, as compared with the Old High-German and the Anglo-Saxon, they should be excluded. The numbers are then: initial 44, medial 36, final 13. Many are likewise wanting in Anglo-Saxon, but being borrowed, as a rule, from dialects phonetically on a level with the Anglo-Saxon, they need not be specially considered.

The Anglo-Saxon forms have without exception *k* (*c*); and the Old High-German forms have all (save *ploccon*) *ch, hh,* or *h*, probably signs for very slightly differentiated pronunciations of the aspirated *k* (the theoretical *kh*), but used rather promiscuously, though *ch* prevails as initial, *hh* as medial, and *h* (*ch*) as final. The German *k* has, then, in these words remained stationary.

2. German *k* = English *ch*.

A. INITIAL: *Käfer* (chĕvar), *chafer* (ceafor); *karg* (charag), *chary* (cearig); *Kauf* (chouf), *cheap* (ceap); *Kiesel* (chisil), *chisle-* (cisil, ccsel); *kiesen, küren* (chiosan), *choose* (ceosan); *Kimme* (fr. L.G.), *chimb* (wanting in A.S.); *Kinn* (chinni), *chin* (cin); *kippen* (wanting in O.H.G.), *chip* (wanting in A.S.); *Küchlein* (wanting in O.H.G.), *chicken* (cicen).

B. MEDIAL: *Birke* (piricha), *birch* (bcorc); *Krücke* (chruchâ), *crutch* (crycc?) (perhaps from Lat. *crux*); *recken* (recchan), *reach* (recian); *renken* (-renkan), *wrench* (wrencan); *Stärke* (starchî), *starch* (in A S. only stearc, 'strong'); *sticken* (stitch, but not the verb), *stitch* (stician); *strecken* (strecchan), *stretch* (streccan); *zwicken* (-zuicchan), *twitch* (twiccian).

C. FINAL: *Bank* (panch), *bench* (benc); *Fink* (fincho), *finch* (finc).

Thus, German *k* corresponds to English *ch* as initial in 9 words (3 wanting in O.H.G.), as medial in 7 words, and as final in 2 words.

The Anglo-Saxon forms have, wherever found, *c* (always, except when final and in *wrencan, streccan,* preceding *e, i,* or *y:* compare *g = y*); and the Old High-German forms (except in *-renkan*), *ch,* the aspirated form of *k.*

3. German *k* = English *g*.

A. INITIAL: nothing.

B. MEDIAL: *drücken* (drucchan), *trig* (thryccan); *Hexe* (hagazussa), *hag* (hagtesse); *Nickel* (fr. L.G.), *nag* (wanting in A.S.); *Schlucke* (wanting in O.H.G.), *slag* (wanting in A.S.); *trecken* (wanting in O.H.G.), *drag* (dragan); *wackeln* (wagôn), *wag* (wagian).

C. FINAL: *Pflock* (wanting in O.H.G.), *plug* (wanting in A.S.?).

German *k,* then, corresponds to English *g* as medial in 6 words (3 wanting in O.H.G.), and as final doubtfully in one. Two of the three Old High-German forms have *g,* in this agreeing with the Anglo-Saxon; and one *cch,* corresponding to Anglo-Saxon *cc.* The others are doubtful.

4. German *k* = English *j* (written *dg*).

MEDIAL: *Brücke* (pruccâ), *bridge* (brycg); *Ecke* (ekka), *edge* (ecg); *Hecke* (hegga), *hedge* (hegge); *Mücke* (mucca), *midge* (mycg); *Rücken* (hrucki), *ridge* (hrycg).

In these five words (except for *Hecke*) the Old High-German form has *k* (also *g*), and the Anglo-Saxon *cg.* The words are nearly all of uncertain derivation and connection.

5. German *k* = English *t, th.*

INITIAL: *Quehle* (duahilâ, M.H.G. twehele, N.G. also *Zwehle*), *towel* (wanting in A.S.); *quengeln* (from duengil, akin to M.H.G. twingen), *twinge* (wanting in A.S.); *Quirl* (thuiril = duiril?, from dueran), *twirl* (thwiril): *quer* (twĕr, late), *thwart* (thweor).

In three words, German *k* corresponds to English *t* and once to *th*. The lingual is the original sound, and the German *k* an abnormal deviation.

6. German *k* not represented in English pronunciation.

A. INITIAL: *Knabe* (knabo), *knave* (cnapa); *knacken* (wanting in O.H.G.), *knack* (wanting in A.S.); *knappen, Knapsack* (wanting in O.H.G.), *knap, knapsack* (wanting in A.S.); *knastern* (from L.G.), *gnash* (wanting in A.S. ?); *Knauf* (= Knopf), *knob, knop* (cnaep); *Knecht* (chnĕht), *knight* (cniht); *Kneif* (from L.G.), *knife* (cnif); *kneten* (chnĕtan), *knead* (chnedan); *Knie* (chniu), *knee* (cneov); *Knochen, Knöchel* (from L.G.), *knuckle* (cnucl); *Knollen* (chnollo), *knoll* (cnoll); *Knopf* (chnoph), *knob, knop* (cnaep); *Knoten* (chnodo), *knot* (cnot); *knütten* (from L.G.), *knit* (cnyttan).
B. MEDIAL: *Deichsel* (dihsala), *thill* (thisla); *trocken* (trucchan), *dry* (dryg, dryge).
C. FINAL: *Mark* (marac), *marrow* (mearh; O.N. mergr).

Here the German *k* is unrepresented in English pronunciation as initial in 14 words (7 wanting in O.H.G.), as medial in 2 words, and as final in one word. It is chiefly before *n* that English *k* (A.S. *c*) is dropped in pronunciation. The forms in Old High-German have generally the usual aspiration of *k, ch*. The vowel-substitute for the lost guttural in *dry* and *marrow* is analogous to that observed further on in words with a lost *g* (see German *g* = English vowel-change, in 13, below).

7. German *ñk* = English *ñ*.

MEDIAL: *henken* (henchan), *hang* (hangan); *schlenkern* (from slengira), *sling* (slingan).

In both these words, the German seems to represent better than the Old High-German the expected mutation (in this respect differing from the nearest kindred to *hang* and *sling, hangen, schlingen*).

8. German *g* = English *g*.

A. INITIAL: *Galgen* (kalgo), *gallow* (galga); *Galle* (calla), *gall* (gealla); *Gans* (kans), *goose* (gôs for gons); *Garten* (karto), *garden* (wanting in A.S.,

but geard, 'yard'); *Gasse* (gaza, from kezan), *gate* (geat); *Gast* (kast), *guest* (gaest); *Gauch* (kouch), *gawk* (geak); *Gaum* (kuomo), *gum* (goma); *geben* (kepan), *give* (gifan); *gegen* (kakan), *'gainst* (gean); *gehen* (kan), *go* (gangan); *Gehre* (kero), *gore* (gar); *Geiss* (keiz), *goat* (gat); *gelten* (keltan), *-geld* (geldan); *gelzen* (only the noun galzu), *geld* (only gylte); *Gerste* (kerstû), *grist* (grist, gerst); *Giebel* (kipil), *gable* (wanting in A.S.; *gable* probably through Fr.); *giessen* (kiozan), *gush* (wanting in A.S.); *Gilde* (from L.G. *gilde*, and akin to *Geld*), *guild* (gild); *be-ginnen* (pikinnan), *be-gin* (beginnan); *Glanz* (glanz? but the verb clenzan), *glance* (wanting in A.S.); *Glas* (klas), *glass* (glaes); *glatto* (klat), *glad* (glad); *Gold* (kold), *gold* (gold); *Gott* (kot), *god* (god); *graben* (krapan), *grave* (grafan); *gram* (gram, late, but kremjan). *grim* (gram); *Gras* (kras), *grass* (graes); *grass* (adv. grazzo), *grisly* (grislic); *grau* (krao), *grey* (graeg); *grauen* (-gruen), *grewsome* (wanting in A.S.); *reifen* (krîfan), *gripe* (gripan); *grell* (wanting in O.H.G.), *grill* (A.S. the verb grellan); *Griess*, *Grütze* (krioz), *grit*, *groats* (greot); *grob* (gerob), *gruff* (wanting in A.S.); *gross* (kroz), *great* (great); *grün* (kruoni), *green* (grene); *Grund* (krunt), *ground* (grund); *grunzen* (grunzen, but krunnizod), *grunt* (grunnan); *grüssen* (kruozan), *greet* (grêtan); *Gurt*, *gürten* (kurtan), *gird* (gyrdan); *gut* (kuot), *good* (god).

B. MEDIAL: *Flagge* (from L.G.), *flag* (wanting in A.S.); *mager* (magar), *meagre* (mâger); *schmiegen* (wanting in O.H.G.), *smug*, *smuggle* (smûgan); *tragen* (trakan), *drag* (dragan); *wegen* (wekan, wegan), *wag* (wegan): *Wagen* from *wegen*; *Zarge* (zarga), *target* (targe?).

C. FINAL: *Berg* (perac), *berg* (beorh); *Burg* (puruc), *burg* (byrig); *Zwey* (zuic), *twig* (twig).

According to this list, German *g* corresponds to English *g* as initial in 42 words (2 wanting in O.H.G.), as medial in 6 words (2 wanting in O.H.G.), and as final in 3 words. The Anglo-Saxon forms have *g* everywhere, except only in *beorh* (O.E. *bergh*); and the Old High-German shows in 41 of its 47 forms the expected *k*. The exceptions are *galza, grazzo, -gruen*, none of them direct correspondents, *gerob, magar, wegan*. (In four others, *k*, by inference from kindred words.)

It should be noticed that the frequent quasi-aspiration of final and medial *g* is here disregarded. When carried out, it is in fact a further progression of the Old High-German *k*.

9. German *g* = English *y*.

A. INITIAL: *Garten* (karto), *yard* (geard); *gähnen* (kenen), *yawn* (ganian, geonian); *gähren* (jesan), *yeast* (gist); *gar* (karo), *yare* (gearn); *Garn* (karn), *yarn* (gearn); *gelb* (kelo), *yellow* (geolo); *gelfen* (from kelf), *yelp* (gelpan); *gern* (kerno), *yearn* (georne).—Compare also: *Auge, eye; fliegen, fly; liegen, lie; lügen, lie*, below.

In these eight words the Anglo-Saxon form has *g* (before an *e:* compare *k = ch,* above)'; and in seven of them the strictest Old High-German forms have the expected *k.*

10. German *g* = English *k.*

A. INITIAL: *gackeln* (wanting in O.H.G.), *cackle* (wanting in A.S.); *glucken* (wanting in O.H.G.), *cluck* (cluccan).

B. MEDIAL: *biegsam* (from piokan), *buxom* (bocsum); *saugen* (sugan), *suck* (sucan).

The apparently retrogressive change of the palatal in these four words is of too uncertain a character to prove anything. Only two of them are represented in the Old High-German, and their palatals do not agree. The Anglo-Saxon is consistent in showing *k.*

11. German *g* = English *j.*

A. INITIAL: *Gimpel* (from M.H.G. gumpen, 'jump'), *jump* (not found in A.S.).

B. MEDIAL: *hegen* (hekjan), *hedge* (hegian).

12. German *g* = English *f.*

FINAL: *genug* (kannok), *enough* (genog, genoh); *Trog* (troc), *trough* (trog); *Twerg* (tuerc), *dwarf* (dweorg).

In these three words, the English *f* is an anamolous deviation from the original palatal sound.

13. German *g* is represented in English, for the most part, by some vowel-change or extension.

A. INITIAL: *ge-* = (ka-), *y-*, *e-*nough (ge-); *gleich=ge-leich* (ka-llh), *like* (ge-llc, llc).

B. MEDIAL: *Auge* (ouga), *eye* (egge); *biegen, beugen* (piokan), *bow* (bugan); *bergen, Her-berge* (perkan, heri-pĕrgon), *bury, har-bor* (beorgan, here-berga); *Bogen* (poko), *bow* (boga); *borgen* (porakan), *borrow* (borgian); *Degen* (dekan), *thane* (thegen); *eigen* (eikan), *own* (agen); *fegen* (fagon), *fair* (fäger); *Felge* (felaga), *felly, felloe* (felga); *Fälge* (felaga), *fallow* (fealga); *fliegen* (fliokan), *fly* (fleogan); *folgen* (folken), *follow* (fylgan); *Galgen* (kalgo), *gallow* (galga); *gegen* (kakan), *gain-* (gegn, gean); *Hagel* (hakal), *hail* (hagal); *Hügel* (from M.H.G. huvel), *hill* (hill, hyl); *Lauge* (louga), *lye* (laeg, leah); *legen* (lekjan), *lay* (lecgen); *liegen* (likkan), *lie* (licgan); *lügen* (liokan), *lie* (leogan); *Magd* (makad), *maid* (maegedh); *Mogen* (mago), *maw* (maga); *mögen* (magan), *may* (magan); *manig-* (manec), *many* (manig); *Morgen* (morkan), *morrow, morn* (morgen); *Nagel* (nagal), *nail* (naegel); *nagen*

(gi-nakan), *gnaw* (gnagan); *Regen* (rekan), *rain* (regn); *Rogen* (rogan), *roe* (wanting in A.S.); *Roggen* (rocco), *rye* (ryge); *Sage* (saga, but saken), *saw* sagu. obs.); *Säge* (saga), *saw* (sage); *sagen* (saken), *say* (secgan); *schwelgen* (suelkan), *swallow* (svelgan); *Segel* (sekal), *sail* (segel); *Sorge* (soraga, but sorken), *sorrow* (sorg); *tragen* (trakan), *draw* (dragan); *Vogel* (focal), *fowl* (fugol); *wägen* (wekan), *weigh* (wegan); *Zagel* (zagal), *tail* (taegel).

C. FINAL: *Balg* (palk), *belly, bellows* (baelg); *Burg* (puruk), *borough* (byrig); *emsig* (emizico), *empty* (aemtig); *Honig* (honic), *honey* (hunig); *karg* (charag), *chary* (cearig); *Pflug* (plôh, phlough, phluoch), *plough* (wanting in A.S.); *selig* (salic), *silly* (saelig); *Tag* (tac), *day* (daeg); *Talg* (from L.G.), *tallow* (telg); *Teig* (teic), *dough* (dag); *Weg* (wec), *way* (weg); *zwanzig* etc. (zweinzuc), *twenty* etc. (twentig): to which should be added some rather freely formed adjectives in -ig like *wind-ig* (wint-ac), *wind-y* (wind-ig).

It thus appears that German *g* is unrepresented in English except by some vowel-change: as initial in one word (*ge-*, entering more or less clearly into several combinations), as medial in 37 words, and as final in 13 words (some of which are formed in common by the suffiix -*ig*). It is worthy of notice that certain series of vowel-sounds occur in English before the lost *g*. The most common are those represented by *ai, ow* in *maid, gallow*, each (waiving some slight differences) occurring in 15 words; and by *y* in *empty*, occurring in 10 words (in some of which, however, it is only the Anglo-Saxon *i*). The remainder are about equally divided between those represented in *saw, bow,* and *lie.*

Wherever a word is found in Anglo-Saxon (in only two instances it is wanting), it has *g* (3 times *cg*), which corresponds to the German *g;* and the strict Old High-German has in 36 of its 48 words the expected *k* (a couple of times, by inference from kindred forms). Only two words are not found represented in the Old High-German. In regard to the pronunciation of final and medial *g* compare what is said on p. 121.

14. German *g* = English *ñ.*

FINAL: *König* (chunninc), *king* (cyning).

15. German *ñ* = English *ñ.*

A. MEDIAL: *bringen* (prinkan), *bring* (bringan); *dringen* (dringan, pret. dranc), *throng* (thringan); *fangen* (fahan), *fang* (fangan); *hangen* (hahan, pret. hianc), *hang* (hangan); *klingen* (chlingan, pret. chlanc, klinkan),

clang (wanting in A.S.); *Lunge* (lungunna), *lung* (lunge); *Pranger* (wanting in O.H.G.), *prong* (wanting in A.S.); *ringen* (rinkan), *wring* (wringan); *schlingen* (slingen, but slinka), *sling* (slingan); *schwingen* (suinkan), *swing* (swingan); *singen* (sinkan), *sing* (singan); *Spange* (spangâ), *spang* obsol. (spange); *springen* (sprincan), *spring* (springan); *strenge* (strenki), *strong* (strang); *Zange* (zanka), *tongs* (tangc); *Zunge* (zuungâ), *tongue* (tunge).

    B. FINAL: *Ding* (dinc), *thing* (thing); *Dung* (tunga), *dung* (dung); *jung* (junc), *young* (geong); *lang* (lanc), *long* (lang); *Ring* (hrink), *ring* (hring); *Strang* (stranc), *string* (streng). To these should be added words in *-ung* (-unka), akin to Engl. words in *-ing* (-ung, -ing).

There are thus 23 words (only one not found in the Old High-German) in which the German ñ and English guttural nasals correspond (in 15 of them as medial, and in 7 as final). The Anglo-Saxon forms of these words (wanting only in two instances) have everywhere *ñg*, and 15 of the strictest Old High-German forms (a few by inference from kindred forms) have the expected *ñk*. Four have *ñg*, and two *h;* but their representatives in Modern German, *fangen, hangen,* seem to have come through the Low-German.

16. German ñ = English ñ-*g*.

    MEDIAL: *Angel* (angul), *angle* (angel); *Finger* (fingar), *finger* (finger); *mengen* (mengan), *mingle* (mengan).

In these three words, as is seen, the Old High-German and Anglo-Saxon forms agree in regard to the palatal nasal.

17. German ñ = English ñ-*k*.

    MEDIAL: *Klingen* (chlingan, klinkan), *clink* (wanting in A.S.); *sprengen* (sprengan), *sprinkle* (sprengan, sprencan).

18. German ñ = English ñ-*j*.

    MEDIAL: *Sengen* (senkan), *singe* (sengan); *zwingen* (duinkan), *twinge* (O. Sax. thuingan?).

19. English *g* not represented in German.

    FINAL: *egg* (acg), *Ei* (ei, pl. eigir; from an older egi).

20. German *ch* = English *k*.

    A. MEDIAL: *brauchen* (prûhhan), *brook* (brûcan); *brechen* (prĕhhan), *break* (brecan); *-chen* (-chîn), *-kin* (-cyn?); *dicht* (from dîhan), *thick* (thicce); *Eiche* (eih), *oak* (âk); *Habicht* (hapuh), *hawk* (hafok); *Hechel* (wanting in O.H.G.), *heckle* (wanting in A.S.); *horchen* (hôrechôn), *hearken* (hĕrcnian);

Joch (joh), *yoke* (geoc); *Knochen, Knöchel* (from L.G.), *knuckle* (cnucl); *Küchlein* (wanting in O.H.G.), *chicken* (cycen); *lechen* (lěchen), *leak* (leccan); *Lerche* (lěrahhâ), *lark* (lâverke); *machen* (mahhôn), *make* (makian); *rächen* (rěhhan), *wreak* (wrekan); *Rechen* (rěhho), *rake* (race); *rechnen* (rehhanôn), *reckon* (reknan); *riechen* (riohhan), *reek* (rěkan); *Sache* (sahha), *sake* (sacu); *schleichen* (slîhhan), *slink* (slincan); *Speiche* (speichâ), *spoke* (spâce); *sprechen* (sprěhhan), *speak* (sprecan); *streichen* (strîhhan), *strike* (strîcan); *suchen* (suohhan), *seek* (sěkean); *tauchen* (tûhhan), *duck* (wanting in A.S.); *wachen* (wahhěn), *wake* (wakian); *Woche* (wěhhâ), *week* (wike, wuke); *Zeichen* (zeihhan), *token* (tâken); *Zieche* (ziechâ), *tick* (wanting in A.S. ?).

B. FINAL: *auch* (ouh), *eke* (eac); *Bach* (pah), *beck* (becc); *bleich* (pleih), *bleak* (blěk); *Bloch* (piloh), *block* (wanting in A.S.); *Bruch* (pruoh), *brook* (brôk); *Buch* (puoh), *book* (bôk); *Deich* (fr. L.G.), *dike* (dîk); *Elch* (wanting in O.H.G.), *elk* (elch); *Ente-rich* (anetrěcho), *drake* (wanting in A.S. ?); *Gauch* (kouch), *gawk* (geak); *gleich* (kalîh), *like* (gelîc); *lech* (wanting in O.H.G., but lěchen), *leaky* (hlecc); *Loch* (lôh), *lock* (loc); *Milch* (miluh), *milk* (miluc); *Schmauch* (fr. L.G.), *smoke* (smocca); *siech* (sioh), *sick* (seok); *Storch* (storah), *stork* (store); *Teich* (wanting in O.H.G.), *dike* (dîc); *Tuch* (tuoh), *duck* (wanting in A.S.); *weich* (weih), *weak* (wâc).

German *ch*, then, corresponds to English *k* in 47 words, in 29 as a medial, and in 21 as a final. Deducting words not represented in the Old High-German the relation is, as medial 25, and as final 17.. The Anglo-Saxon form has everywhere *k* and the Old High-German form *hh* or *ch*, both these signs (probably very slightly differing in their utterance) being found for nearly every word. The permutation is therefore here complete, in so far as the German *ch* represents the aspirated *k*.

21.   German *ch* = English *ch*.

A. MEDIAL: *Buche* (puohha), *beech* (bêce); *bleichen* (blîchan), *bleach* (blîcan); *Hechel* (wanting in O.H.G.), *hatchel* (wanting in A.S.); *kriechen* (chriochan), *crouch* (wanting in A.S.); *Leiche* (lîh), *lich* (lîc); *reichen* (reichen), *reach* (raecan); *Sprache* (sprâhha), *speech* (spraec, spaec); *wachen* (wahhěn), *watch* (wacian), prov. G. *wachten*.

B. FINAL: *Bruch* (pruh), *breach* (brike); *Dach* (dah), *thatch* (thaecc); *reich* (rîhhi), *rich* (rîce); *solch* (sôlih), *such* (sulic); *welch* (huělih), *which* (hwylic).

In these 13 words the Anglo-Saxon form, wherever met with (wanting for two words), has *k*, and the Old High-German form (wanting for one word), the expected *h(h)* or *ch* (generally both) 7 times as medial and 5 as final. It is then the English *which*, by changing its original *k*-sound to the

palato-lingual *ch*, has broken the theoretical relation between the Low and High-German dialects.

22. German *ch* = English *f*.

A. MEDIAL: *lachen* (hlahhan), *laugh* (hlehhan); *sacht* (from L.G. sacht= O.H.G. samfte), *soft* (sôfte); *Schacht* (wanting in O.H.G.), *shaft* (wanting in A.S.)?; *sichten* (through L.G. from sib), *sift* (siftan).

B. FINAL: *rauch* (rûh), *rough* (rûh, hreog, reow etc.).

In these five words, the English and the German share equally the claim of originality in regard to the sounds *f* and *ch*. In two English words (*soft*, *sift*), and in two German words (*lachen*, *rauch*). the originality of the *f* and the *ch*-sounds are confirmed by both the Anglo-Saxon and the Old High-German; in two others (*laugh*, *rough*; *sacht*, *sichten*) the English *f* seems anomalously changed from the earlier palatal, and the German *ch* introduced from the Low-German. *Schacht*, *shaft* is of uncertain connection.

23. German *ch* = English *t*.

FINAL: *Zwerch* (duërah), *thwart* (thwcorh). Akin seem to be also *flach*, *flat*.

24. German *ch* is represented in English pronunciation by some vowel-change.

A. MEDIAL: *acht* (ahtô), *eight* (eahta); *dicht* (from dîhan), *tight* (tyged, tyht); *fechten* (fëhtan), *fight* (feohtan); *Flucht* (fluht), *flight* (flyht); *Fracht* (from L.G. fracht = O.H.G. frêht, ' merit '), *freight, fraught* (wanting in A.S.); *Furcht* (forahta), *fright* (fyrhtu); *Knecht* (chnëht), *knight* (cniht); *leicht* (lîhti), *light* (leoht); *Licht* (lioht), *light* (leoht); *Macht* (maht), *might* (meaht); *Morchel* (morhila), *moril*, perhaps through French (wanting in A.S.); *Nacht* (naht), *night* (neaht, niht); *nicht* (nëowiht, nieht), *nought*, *not* (nâviht, nâht); *Pflicht* (fliht), *plight* (pliht); *Pracht* (praht), *bright* (briht); *recht* (rëht), *right* (riht); *schlecht* (slëht), *slight* (wanting in A.S.); *Schlacht* (slahta), *slaughter* (sleaht); *Sicht* (siht), *sight* (siht); *tüchtig* (tuhtíc?), *doughty* (dyhtig); *Wicht* (wiht), *wight* (wiht); *-wicht* (wiht), *weight* (wiht).

B. FINAL: *doch* (doh), *though* (theah); *durch* (duruh), *through* (thurh); *euch* (iwih), *you* (eowic); *hoch* (hôh), *high* (heah); *ich* (ih), *I* (ic); *Loch* (lôh), *ley, lay* (leah); *man(i)ch* (probably from L.G.: O.H.G. form manec), *many* (manig); *nach* (nâh), *nigh* (neah).

The preceding list shows 32 English words in which the old consonant corresponding to German *ch* has been lost and compensated for by some vowel-change. The most frequent

vowel-sound is $\bar{\imath}$ (always, except in *I*, written *igh:* e. g. *Licht, light*). The remaining vowels vary among five or six sounds, and are in nine words followed in writing by the mute *gh*. The German *ch* is found in 20 words as a medial, and in 8 words as a final, one of each not being High-German.

The Anglo-Saxon and the Old High-German agree in 25 words in having an *h* corresponding to the New-German *ch*. They differ only in *ic, eowic, manig* (A.S.) and *ih, iwih, manec* (O.H.G.).

German *sch.* This palatal sibilant in German is of two kinds, organic and inorganic. In the former case it corresponds to an original *sk*, which commenced very early to be changed into *sch* before vowels (at first before *e, ei, i*), and *r*. The latter or inorganic *sch* is an anomalous palatalization of the pure dental *s* (mainly from the 14th century onward) before *l, m, n, w, u*. In English a parallel change of *sk* has taken place, but not for the pure dental sibilant. The two kinds will be kept apart.

25. German organic *sch* = English *sh*.

A. INITIAL: *schaben* (scapan), *shave* (scafan); *Schacht* (wanting in O.H.G.), *shaft* (wanting in A.S.)?; *Schaf* (scâf), *sheep* (sceâp); *schaffen* (scafôn), *shape* (scapan); *Schaft* (scâft), *shaft* (sceaft); *Schale* (scala), *shell* (scell); *Scham* (scama), *shame* (sceamu); *Schar* (scara), *share* (scear); *scharf* (scarf), *sharp* (scearp); *Schatten* (scato), *shade, shadow* (sceadu); *Schaub* (scoup), *sheaf* (sceaf); *Schauder=Schauer* (scûr), *shudder, shower* (sceor); *schauen* (scouvôn), *show* (sceavian); *Schaufel* (scûvalâ), *shovel* (sceofl); *Scheibe* (scîpâ), *sheave* (wanting in A.S.); *Scheide* (sceidâ), *sheath* (scaedh); *scheinen* (scînan), *shine* (scînan); *Schenkel* (scincel), *shank* (sceanca); *Scherbe* (scirpl), *sherd* (sceard); *scheu* (scioh), *shy* (sceoh); *schieben* (sciopan), *shove* (sceofan); *Schiene* (scêna), *shin* (scinu); *schier* (scioro), *sheer* (scîr); *schiessen* (sciozan), *shoot* (sccotan); *Schiff* (scif), *ship* (scip); *Schild* (scilt), *shield* (scild); *schimmern* (from sclman), *shimmer* (scimcrian); *Schock* (wanting in O.H.G.), *shoc* (wanting in A.S.); *Schote* (from L.G., but O.H.G. scôz), *sheat* (scête); *schreien* (scrian), *shriek* (wanting in A.S.)?; *schroten* (scrôtan), *shred* (screadian); *schrumpfen* (wanting in O.H.G.), *shrimp* (scrimman; prov. Engl. scrimp); *Schuh* (scuoh), *shoe* (scô); *Schulter* (scultarra), *shoulder* (sculdor); *Schurz* (fr. L.G.), *shirt* (wanting in A.S.: O.N. skirta).

B. MEDIAL: *Asche* (ascâ), *ashes* (axe=acse); *dreschen* (drescan), *thresh* (therscan); *Esche* (asc), *ash* (aesc); *Masche* (masca), *mesh* (masc).

C. FINAL: *Fisch* (fisc), *fish* (fisc, fics); *Fleisch* (fleisc), *flesh* (fläsk); *frisch* (frisc), *fresh* (fersc); *Marsch* (from L.G.), *marsh* (mersc); *Wunsch* (wunsc), *wish* (wanting, but wyscan).

According to this list there are 44 words in which German *sch* corresponds to English *sh ;* in 25 as initial, in 4 as medial, and in 5 as final. The palatal sibilant is in every case the resultant of an earlier *sk*, which is found alike in every Anglo-Saxon and Old High-German form: only for *Schacht,* *shaft* no older form is found.

26.   German *sch* = English *sk* (*sc*).

A.   INITIAL: *Schade* (scado), *scath* (sceadha)*, *Schaum* (scûm), *scum* (wanting in A.S.); *schief* (wanting in O.H.G.), *skew* (wanting in A. S.; O.N. skeifr); *schinden* (scintan), *skin* (noun scinn); *schöpfen* (scephan), *scoop* (wanting in A.S.); *Schorf* (scorf), *scurf* (scurf); *Schraube* (fr. L.G. scrûve), *screw* (wanting in A.S.); *schreien* (scrîan), *screech* (wanting in A.S.)?; *schrubben* (fr. L.G.), *scrub* (wanting in A. S.); *Schurz* (from L. G.), *skirt* (wanting in A.S.; O.N. skirta).

B.   MEDIAL: *heischen* (eiscon), *ask* (ascian); *mischen* (miscan), *mix* (miscan, by inversion).

C.   FINAL: *Wisch* (wisc), *whisk* (wanting in A.S.; O.N. visk).

German *sch* corresponds then to English *sk* in 13 words; in 10 as initial, 3 of which are not found in the Old High-German, in 2 as medial (one Eng. *ks*), and in one as final. The earlier forms, wherever found, show *sk*.

27.   German organic *sch* = English *g*.

FINAL: *Frosch* (frosc), *frog* (frox, frocga, froga).

28.   German inorganic *sch* = English *s*. This *sch*, as stated above, was originally a pure dental *s*. It will be sufficient to give the German and English words alone.

INITIAL: *Schlacht, slaughter;* (*schlagen, slay; Schlacke, slag;*) *schlafen, sleep; schleifen, slip; schlipp, slap; schlau, sly; schlecht, slight; Schlehe, sloe; schleichen, slink: schleim, slime; schleissen, slit; schlenken, slink; schliessen, slot; schlimm, slim; schlingen, sling; schlüpferig, slippery; Schlitten, sled; Schlosse, sleet; Schlummer, slumber; Schlupe, sloop?; Schmack (Geschmack), smack; Schmacke, smack; schmall, small; Schmauch, smoke; schmeissen, smite; schmelzen,* (*s*)*melt; Schmied, smith; schmiegen, smug; schmieren, smear; schmuggeln, smuggle; Schmutz, smut; Schnake, snake; schnappen, snap; schnarchen, snore; schnauben, snuff; schnauze, snout; Schnee, snow; schneiden, smithe; Schnell, snell; Schnepfe, snipe; Schwad, swath; Schwalbe, swallow; Schwan, swan; Schwären, sore?; Schwarm, swarm; Schwarte, sward; schwarz, swart; schweifen, sweep; Schwein, swine; Schweiss, sweat; schwelgen, swallow; schwellen, swell; schwer, sore?; Schwert, sword; Schwester, sister; schwimmen, swim; Schwindel, swindel; schwingen, swing; schwören, swear.*—Compare also words in *sp, st.*

This list shows 60 words in which the German inorganic *sch* corresponds to English *s* (in all of them as initial). Some of the German words (as *Schlosse, Schlupe, Schmacke, schmuggeln, Schake, Schwad* etc.) do not appear in the Old High-German, and are mostly borrowed from the Low-German. All earlier forms, wherever found, have an *s*. To these might be added 80 words in which *s* occurs before *t* or *p* (see these letters), since in them also it is prevailingly pronounced, though not written, as *sch*.

29. German inorganic *sch* = English *t*.

FINAL: *Hirsch* (O.H.G. hiruz), *hart* (heorot).

II.—DENTAL (LINGUAL) MUTES, AND FRICATIVES.

1. German *t* = English *d*.

A. INITIAL: *Tag* (tac), *day* (dæg); *taub* (toup), *deaf* (deaf); *tauchen* (tûhhan), *duck* (wanting in A.S.); *taufen* (toufan), *dip* (dippan); *Teich* (wanting in O.H.G.), *dike* (dic); *Teig* (teic), *dough* (dag); *Thal* (tal), *dale* (dæl); *Thaler* (wanting in O.H.G., but oldest form taler), *dollar* (wanting in A.S.); *That* (tât), *deed* (dêd); *Thau* (tou), *dew* (deaw); *Theil* (teil), *deal* (dæl); *theuer* (tiuri), *dear* (deore); *Thier* (tior), *deer* (deor); *Thor* (tor), *door* (duru); *-thum* (-tuom), *-dom* (-dôm); *thun* (tuon), *do* (dôn); *tief* (teof), *deep* (deope); *Tochter* (tohtar), *daughter* (dôhtor); *Tod* (tôd), *death* (deadh); *toll* (tol), *dull* (dol); *tragen* (trakan), *drag* (dragan); *Trauer* (trûrên), *drear* obs., *dreary* (dreorig)?; *Traum* (troum), *dream* (dream); *Treber* (trêber), *draff* (drof 'draffy'); *treiben* (trîpan), *drive* (drîfan); *triefen* (triofan), *drip* (dreopan); *trinken* (trinchan), *drink* (drincan); *trocken* (trucchan), *dry* (dryg); *Tropfen* (tropho), *drop* (dropa); *Tuch* (tuoh), *duck* (wanting in A.S.); *tüchtig* (tuhtic?), *doughty* (dyhtig).

B. MEDIAL: *bieten* (piohtan), *bid* (beodan); *Büttel* (putil), *beadle* (bydel); *Eitel* (îtal), *idle* (îdel); *Enterich* (anetrêcho), *drake* (wanting in A.S.)?; *fallen* (faldan), *fold* (fealdan); *Futter* (fuotar), *fodder* (fôdor); *Garten* (karto), *garden* (wanting in A.S., but geard 'yard'); *gelten* (keltan), *-geld* (geldan); *Gestüte* (stuot), *stud* (stôd); *halten* (haltan), *hold* (healdan); *hinter* (hintaro), *hinder* (hinder); *kneten* (chuêtan), *knead* (chnedan); *kritteln* (wanting in O.H.G.), *crowd* (creodan); *leiten* (leitan), *lead* (lædan); *Leiter* (hleitar), *ladder* (hlæder); *Miethe* (mieta), *meed* (mêd); *Mitte* (mittil), *middle* (middel); *Natter* (natara), *adder* (nædre); *reiten* (rîtan), *ride* (rîdan); *Reiter* (rîterâ), *riddle* (hriddel); *retten* (retjan), *rid* (hreddan); *roden* (from L.G.), *root* (wrôtan); *Ruthe* (ruota), *rod* (rôd); *Sattle* (satul), *saddle* (sadol); *Schatten* (scato), *shade, shadow* (sceadu); *Schlitten* (slito), *sled* (wanting in A.S., but from slîdan,

'slide'); *schroten* (scrôtan), *shred* (scredian); *Schulter* (scultarra), *shoulder* (sculdor); *Schwarte* (wanting in o.h.g.), *sward*, prov. Engl. 'skin' (sweard); *Seite* (sita), *side* (side); *Sinter* (sintar), *cinder* (sinder); *Spaten* (from l.g. spado), *spade* (speada); *spreiten* (spreitan), *spread* (spraedan); *treten* (trētan), *tread* (tredan); *unter* (untar), *under* (under); *warten* (wartēn), *ward* (weardian); *waten* (watan), *wade* (wadan); *watscheln* (wanting in o.h.g.), *waddle* (wādlian); *Wette* (wett), *bet* (bad); *zotteln* (wanting in o.h.g.), *toddle* (wanting in a.s.). To these should be added the preterit in *-te*, from *that*, Engl. *-d*, from *did;* and *-wärts* (wērt), *-wards* (weardes).

C. FINAL (in several cases written *d*, but pronounced *t*, see below): *alt* (alt), *old* (eald); *bald* (pald, m.h.g. balt), *-bold* (polt), *bold* (bald); *Bart* (part), *beard* (beard); *bereit* (wanting in o.h.g.), *ready* (rād); *Bett* (petti), *bed* (bedd); *Blatt* (plat), *blade* (blæd); *blind* (plint), *blind* (blind); *Blut* (pluot), *blood* (blôd); *Bort, Bord, Brett* (wanting in o.h.g.), *board* (bord); *Brand* (prant), *brand* (brand); *Braut* (prût), *bride* (bryd); *breit* (preit), *broad* (brâde); *Brot, Brod* (prôt), *bread* (bread); *Brut* (pruot), *brood* (brôd); *Draht* (drât), *thread* (thræd); *dritt* and other ordinals (o.h.g. *-t*), *third* etc. (a.s. *-d*); *Feind* (fiant), *fiend* (feond); *Feld* (fĕld, fĕlt), *field* (feld); *Freund* (friunt), *friend* (freond); *glatt* (klat), *glad* (glad); *Gold* (kold, colt), *gold* (gold); *Gott* (kot), *god* (god); *Grund* (krunt), *ground* (grund); *Gurt, gürten* (kurtan), *gird* (gyrdan); *gut* (kuot), *good* (god); *hart* (harti), *hard* (heard); *Haupt* (houpit), *head* (heafodh, o.e. haved); *Haut* (hût), *hide* (hŷd); *Hirt* (hirti), *herd* (hirde); *Hort* (hort), *hoard* (hord); *Hund* (hunt), *hound* (hund); *hundert* (hundert), *hundred* (hundred); *Kalt* (chalt), *cold* (ceald); *Land* (lant), *land* (land); *Last* (hlast), *load* (hlad; hlaest is in Engl. last); *Lied* (lit), *lid* (hlid); *Loth* (m.h.g. lôt), *lead* (lead); *Magd, Maid, Mäd-chen* (makad; m.h.g. maget, meit), *maid* (mägedh); *mild* (milti), *mild* (milde); *Mord* (mord; m.h.g. mort), *murder* (mordh); *Muth* (muot), *mood* (môd); *Noth* (nôt), *need* (nead); *roth* (rôt), *red* (read); *Saat* (sât), *seed* (sæd); *Sand* (sant), *sand* (sand); *satt* (sat), *sad* (sãd); *Schild* (scilt), *shield* (scild); *Schwert* (suĕrt), *sword* (sweord); *stät* (stâti), *steady* (stedig); *Statt* (stat), *stead* (stede); *Strand* (m.h.g. strant), *strand* (strand); *That* (tât), *deed* (dæd); *tausend* (dûsunt), *thousand* (thûsend); *Wald* (wald, but m.h.g. walt), *wold* (veald); *Wat* (wât), *wad* (wæd); *weit* (wit), *wide* (vid); *Welt* (wĕralt, worolt), *world* (veoruld); *wild* (wildi), *wild* (wild); *Wind* (wint), *wind* (wind); *Wort* (wort), *word* (word); *wund* (wunt), *wounded* (wund); *Zeit* (zit), *tide* (tid). To these should be added the preterits *lud* (hlɥot), *loaded; stand* (stuont), *stood; that* (tĕta), *did; wand* (want), *wound.*

According to the preceding list German *t* corresponds to English *d* in 31 words as initial, in 41 as medial, and in 67 as final. (Deducting words not found in the Old High-German the relation is: initial 29, medial 34, final 64.) As terminating in *t* have here been counted all words spelled in Modern German with a final *d*, but pronounced with *t*, in obedience to the phonetic law as to finals which (as in Sanskrit) requires the conversion of a sonant mute into its corre-

sponding surd. In Middle High-German, and usually in Old
High-German (except in *pald, makad, mord, wald, wildi*),
the surd is written as well as pronounced. Of course, the
results of this law ought in strictness to be held apart from
those of the great law of rotation of mutes, and the 27 words
illustrating it should be deducted from the 64 final examples,
leaving 37. Three other words, *Gold* (O.H.G. *kold, colt*), *Haupt,
Saat,* though showing a *t* in their Old High-German, have a
th in their Gothic forms. The Anglo-Saxon forms have
everywhere *d*. It should be noticed also that the *th* which
occurs in several German words above has no historical
support, all the earlier forms showing *t*.

2. German *t* = English *t*.

A. INITIAL: *Talg* (from L.G.), *tallow* (telg); *Tau* (from L.G.), *tow* (taw);
taumeln (tûmelôn), *tumble* (tumbian); *Thran* (from L.G.), *train*-oil (wanting
in A.S.); *tippen* (from L.G.), *tip* (wanting in A.S.); *Topf* (late O.H.G. toph),
top (wanting in A S.); *Torf* (from L.G.), *turf* (turf); *trampen* (from L.G),
tramp (wanting in A.S.); *trauen* (trûwen), *trow* (trûwian); *Treppe* (from
L.G.), *trap* (borrowed word; from Danish?); *treten* (trëtan), *tread* (tredan);
treu (triwi), *true* (treowe); *trippeln* (wanting in O.H.G.), *trip* (wanting in
A.S.); *Trog* (troc), *trough* (trog); *Trost* (trôst), *trust* (wanting in A.S.).

B. MEDIAL: *bersten* (from L.G.; O.H G. prëstan), *burst* (berstan); *Beute*
(from L.G.), *booty* (wanting in A.S.); *Beutel* (pûtil), *bolt*-bag (wanting in
A.S.)?; *bitter* (pitar), *bitter* (biter); *Eiter* (eitar), *atter* (âtor); *fechten* (fëhtan),
fight (feohtan); *flattern* (wanting in O.H.G., but old form fladern, flodern),
flutter (wanting in A.S.)?; *Flinte* (from Engl.; but O.H.G. flins), *flint* (flint);
flittern (wanting in O.H.G.), *flit* (wanting in A.S.); *Gerste* (kërstâ), *grist*
(grist); *Gestüte* (stuot), *stud* (stôd); *Holfter* (from huluft, and that from hulst:
Goth. hulistr), *holster* (akin to heolstor); *Hütte* (hutta), *hut* (wanting in A.S.);
Knoten (chnodo, kinoto), *knot* (cnot); *knütten* (from L.G.), *knit* (cnyttan);
Leiste (lîstâ), *list* (list); *leisten* (leistan), *last* (laestan); *Lunte* (from L.G.), *lunt*
(wanting in A.S.); *Miete* (from L.G.), *mite* (mîte); *Ostern* (ôstarûn), *Easter*
(eostra); *Otter* (ottar), *otter* (oter); *Polster* (polstar), *bolster* (bolster); *Ratte*
(rato, raddâ), *rat* (raet); *reuten* (riutan), *root* (wrôtan); *rösten* (from *Rost,*
rôst), *roast* (wanting in A.S.); *rotten* (from L.G.), *rot* (rotian); *schote* (from
L.G., but O.H.G. scôz), *sheat* (scéte); *Schwester* (suëstar), *sister* (sveostor);
sichten (from L.G.), *sift* (wanting in A.S.); *spalten, splitter* etc. (spaltan), *split*
etc. (wanting in A.S.); *Staar* (stara), *stare,* (staere, obs.); *Stab* (stap), *staff*
(stäf); *Staffel, stapfe* (staphal, stapho), *staple* (stapul), *step* (staepe); *Stahl·
(stahal), *steel* (stêl); *Stamm* (stam), *stem* (stemn); *stammeln* (stammalôn),
stammer (the noun stamor); *stampfen* (stamphôn), *stamp* (wanting in A.S.);
stark (starh), *stark* (stearc); *Stärke* (starchi), *starch* (in A.S. only steark,
'strong'); *starren* (starên) *stare* (starian); *stät* (stâte), *steady* (stedig); *Statt*

(stat), *stead* (stede); *stauen* (wanting in o.h.g.), *stow* (wanting in a.s.); *staunen* (wanting in o.h.g.), *stun* (stunian); *stecken* (stecchan), *stick* (stician); *stehen* (stantan), *stand* (standan); *stehlen* (stĕlan), *steal* (stelan); *steif* (from L.G.), *stiff* (stif); *Stein* (stein). *stone* (stân); *stellen, Stall* (stellan, stal), *stall* (steall); *Stelze* (stelzâ), *stilt* (wanting in a.s.); *sterben* (stĕrpan), *starve* (steorfan); *Stern* (sterno), *star* (steorra); *steuern* (stiuran), *steer* (steoran); *sticken* (stich, but not the verb), *stitch* (stician); *stief-* (stiuph), *step-* (steop); *Stier* (stior), *steer* (steor); *stille* (stilli), *still* (stille); *stinken* (stinchan), *stink* (stincan); *stippen* (from L.G.), *steep* (wanting in a.s.); *Stock* (stocch), *stock* (stocc); *Stoppel* (stupfulâ), *stubble* (diminut. of styb?): perhaps from Latin stipula; *Storch* (storah), *stork* (storc); *stottern* (from L.G.), *stutter* (wanting in a.s.); *Strand* (wanting in o.h.g.), *strand* (strand); *Strang* (stranc), *string* (streng); *streben* (streban), *strive* (straefan?); *strecken* (strecchan), *stretch* (streccan); *streichen* (strîhhan), *strike, stroke* (strîcan); *streifen* (wanting in o.h.g.), *stripe, strip* (strypan)?; *strenge* (strenki), *strong* (strang); *streuen* (strewjan), *strew* (streowian); *Strippe. Strüpfe* (wanting in o.h.g.), *strap* (stropp); *Strom* (strôm), *stream* (stream); *Stube* (stupâ), *stove* (stofe): from Lat.?; *Stüber* (from L.G.), *stiver* (wanting in a.s.); *Stufe* (stuofa), *step* (stepe); *Stuhl* (stuol), *stool* (stôl); *Stumpe, Stumpf* (stumph), *stump* (wanting in a.s.); *Sturm* (sturm), *storm* (storm); *Tochter* (tohtar), *daughter* (dôhtor); *Winter* (wintar), *winter* (winter); *zwitschern* (zuizerôn), *twitter* (wanting in a.s.).

C. FINAL: *acht* (ahto), *eight* (eahta); *Bast* (wanting in o.h.g.), *bast* (baest); *Boot* (from L.G.), *boat* (bât); *Brust* (prust), *breast* (brcost); *Ernst* (ĕrnust), *earnest* (eornost); *Faust* (fûst), *fist* (fŷst); *fest* (fasti), *fast* (fãst); *Fett* (wanting in o.h.g.; but fcizit = *feist*), *fat* (faet); *Fracht* (from L.G.), *freight* (wanting in a.s.); *Frost* (frost), *frost* (forst); *Furcht* (forahta), *fright* (fyrhtu); *Gast* (kast), *guest* (gest); *-gift* (kift), *gift* (gift); *Heft* (hefti), *haft* (hãft); *Herbst* (herbist), *harvest* (hãrfest); *Hut* (huota), *hat* (hãt); *Knecht* (cnĕht), *knight* (cniht); *Kluft* (chluft), *cleft* (from clifan); *Kraft* (chraft), *craft* (craft); *Last* (hlast), *last* (hlaest); *leicht* (lîhte), *light* (leoht); *Luft* (wanting in o.h.g.), *loft* (lyft, 'air'); *Lust* (lust), *lust* (lyst); *Macht* (maht), *might* (meaht); 1. *Mast* (mast), *mast* (mãst); 2. *Mast* (mast), *mast* (mãst); *Nest* (nest), *nest* (nest); *nicht* (nĕowiht), *not* (nâwiht); *oft* (ofto), *oft* (oft); *Ost* (ost?), *east* (east); *Pott* (from L.G.), *pot* (wanting in a.s.); *Rast* (rasta), *rest* (rãst); *recht* (rĕht), *right* (riht); *Rist* (wanting in o.h.g.), *wrist* (wrist); 1. *Rost* (rost), *rust* (rust); 2. *Rost*, see *rösten; sanft* (samfti), *soft* (sĕfte); *satt* (sat), *sated* (sad); *Schaft* (scaft), *shaft* (sceaft); *schlecht* (slĕht), *slight* (wanting in a.s.); *Sicht* (siht-), *sight* (siht); *Trift* (wanting in o.h.g.), *drift* (wanting in a.s.); *West* (wĕst?), *west* (west); *Wicht* (wiht), *wight* (wiht); *-wicht* (wiht), *weight* (wiht); *wüst* (wuosti), *waste* (wĕste). To these should be added the superlative termination *-st* (as in *best, best; erst, erst* etc.).

According to this list, German *t* corresponds to English *t*, as initial in 15 words (7 wanting in o.h.g.), as medial in 83 (19 wanting in o.h.g.), and as final in 45 words (8 wanting in o.h.g.). The two parent dialects, the Old High-German and the Anglo-Saxon (with one exception, *sad*), both show

a *t*, wherever the corresponding form is found, and the few Gothic forms preserved agree in the case in question with the Anglo Saxon. This preservation of *t* throughout the Germanic tongues is clearly connected with the nature of the preceding consonant. The power of *s* to preserve its kindred *t* is especially noticeable. In not less than 85 words (in 64 as medial, and in 21 as final) the *t* is preceded by *s*. It is also preceded in 13 words by *ch*, and in 8 by *f*. It is worth noticing that not less than 34, or about one quarter, of all the words in question are wanting in the Old High-German (nearly as many in the Anglo-Saxon), and are mostly borrowed from the Low-German.

3.   German *t* = English *th* (or *dh*).

  A. INITIAL: *tausend* (dûsunt), *thousand* (thûsend); *thauen* (doan), *thaw* (thavan); *Trumm* (drum), *thrum* (wanting in A.S.).
  B. MEDIAL: *Latte* (lata), *lath* (lattu); *Motte* (from L.G.), *moth* (modhdhe); 1. *Mutter* (muatar), *mother* (môdur); 2. *Mutter* (from L.G.), *mother* (wanting in A.S.); *Schaden* (scado), *scath* (sccadha); *Vater* (fatar), *father* (fäder); *Wetter* (wëtar), *weather* (weder).
  C. FINAL: *Bad* (*pad;* M.H.G. bat), *bath* (baedh); *Eid* (eid; M.H.G. eit), *oath* (âdh); *fort* (wanting in O.H.G.), *forth* (fordh); *Geburt* (ka-purt), *birth* (beordh, byrd, gebyrdu); *Glied* (gilit), *lith* (lidh); *Gurt* (only kurtan), *girth* (gyrd); *Herd* (hërt), *hearth* (heordh); *Kleid* (wanting in O.H.G.; M.H.G. kleit), *cloth* (clâdh); *Leid* (leid), *loath* (lâdh); *lind* (lindi), *lithe* (lîdhe); *Mahd* (mâd, M.H.G. mât), *math* (maedh); *Monat* (mânôd), *month* (mônâdh); *Mund* (munt, pl. mundâ), *mouth* (mûdh); *Nord* (nord, M.H.G. nort), *north* (nordh); *Pfad* (phad, M.H.G. phat), *path* (pâdh); *Schmied* (smid, M.H.G. smit), *smith* (smidh); *Schwad* (from L.G.), *swath* (swadhu); *seit* (sîd), *sith* (sîdh); *Süd* (sund), *south* (sûdh); *Tod* (tôd, M.H.G. tôt), *death* (deadh); *Werth* (wërd), *worth* (weordh). To these should be added the verb-forms *schnite* etc., akin with *snithe*, and *sott* etc., *seethed*.

Accordingly, German *t* corresponds to English *th* (*dh*) as initial in 3 words, as medial in 7 words (2 wanting in O.H.G.), and as final in 23 words (2 wanting in O.H.G.). English *th* (*dh*) is represented in Anglo-Saxon as initial by *th*, as medial by *d* 3 times, *dh* 2, or *t* once, and as final by *dh* everywhere, except in *gyrd;* but the use of *th* or *dh* is of an uncertain value. The great majority of German cases of final *t* are, by the law as to pronunciation of a final sonant mute of a stem, explained above (under II. 1).

The discrepancy between English and Anglo-Saxon in regard to final *th, dh* is noteworthy.

The relation between the two older languages in regard to the medial is different from that of the initial and final dental. In three words the Anglo-Saxon has *d* and the Old High-German the expected *t*. Here, then, the English shows an anomalous change. It should be noticed, however, that the Old Norse has *môdhir, fadhir, wedhr*, which agree better phonetically with the Latin *mater, pater* than the Anglo-Saxon *môdur, fäder, weder.* Only two of the remaining four words are found in Anglo-Saxon and Old High-German. In one the relation is there *t = t,* and in the other *dh = d.* In only two words (*modhdhe, sceadha*) is the Anglo-Saxon lingual aspirated in the middle of the word.

4 German *t* not represented in English pronunciation.

A. MEDIAL: *Borste* (purst), *bristle* (byrst, bristl); *Distel* (distil), *thistle* (thistel); *Drostel* (wanting in O.H.G.; M.G. trostel), *thrustle* (throsle for throstle?); *Mistel* (mistil), *mistletoe* (mistellâ).

B. FINAL: *Mond* (mâno, M.H.G. mânôt), *moon* (môna).

In all these words, except *Mond,* *t* is original. In *Mond,* *d* is a later derivative ending (M.H.G. -*ôt*).

5. German *d =* English *th (dh).*

A. INITIAL: *da (r)* (dâr), *there* (thaer); *Dach* (dah), *thatch* (thäc); *Dank* (danch), *thanks* (thanc); *dann* (danna), *then* (thanne); *dass* (daz), *that* (thät); *Daum* (dûmo), *thumb* (thûma); *Degen* (dëkan), *thane* (thegen); *dein* (dîn), *thine* (thîn); *denken* (denchan), *think* (thencean); *der, die, das* (dër, diu, daz), *the, that* (se, seo, thät); *Deube* (diuba), *theft* (theofdh); *dicht, dick* (dicchi), *thick* (thicce); *Dieb* (diup), *thief* (theof); *Diele* (dilo), *thill* (thile); *dies* (diz), *this* (thes); *Ding* (dinc), *thing* (thing); *Distel* (distil), *thistle* (thistel); *doch* (doh), *though* (theah); *Donner* (Donar), *thunder* (thunar); *Dorf* (dorf), *thorp* (thorp); *Dorn* (dorn), *thorn* (thorn); *Draht* (drât), *thread* (thraed); *drehen* (drâjan), *throw* (thrûwan); *drillen* (from L.G.), *thrill* (thyrlian); *drei* etc. (driâ), *three* etc. (thrî); *dreschen* (drëscan), *thresh* (threscan); *dringen* (dringan), *throng* (thringan); *drohen* (drouwan), *throe* (threaw, from threowan); *Drossel* (from L.G., but O.H G. droscelâ), *thrustle* (throsle), *thrush* (thrysce); *Drossel* (drosa), *throttle, throat* (throte); *du* (dû), *thou* (thû), *dulden* (dultan), *thole* (tholian); *dünn* (dunni), *thin* (thynne); *Durst* (durst), *thirst* (thurst).

B. MEDIAL: *Adel* (adal), *ethel,* obsol. 'noble' (edhel); *ander* (andar), *other* (ôdher); *beide* (pêdê), *both* (bâ; O. Saxon bêthia); *Bruder* (pruodar), *brother* (brôdhor); *Bude* (wanting in O.H.G.), *booth* (wanting in A.S.); *Bürde*

(purdî), *burthen* (byrdhen); *Erde* (ĕrda), *earth* (eordhe); *Faden* (fadum), *fathom* (fădhm); *Feder* (fĕdara), *feather* (fedher); *förder, fürder* (furdir), *farther, further* (furdhôr); *Fuder* (fuoder), *fother* (fôther); *Heide* (heida), *heath* (hădh); *Leder* (lĕdar), *leather* (ledher); *linde* (lindi), *lithe* (lîdhe); *nieden* (nidana), *nieder* (nidari), *beneath* (neodhan), *nether* (nidher); *Scheide* (sceidâ), *sheath* (scaedh); *schmieden, schmiede* (smidôn), obsol. *smith, smithy* (smidhian); *schneiden* (snîdan), *snithe,* 'cutting' (snîdhan); *sieden* (siodan), *seethe* (seodhan); *weder* (huĕdar), *whether* (hwădher); *Weide, Wiede* (wîdâ), *withe* (widhie); *werden* (wĕrdan), *worth,* 'be,' as in 'woe worth the day' (weordhan); *Widder* (widar), *wether* (wedher); *wider* (widar), *with* (widher).

C. FINAL. To these should be added the 15 words in final written *d* pronounced as *t* (above II. 3), which resume in inflection the sonant.

Here German *d* corresponds to English *th(dh)* as initial in 35 words (one wanting in O.H.G.), as medial in 39 words (3 wanting in O.H.G.), and as final in 15 words. In the Old High-German, *d* is found everywhere, except in *gilit, hĕrt* (p. 133), and in the Anglo-Saxon is found *th, dh.* In regard to the use of the surd or sonant aspirate there is often a discrepancy between English and Anglo-Saxon; the nature of the latter, however, is uncertain.

6. German *d =* English *d.*

A. INITIAL: *dahlen* (wanting in O.H.G.), *dally* (wanting in A.S., but dol, 'foolish'); *Dam-* (tâmo), *doe* (dâ); *Damm* (M.H.G. tam), *dam* (wanting in A.S.); *Dämmer* (dĕmar), *dim* light (dim; but Old Sax. thimm); *Dampf* (damph), *damp* (wanting in A.S.); *Daune, Dune* (fr. L.G.), *down* (wanting in A.S.); *decken* (decchan), *deck* (theccan); *Deich* (from L.G.), *dike* (dîk); *Diele* (dilo), *deal* (wanting in A.S.; L.G. dele; O.N. thili); *drillen* (from L.G.), *drill* (thyrlian); *Drohne* (from L.G.), *drone* (drân); *drollig* (from L.G.), *droll* (wanting in A.S.)?; *ducken* (from tûhhan), *duck* (wanting in A.S.); *Düne* (from L.G.), *dune, down* (dûn); *Dung* (tunga), *dung* (dung); *dürr* (durri), *dry* (dryg: thyrr is the nearest kin to *dürr*); *Dusel* (from L.G.), *dizziness* (dysig-ness); *Dust* (from L.G.), *dust* (dust).

B. MEDIAL: *Adel* (adal), *adeling* (ædhel-ing); *binden* (pintan), *bind* (bindan); *Bürde* (purdi), *burden* (byrdhen); *Ende* (enti), *end* (ende); *Fehde* (fĕhida), *feud* (fædhu); *finden* (findan), *find* (findan; Goth. finthan); *Fuder* (fuoder), *fodder* (fôdher); *Gilde* (from L.G.), *guild* (gild); *Hede* (from L.G. herde), *herd* (hirde); *Herde* (hĕrta), *herd* (heord); *Holder* (holantar, holter), *elder* (ellarn)?; *hudeln* (wanting in O.H.G.), *huddle* (wanting in A.S.); *Hürde* (hurd), *hurdle* (hyrdel); *laden* (hlatan), *load* (hladan); *Lende* (lenti), *lends* (lend); *Linde* (lintâ), *linden* (lind); *Mädel* (M.H.G. magetlîn), *maiden* (măgden, from mægedh); *Nadel* (nâdila), *needle* (nædl; Goth. nêthla); *Plunder* (wanting in O.H.G.), *plunder* (wanting in A.S.); *reden* (rediôn), *read* (redan; O. Sax. redhiôn); *Rhede* (wanting in O.H.G.), *road* (râd? or akin to E. ready); *Rinde* (rinta), *rind* (rind); *Ruder* (ruodar), *rudder* (rôdher); *Schauder* (want-

ing in o.h.g.), *shudder* (wanting in a.s.); *Schwindel* (suintil), *swindle* (wanting in a.s.); *senden* (scntan), *send* (sendan); *sonder* (suntar), *sunder* (from sundor=*sonder*); *spenden* (spěntôn). *spend* (spendan); *Spindel* (spinnula), *spindle* (spindel, spinl); *wandern* (wanting in o.h.g.; but wantalôn=*wandeln*). *wander* (wandrian); *winden* (wintan), *wind* (windan); *Wunde* (wunt), *wound* (wund); *Wunder* (wuntar), *wonder* (wundor); *Zünden* (zuntan), *tind* (tendan obs.); *Zunder* (zuntrâ), *tinder* (tyndre). To these should be added the 26 nouns and adjectives given before, under II. 1, terminating in *d*, pronounced as *t*, which in their inflection resume the sonant *d*.

According to the preceding list, German *d* agrees with English *d* as initial in 17 words, as medial in 59 words, and as final in 26 words. Deducting words not found in the Old High-German, the relation is: initial 9, medial 53. The Anglo-Saxon forms have all *d*, with seven exceptions, which have the aspirated dental (2 initial *th*, 5 medial *dh*). The expected Old High-German *t* is found, in the prevailing number of words, in 4 as initial, and in 36 as medial. In its remaining 20 words, *d* is found, in 5 as initial, and in 15 as medial. Deducting the 6 Anglo-Saxon words with an aspirated dental, which warrants the Old High-German *d*, there remain 14 Old High-German forms which in regard to their dental sounds agree with the Anglo-Saxon forms. Nine of the latter, however, are represented in other dialects on a level with the Anglo-Saxon (Gothic, Old Saxon, etc.) by an aspirated dental. The result would seem to be, therefore, that while the English *d* is (with, perhaps, some fifteen exceptions) the regular representative of the original Germanic *d*, the German *d* is (with as many exceptions) the irregular representative of the same letter, instead of the expected *t* (which is found in 40 instances in the Old High-German). It should be noticed that here, as in the case where German *t* corresponds to English *t*, the borrowing from Low-German is quite frequent.

7. German *d* = English *t*.

A. Initial: *dicht* (from dîhan), *tight* (tyht); *Dienstag* (from L. Sax.; o.h.g. Ziestac), *Tuesday* (Tiwesdæg); *drücken* (drucchan), *trig* (thryccan).

B. Medial: *Boden* (podam), *bottom* (botm); *Fladen* (fiado), *flat*-cake (wanting in a.s.); *federn*, in comp's (flědarôn), *flutter* (wanting in a.s.); *roden* (from l.g.), *root* (wrôtan).

The anomalous relation of these seven words is hard to account for, especially as the Gothic form is, for the most part, wanting. The English *t* seems in two words, *tight*, and *trig*, a deaspiration of an earlier *th* (Anglo-Saxon *thryccan*, Old Norse *thêttr*), and the German *d* is in two words (*Dienstag* and *roden*) borrowed. Of the remaining three words, two are wanting in Anglo-Saxon (all in Gothic).

8. German *d* not represented in English.

MEDIAL: *Luder* (M.H.G. luoder), *lure* (prob'ly through Fr.)?; *oder* (odar), *or*, contr'n of *other* (âdher); *Sünde* (suntĕa), *sin* (synn, O. Sax. sundia, prob'ly from different though kindred sources : synn = Goth. sunja?).

9. English *d* not represented in German.

MEDIAL: *thunder* (thunor, thunder), *Donner* (donar); *yond, yond-er* (geond), *jen-er* (gĕnêr; Goth. jains).

In these two words *d* is in English (and Anglo-Saxon) an extension of the primitive form. The real correspondent to *jen* is *yon*.

10. English *th* not represented in German.

FINAL: *breadth* (O. Engl. bredethe), *Breite* (preiti); *depth* (Goth. diupitha), *Tiefe* (tiufî); *tooth* (tôdh), *Zahn* (zand); *width* (wanting in A.S.), *weite* (wîtî).

In *breadth*, *depth*, and *width* the final *th* is the remainder of an old ending, seen in the Gothic *diupitha*, which is lost in German. In *tooth* it is the primitive *t*, regularly represented in Anglo-Saxon and the Old High-German.

German *s*. The dental sibilant in German is of two kinds: one is the unaltered Indo-European *s*; the other, a representative of the oldest Germanic *t* (changed in the Old High-German to *z* instead of an aspirated dental, and in the New-German to *s*). The former, agreeing everywhere (except in a few sporadic cases given below) with the English *s*, need not be enumerated separately, especially as the list is very long (comprising a trifle over 200 cases). The latter, on the contrary, will be given in full below.

11. German *s* (original *t*) = English *t*.

A. MEDIAL: *beissen* (pīzan), *bite* (bītan); *besser* (peziro), *better* (betera); *Busse* (puoza), *boot* (bôt); *emsig* (emizico), *empty* (ămtig); *essen* (ĕzan), *eat* (etan); *Fessel* (fezil), *fetter* (feter); *fliessen* (fliozan), *float* (fleotan); *Gasse* (gazâ), *gate* (gat); *grüssen* (kruozan), *greet* (grêtan); *heissen* (heizan), *hight* (hâtan); *lassen* (lâzan), *let* (lætan); *messen* (mĕzan), *mete* (metan); *Nessel* (nezila), *nettle* (netele); *rasseln* (wanting in o.h.g.), *rattle* (wanting in a s.); *reissen* (rīzan), *write* (wrītan); *schiessen* (sciozan), *shoot* (sceotan); *schleissen* (slīzan), *slit* (slītan); *schliessen*, see *schloss;* *Schlosse* (m.h.g. slôz), *sleet* (sliht); *schmeissen* (smīzan), *smite* (smītan); *spleissen* (wanting in o.h.g.; m.g. splīzen), *split* (wanting in a.s.); *spriessen* (spriuzan), *sprout* (spreotan); *Wasser* (wazar), *water* (wăter); *wissen* (wizan), *wit* (witan).

B. FINAL: *aus* (ûz), *out* (ût); *Eiss* (eiz), *atter* (ător); *es* (iz), *it* (hit); *Fass* (faz), *vat* (făt); *Fuss* (fuoz), *foot* (fôt); *Geiss* (keiz), *goat* (gât); *Griess* (krioz), *grit, groats* (greot); *gross* (krôz), *great* (great); *Hass* (haz), *hate* (hete); *heiss* (heiz), *hot* (hât); *lass* (laz), *late* (lăt); *Loos* (blôz), *lot* (hlôt); *Niss* (niz), *nit* (hnitu); *Nuss* (hnuz), *nut* (hnyt); *Sass(e)* (sâzo), *setter* (from settan); *Schweiss* (sueiz), *sweat* (svât); *Spiess* (spiz), *spit* (spitu); *süss* (suozi), *sweet* (swête); *was* (hwaz), *what* (hwăt); *weiss* (huīz), *white* (hwīt): to which should be added the preterit *sass, sat.*

German *s*, then, corresponds to English *t* as medial in 23 words (3 wanting in o.h.g.), and as final in 21 words. The Anglo-Saxon forms have without exception *t*, and the Old High-German *z*, the permuted form of *t*, instead of the normal dental aspirate.

12. German *s* (original *t*) = English *d*.

FINAL: *Kloss* (chlôz), *clod* (clot).

13. German *s* (original *t*) = English *z*.

FINAL: *lass, lässig* (laz, m.h.g. lezzic), *lazy* (wanting in a.s.; O. Eng. lasie).

14. German original *s* corresponds to English *s(z)* in somewhat more than 200 instances. Only in the following cases is there a discrepancy:

Eisen (īsarn), *iron* (īsern, īren); *Hase* (haso), *hare* (hara); *sie* (siu), *she* (seo); *sollen* (scolan; that is, *s* here — *sc*), *shall* (scal, scealan); [doubtfully in *Bürste, brush* (fr. Fr.?), *giessen gush*]. In three words (see p. 149, No. 3) it has been changed to *r* while the English *s* has been retained.

15. German *z* = English *t*.

A. INITIAL: *Zagel* (zagal), *tail* (taegel); *zäh* (zâhi), *tough* (tôh); *Zahl* (zala), *tale* (talu); *zahm* (zam), *tame* (tam); *Zahn* (zan, zand), *tooth* (todh);

Zange (zanka), *tongs* (tangc); *Zapfen* (zapho), *tap* (täppa); *Zarge* (zarga), *target* (targe); *Zaun* (zûn), *town* (tûn); *Zecke* (wanting in o.h.g.), *tick* (wanting in a.s.); *Zehe* (zêha), *toe* (tâh); *zehn* (zêhan), *ten* (ten); *Zeichen* (zeibhan), *token* (tâcen); *Zeit* (zît), *tide* (tîd); *Zieche = Zecke*; *-zig*, in *zwanzig* etc. (-zuc), *-ty* (-tig); *ziehen* (ziohân), *tug* (teohan); *Ziesel-maus* (zisemûs), *tit-mouse* (sisemûs?)?; *Zimmer* (zimpar), *timber* (timber); *Zinn* (zin), *tin* (tin); *Zopf* (zoph), *top* (top); *zotteln* (wanting in o.h.g.), *toddle* (wanting in a.s.); *zu* (zuo), *to* (tô); *Zünden* (zuntan), *tind* (tendan obs.); *Zunder* (zuntrâ), *tinder* (tyndre); *Zunge* (zungâ), *tongue* (tunge); *zwanzig* (zweinzuc), *twenty* (twêntig); *Zwehle* (duahilan), *towel* (wanting in a.s.); *zwei, zwie-, zwi-,* etc. (zwei), *two* (twâ); *zwicken* (zuicchan), *tweak* (twiccian); *zwingen* (duinkan), *twinge* (O. Sax. thuingan)?; *zwinken* (zuincho-), *twinkle* (twinclian); *zwirlen* (from dweran), *twirl* (only thwiril); *zwirnen* (from zuir), *twist* (from twi); *zwischen,* from zwei, *between* from be-twain; *zwitschern* (zuizeron), *twitter* (wanting in a.s.); *zwölf,* from *zwei, twelve.*

B. MEDIAL: *beizen* (peizan), *bite* (bîtan); *grunzen* (grunzen), *grunt* (grunan); *Grütze* (kruzi), *grit* (grytta); *heizen* (heizan), *heat* (hâtan); *Hitze* (hizêa), *heat* (hâte); *Ratze,* see *Ratz*; *schmelzen* (smêlzan), *smelt, melt* (meltan); *schmerzen* (smerzan), *smart* (smeortan); *Schnauze* (from l.g.), *snout, snite* (snite); *sitzen* (sizzan), *sit* (sittan); *spritzen* (wanting in o.h.g.), *spirt, spurt, sprit* (sprytan, 'sprout'); *spützen, speuzen* (wanting in o.h.g.), *spit* (spittan); *Stelze* (stelzia), *stilt* (wanting in a.s.); *Warze* (warza), *wart* (weart); *Weizen* (hueizi), *wheat* (hwâte); *wetzen* (huazzan), *whet* (hwettan).

C. FINAL: *Bolz* (polz), *bolt* (bolt); *Filz* (fîlz), *felt* (felt); *Herz* (hêrzâ), *heart* (heorte); *Holz* (holz), *holt* (holt obs.); *Lenz* (lenzo), *lent* (lengten); *Malz* (malz), *malt* (mealt); *Milz* (milzi), *milt* (milte); *Netz* (nezi), *net* (net); *Ratz* (rato), *rat* (raet); *Salz* (salz), *salt* (sealt); *Schurz* (from l.g.), *shirt* (wanting in a.s.); *schwarz* (suarz), *swart* (sweart); *Wurz* (wurz), *wort* (vyrt).

German *z*, then, corresponds to English *t* as initial in 36 words (2 wanting in o.h.g.), as medial in 15 (3 wanting in o.h.g.), and as final in 13 (1 wanting in o.h.g.). The Anglo-Saxon forms have everywhere *t* except in *thwiril*, and in the doubtful *sisemûs*. The Old High-German forms have the expected *z* everywhere except in *dweran* (which agrees with the Anglo-Saxon *thwiril*), *duinkan* (which agrees with the Old Saxon *thuingan*), *duahilan* (wanting in the older dialects, but from *duahan* = Gothic *thvahan*, Anglo-Saxon *thweahan*), and *rato*, in which the original *t* has been persistent.

16. German *z* = English *th.*

A. INITIAL: *Zwerch* (duêrah), *thwart* (thweorh).
B. FINAL: *schwarz* (suarz), *swarth* (sweart).

Here, as seen, German has made an irregular change in *Zwerch*, but English in *swarth.*

17. German *z* = English *s*.

A. INITIAL: *Zeischen* (wanting in O.H.G.), *siskin* (wanting in A.S. and kindred tongues); *zimpfern* (wanting in O.H.G.), *simper* (wanting in A.S. and kindred tongues).

B. MEDIAL: *letzt* (lezist), *last* (contraction of E. latest).

The first two words are of entirely doubtful connections; and in the last it is rather the medial *t* than *s* which has been dropped.

18. German *z* = English *d*.

A. INITIAL: *Zwerg* (tuërc), *dwarf* (dweorg).

B. MEDIAL: *gelzen* (from galza), *geld* (only gylte, 'castrated').

C. FINAL: *klotz* (chlôz), *clod* (clot).

In the first word, German has pushed the older dental (*t*) one step further. In the second, English *d* seems irregular, and is, perhaps, borrowed from the Scandinavian (O.N. *gelda*); and in the last, English has changed *t* to *d*.

19. German *z* = English *ch* (*tch*).

A. INITIAL: *zirken* (also *tschirpen*; wanting in O.H.G., and probably from Engl.), *chirp* (wanting in A.S.).

B. MEDIAL: *kratzen* (chrâzôn), *scratch*, O. Engl. *cratch* (wanting in A.S., probably imported).

20. German *z* = English *tz*.

MEDIAL: *walzen* (walzan), *waltz* (wanting in A.S.; probably from Germ.).

III.—LABIAL MUTES, AND FRICATIVES.

1. German *p* = English *p*.

A. INITIAL: *Plunder* (wanting in O.H.G.), *plunder* (wanting in A.S.); *Pocke* (wanting in O.H.G.), *pock* (pocc); *Pökel* (wanting in O.H.G.), *pickle* (wanting in A.S.)?; *Pott* (from L.G.), *pot* (wanting in A.S.); *Pranger* (wanting in O.H.G.), *prong* (wanting in A.S.).

B. MEDIAL: *Espe* (aspa), *asp* (æspe); *foppen* (from L.G.), *fop* (wanting in A.S.); *Gimpel* (from M.H.G. gumpen, 'jump'), *jump* (wanting in A.S.); *Haspe, Hespe* (wanting in O.H.G.), *hasp* (häsp); *Klumpen* (wanting in O.H.G.), *clump* (wanting in A.S.); *knappen, Knapsack* (wanting in O.H.G.), *knap, knapsack* (wanting in A.S.); *Krampe* (chramphâ), *cramp*-iron (wanting in A.S., but see next); *Krimpen* (chrimphan), *crimp* (crimpan); *Krüppel* (wanting in O.H.G.), *cripple* (crypel); *Lappen* (lappa), *lap* (lappa); *Lippe* (from

L.G.), *lip* (lippa); *lispeln* (lispan), *lisp* (wlisp, 'lisping'); *Raspel* (wanting in O.H.G., but from raspôn), *rasp* (wanting in A.S.); *Schlupe* (from L.G.), *sloop* (wanting in A.S.); *spähen* (spëhôn), *spy* (wanting in A.S., and prob'ly through Fr.)?; *Spange* (spangâ), *spang*, obsol. (spange); *Spanne* (spanna), *span* (spann); *sparen* (sparôn), *spare* (sparian); *Spaten* (from L.G.), *spade* (speada); *Speer*, see *sper*; *Speiche* (speichâ), *spoke* (spâce); *speien* (spïwan), *spew* (spïwan); *spenden* (spentôn), *spend* (spendan); *Sperber* (sparwari), *sparrow* (spearwa); *Sper* (spër), *spear* (spere); *Spiere* (from L.G.), *spire* (wanting in A.S.)?; *Spiess* (spiz), *spit* (spitu); *spinnen* (spinnan), *spin* (spinnan); *spleissen* (wanting in O.H.G.), *split* (wanting in A.S.); *Sporn* (sporo), *spur* (spora); *sprechen* (sprëhhan), *speak* (sprecan, specan); *spreiten* (spreitan), *spread* (sprædan); *sprengen*, from *springen* (sprincan), *spring* (springan); *spritzen* (wanting in O.H.G.), *spirt*, *spurt*, *sprit* (sprytan, 'sprout'); *spriessen* (spriuzan), *sprout* (spreotan); *Spule* (spuolo), *spool* (wanting in A.S.); *Spur* (spor), *spoor* (wanting in A.S.); *sputen* (spuotôn), *speed* (spêdan); *spützen*, *spewzen* (wanting in O.H.G.), *spit* (spittan); *Stippe* (from L.G.), *steep* (wanting in A.S.); *Strippe* (wanting in O.H.G.), *strap* (stropp); *Stumpe* (wanting in O.H.G.), *stump* (wanting in A.S.); *trippeln* (wanting in O.H.G.), *trip* (wanting in A.S.); *Wespe* (wafsa), *wasp* (wäsp); *wispeln* (huisbalôn), *whisper* (hwisprian); *zirpen* (wanting in O.H.G.), *chirp* (wanting in A.S.).

C. FINAL: only in a few imperat. interjections, like *schnapp*, *snap*.

German *p* corresponds, then, to English *p* as initial in 5 words (all wanting in O.H.G.), and as medial in 46 words (19 of which are wanting in O.H.G.). As we have seen, nearly one-half of the German words are wanting in the Old High-German, and several of those found are clearly borrowed from the Low-German. The Anglo-Saxon forms, wherever found, have without exception *p*. The Old High-German forms have likewise *p*, except in *chramphâ, chrimphan, wafsa, huisbalôn.*

2.   German *p* = English *f.*

A.   MEDIAL: *Klippe* (from L.G.), *cliff* (clif); *schnuppen* (from L G.), *snuff* (wanting in A.S.); *laubte, left; raubte, reft.*

B.   FINAL (German written *b*, prevailingly pronounced *p*): *ab* (aba, apa), *of* (of); *Alp* (alp), *elf* (älf); *Dieb* (diup), *thief* (theof); *grob* (gerob; M.H.G. grop), *gruff* (wanting in A.S.); *halb* (halp), *half* (healf); *Kalb* (chalp), *calf* (cealf); *Laib* (hleip), *loaf* (hlâf); *Leib* (lïp), *life* (lîf); *lieb* (liup), *lief* (leof); *Schaub* (scoup), *shief* (sceaf); *selb* (sëlp), *self* (self); *Stab* (stap), *staff* (stäf); *taub* (toup), *deaf* (deaf); *Weib* (wîp), *wife* (wîf).

German *p* corresponds, then, to English *f* in 18 words. In all, except *schnuppen, Klippe* (both from Low-German), and the two preterits, *laubte, raubte*, it is final; everywhere, save in

Alp, it is written *b;* and the relation is due, accordingly, to the law as to surd pronunciation of a final mute. The Anglo-Saxon forms all have *f;* but they are often derived (as shown by the Anglo-Saxon or Gothic) from forms having *b* instead of *f*.

3.   German *p* = English *b*.

A.   INITIAL: *Polster* (polstar), *bolster* (bolster); *Pracht* (praht), *bright* (briht).

B.   MEDIAL: *Krippe* (chrippa), *crib* (cryb); *Rippe* (rippi), *rib* (rib); *rumpeln* (wanting in O.H.G.), *rumble* (wanting in A.S.); *Stoppel* (from L.G.; O.H.G. stupfulâ), *stubble* (diminut. of stybb?: perhaps from Lat. stipula).

The older forms (wanting for two words) agree here in regard to labials with the modern ones.

4.   German *p* = English *v*.

A.   INITIAL: *Rappe* (rabbo, 'raven'), *raven*-colored horse (hräfen). Here may be counted also the verb-forms: *glaubte, believed; lebte, lived; liebte, loved; schabte, shaved; strebte, strove*.

B.   FINAL: *Lieb* = (liubî; *lieb*, liup, Goth. liubs), *love* (lufu); *Sieb* (sib, sip), *sieve* (sife); *sieb-zehn* etc., *seven-teen*. With these should be counted the verb-forms: *gab, gave; grub*, akin to *grave; hob, hub, heaved; klob, cleaved; schob, shoved; starb, starved; trieb, drove; wob, wove;* and some other words which, when abreviated, terminate in *b*.

Here German *p* corresponds to English *v* as initial in 6 words, and as final in 11 words: in the latter case everywhere, except in *Rappe*, by the law as to pronunciation of a final mute. Only *heben* is in the Old High-German *heffan*. The Anglo-Saxon labial is everywhere *f*, except in *hebban* (*heave*); but the Gothic, where found, has *b*. The German labial is therefore in the main accordant with the Old High-German labial; but the English differs everywhere from the Anglo-Saxon (which, again, does not agree with the Gothic).

5.   German *p* = English written, but unpronounced, *b*.

Wampe (wampa), *womb* (wamb).

6.   English *p* not represented in German.

Empty (ämtig, ämettig), *emsig* (meizicô); *head* (heafod, O.E. haved); *crump* (crump), *krumm* (chrump); *whimper* (wanting in A.S.), *wimmern* (wanting in O.H.G.; older form wemmern, and never *p*, except in Engl.)?

7. German *b* = English *b*.

A. INITIAL: *baar* (par), *bare* (bar); *Bach* (pach), *beck* (becc); *backen* (pachan), *bake* (bacan); *Bad* (pad), *bath* (baedh); *Bake* (pouhan), *beacon* (beacen); *bald* (pald), *bold* (bald); *Balg* (palc), *bellow, belly* (baelg); *Balken* (palcho), *balk* (balc); *Bank* (panch), *bank* (banc); *Bann* (pan), *ban* (geban); *Bär* (pēro), *bear* (bera); *büren* (peran), *bear* (beran); *Barme, Bärme* (from L.G.), *barm* (beorma); *Bart* (part), *beard* (beard); *Bast* (wanting in O.H.G.), *bast* (baest); *Bauer* (pûr), *boor, bower* (bûr); *Baum* (poum), *beam* (beam); *baxen* (from L.G.; M.H.G. puxen), *box* (wanting in A.S.); *bei* (pî), *by* (bi); *beide* (pêdê), *both* (bâ); *Beil* (pihil), *bill* (bil); *Bein* (pein), *bone* (bân); *beissen* (pîzan), *bite* (bîtan); *bergen, Her-berge* (pērkan, heri-pērgôn), *bury, harbor* (beorgan, here-berga); *Berg* (perac), *berg* (beorh); *bersten* (from L.G.; O.H.G. prēstan), *burst* (berstan); *Besen* (pēsamo), *besom* (besma); *besser, best* (peziro, pezist), *better, best* (betera, betest); *Bett* (petti), *bed* (bedd); *biegen, beugen* (piokan), *bow* (bugan); *Beule* (pûli), *boil* (wanting in A.S.); *Beute* (from L.G.), *booty* (wanting in A.S.); *Beutel* (pûtil), *bolt-bag* (wanting in A.S.)?; *Biene* (pini, plur.), *bee* (beo); *bieten* (piohtan), *bid* (beodan); *binden* (pintan), *bind* (bindan); *Birke* (piricha), *birch* (beorc); *bitter* (pitar), *bitter* (biter); *blähen* (plâjan), *blow* (bläwan); *blasen* (plâsan), *blast* (from blaesan); *Blatt* (plat), *blade* (blaed); *blau* (plâo), *blue* (bleo); *bleich* (pleih), *bleak* (blâc); *blind* (plint), *blind* (blind); *blinken* (wanting in O.H.G., but planch, 'blanc'), *blink* (blican?); *Block* (piloh), *block* (wanting in A.S.); *blühen* (pluojan), *blow* (blôwan); *Blume* (pluomo), *bloom* (O. SAX. blômo); *Blut* (pluot), *blood* (blôd); *Bock* (pocch), *buck* (bucca); *Boden* (podam), *bottom* (botm); *Bogen* (poko), *bow* (boga); *Bohle* (wanting in O.H.G.), *bole* (wanting in A.S.); *Bohne* (pôna), *bean* (bean); *bohren* (porôn), *bore* (borian); *-bold* (polt), *-hold* (bald); *Bollwerk* (wanting in O.H.G.), *bulwark* (wanting in A.S.); *Bolz* (polz), *bolt* (bolt); *Boot* (from L.G.), *boat* (bât); *Bord, Brett* (wanting in O.H.G.), *board* (bord); *borgen* (poraken), *borrow* (borgian); *Borke* (from L.G.), *bark* (wanting in A.S.); *Born* (from L.G.), *bourn* (burna); *Borste* (purst), *bristle* (byrst, bristl); *Bram* (from L.G.), *broom, bramble* (brôm, brêmbel); *Bräme* (wanting in O.H.G.), *brim* (bremme); *Brand* (prant), *brand* (brand); *brauchen* (prûhhan), *brook* (brûcan); *Braue, Braune* (prâwa), *brow* (brûva); *brauen* (priuwan), *brew* (breovan); *braun* (prûn), *brown* (brûn); *Brausche* (from L.G.), *bruise* (from brŷsan); *Braut* (prût), *bride* (brŷd); *brechen* (prëhhan), *break* (brecan); *breit* (preit), *broad* (brâde); *brennen* (prennan), *burn* (beornan); *Brett*, see *Bord*; *bringen* (prinkan), *bring* (bringan); *Brod* (prôt), *bread* (bread); *Bruch* (bruoch), *brook* (brôc); *Brycke* (pruccâ), *bridge* (brycg); *Bruder* (pruodar), *brother* (brôdhor); *Brust* (prust), *breast* (breost); *Brut* (pruot), *brood* (brôd); *Buch* (puoh), *book* (bôc); *Buche* (puohha), *beach* (bôc); *Bude* (wanting in O.H.G.), *booth* (wanting in A.S.); *Bulle* (from L.G.), *bull* (wanting in A.S.); *Bürde* (purdî), *burden* (hyrdhen); *Burg* (puruc), *burg* (byrig); *Busen* (puosum), *bosom* (bôsum); *Busse* (punza), *boot* (bôt); *Büttel* (putil), *beadle* (bydel).

B. MEDIAL: *Ebbe* (from L.G.), *ebb* (ebba); *Geburt* (ka-purt), *birth* (beordh); *Giebel* (kipil), *gable* (wanting in A.S.; *gable* perhaps through Fr.); *graben, grübeln?* (krapan, krupilon), *grub* (grafan, pret. grub); *reiben* (rîpan), *rub* (wanting in A.S.); *schrubben* (from L.G.), *scrub* (wanting in A.S.); *Webe* (weppi), *web* (webb).

Here, then, German *b* corresponds to English *b* as initial in 91 words (16 wanting in O.H.G.), and as final in 7 words (2 wanting in O.H.G.). The Anglo-Saxon forms have everywhere *b*, and the Old High-German, with one exception (*bruoch*), the expected *p*.

8. German *b* = English *f*.

A. MEDIAL: in 13 words terminating in *b*, pronounced as *p*, but resuming in inflection the sonant labial (see *p = f*, p. 141). Further in the following words where, however, the English forms are not generally identical in formation with the German: *Deube* (diuba), *theft* (theofdb); *Gabe* (wanting in O.H.G.), *gift* (gift); *Glaube* (ga-loupo), *belief* (ge-leafa); *Kerbe* (wanting in O.H.G.), *kerf* (cyrf); *Laube* (loupa), *leaf* (leaf); *schnauben* (wanting in O.H.G.), *snuff* (wanting in A.S.); *Treber* (trĕber), *draff* (drof, 'draffy'); *Webe* (weppi), *weft* (wift).

B. FINAL: in the 14 words given above, under III. 2.

As will be seen by comparison, the relation between German and English is here founded on an important discrepancy of forms, all the German words terminating in a vowel, but all the English in *f* or *ft*. The retention of *f* in English is owing to the absence of a following vowel, since it is changed to *v* everywhere (except in *snuff*) before a vowel in inflection (as in *calf*, *calves*, *thirf*, *thieves*, etc.), or in kindred words (as in *theft*, *thieving*, etc.). The preceding 21 words belong therefore (all except *schnauben*) more properly to German *b* = English *v*, below.

9. German *b* = English *v*.

A. MEDIAL: *Abend* (apant), *evening* (äfen); *b-leiben* (llpan), *leave* (laefan); *Dieberei* (from diup), *thievery* (wanting in A.S.); *eben* (ĕpan), *even* (efen): *geben* (kĕpan), *give* (gifan); *glauben* (kaloupan), *believe* (be-lefan); *graben* (krapan), *grave* (from grafan); *Grube* (kruopa), *groove* (grôf); *haben* (hapĕn), *have* (habban); *heben* (heffan), *heave* (hebban); *Herbst* (herbist, herpist), *harvest* (härfest); *kleben* (chlĕpĕn), *cleave* (cleofian); *klieben*, *klöben* (chliopan), *cleave* (cleofian); *Knabe* (knabo), *knave* (cnapa, cnafa); *leben* (lĕpĕn), *live* (liflan); *Nabe* (napu), *nave* (nafu); *ober* (obar), *over* (ofer); *Rabe* (rabo, hraban), *raven* (hräfn); *Salbe* (salpa), *salve* (scalf); *schaben* (scapan), *shave* (scafan); *Scheibe* (sclpâ), *sheave*. *shive* (wanting in A.S.); *schieben* (sciopan), *shove* (scûfan); *sieben* (sipun), *seven* (seofon); *Silber* (silnpar), *silver* (seolfor); *sterben* (stĕrpan), *starve* (steorfan); *streben* (strĕpen?), *strive* (wanting in A.S.); *Stube* (stupâ), *stove* (stofe): from Lat. ?; *Stüber* (from L.G.), *stiver* (wanting in A.S.); *Taube* (tûpu), *dove* (dufe, duva); *treiben* (trĭpan), *drive* (drĭfan); *übel*

(upil), *evil* (yfel); *über* (upar, ubar), *over* (ofer); *weben* (wĕpan), *weave* (wefan). With these should be counted 20 words treated under the heading "German *b* = English *f*," above (III. 8).

According to this list, German *b* corresponds to English *v* in 53 words (2 wanting in o.h.g.), and in all medial. The Anglo-Saxon forms, wherever found, have *f*, but the Gothic (with one or two exceptions), *b*. The Old High-German forms have all, except *rabo*, *p*, the regular correspondent to Gothic *b*.

10. German *b* represented in English, mostly, by some vowel-change.

A. Initial: *Brack* (from l.g. wrak), *wreck*, *wrack* (wanting in a.s.).

B. Medial: *Eibe* (lwa), *yew* (lw, eow); *gelb* (kĕlo, genit. kĕlawes), *yellow* (geolo, genit. geolwes); *Habicht* (hapuh), *hawk* (heafoc); *Narbe* (m.g. narwe; akin to o.h.g. narwo, 'clamp'), *narrow* (nearo); *Schraube* (from l.g. scrûve), *screw* (wanting in a.s.); *Schwalbe* (sualawa), *swallow* (swalewe); *Sperber* (sparwari), *sparrow* (spearwa); *übel* (upil), *ill*, contraction of *evil* (yfel); *Wirbel* (wirvil), *whirl* (from hweorfan? o.n. hvirfil).

In seven of these ten words the German *b* is represented in the Old High-German by *w* (still retained in the English spelling), and in one by *v*. In the two remaining (*Habicht*, *übel*), it corresponds to an Old High-German *p* and an English *v* (but Gothic *b*, at least for *übel*).

11. English *b* not represented in German.

Humble-bee (wanting in a.s.), *Hummel* (humpol); *crumb*, *crumb-le* (crume), *Krume*, *Krümmel* (from l.g. krume); *mumble* (wanting in a.s.), *mummeln* (from l.g. mummeln); *slumber* (slumerian; o.e. slomer), *schlummern* (m.g. slummern); *Zimmer* (zimpar), *timber* (timber). (Some other words end in a written but mute *b*, as *comb*, *Kamm*, *lamb*, *Lamm*, etc.)

In only two (*humble*, *timber*) of these five words is the English labial supported by an older form. In the other words, *b* looks like a later epenthesis.

12. English *b* = German *w*.

Initial: *bet* (bad, wed), *Wette* (weti; Goth. vadi)?

13. German *f* = English *f*.

A. Initial: *Faden* (fadum), *fathom* (fădhm); *fahl*, *falb* (falo), *fallow* (fealu); *fahren* (faran), *fare* (faran); *fallen* (fallan), *fall* (feallen); *falten*

(faldan), *fold* (fealdan); *fangen* (faŋan), *fang* (fangan); *Farn* (faram), *fern* (fearn); *faul* (fûl), *fowl* (fûl); *Faust* (fûst), *fist* (fŷst); *fechten* (fĕhtan), *fight* (feohtan); *Feder* (fĕdara), *feather* (fedher); *fegen* (fagon), *fair* (făger); *Fehde* (fĕhida), *feud* (fädhu); *Feim* (feim), *foam* (fâm); *Feind* (fiant), *fiend* (feond); *Feld* (fĕld), *field* (feld); *Felge* (felaga), *felly, felloe* (felga); *Felge* (felaga), *fallow* (fcalga); *Fenn* (from L.G.), *fen* (fen); *fern* (fĕrri), *far* (feorr); *Fessel* (fezil), *fetter* (feter); *fest* (fasti), *fast* (fäst); *Fett* (wanting in O.H.G.; but feizit = *feist*), *fat* (fät); *Feuer* (fiur), *fire* (fŷr); *Filz* (filz), *felt* (felt); *finden* (findan), *find* (findan); *Finger* (fingar), *finger* (finger); *Fink* (fincho), *finch* (finc); *Finne* (from L.G.), *fin* (fin); *Fisch* (fisc), *fish* (fisc); *Flachs* (flahs), *flax* (fleax); *Fladen* (flado), *flat*-cake (wanting in A.S.)?; *Flagge* (from L.G.), *flag* (wanting in A.S.); *flattern* (wanting in O.H.G.), *flutter* (wanting in A.S.); *Fleisch* (fleisc), *flesh* (fläsk); *fletschen* (from flaz), *flatten* (from flat); *fliegen* (fliokan), *fly* (fleogan); *fliehen* (fliohan), *flee* (fleon); *Flies* (from L.G.), *fleece* (fleos); *fliessen* (fliozan), *float* (fleotan); *Flinte* (from Engl.), *flint* (flint); *flittern* (wanting in O.H.G.), *flit* (wanting in A.S.); *Floh* (flôh), *flea* (fleah); *Flucht* (fluht), *flight* (flyht); *Fohlen, Füllen* (folg, fulin); *foal* (fola), *filly; Fohre* (forahâ), *fir* (furh); *folgen* (folken), *follow* (fulgan); *foppen* (from L.G.), *fop* (wanting in A.S.); *förder, fürder* (furdir), *farther, further* (furdhôr); *fort* (wanting in O.H.G.), *forth* (fordh); *Fracht* (from L.G.), *freight, fraught* (wanting in A.S.); *frei* (frî), *free* (frî); *Freund* (friunt), *friend* (freond); *friezen* (friosan), *freeze* (freosan); *frisch* (frisc), *fresh* (fersc); *Frosch* (frosc), *frog* (frox); *Frost* (frost), *frost* (forst); *Fuchs* (fuhs), *fox* (fox); *Fuder, Futter* (fuoder), *fother, fodder* (fôther); *fühlen* (fuolan), *feel* (fĕlan); *füllen* (fullan), *fill* (fyllan); *fünf* (finf), *five* (fîf); *Furcht* (forahta), *fright* (fyrhtu); *Fuss* (fuoz), *foot* (fôt); *Vater* (fatar), *father* (fäder); *Vieh* (fihu), *fee* (feoh); *vier* (fior), *four* (feower); *Vogel* (focal), *fowl* (fugol); *Volk* (folc), *folk* (folc); *voll* (fol), *full* (ful); *vor, für* (fora, furi), *for* (for).

B. MEDIAL: *Gefahr* (fâra), *fear* (fär); *gift* (kift), *gift* (gift); *Heft* (hefti), *haft* (häft); *Kluft* (chluft), *cleft* (from clifan); *Kraft* (chraft), *craft* (cräft); *laufen* (hloufan), *loaf* (wanting in A.S); *oft* (ofto), *oft* (oft); *riefen, riefeln* (from L.G.), *rifle* (from Fr.?)?; *sanft* (samfti), *soft* (sĕfte); *Schaft* (scaft), *shaft* (sceaft); *Trift* (wanting in O.H.G.), *drift* (wanting in A.S.); *Werft* (from L.G.), *wharf* (whearf).

C. FINAL: *Elf* (from Engl.), *elf* (älf); *Huf* (huof), *hoof* (hôf); *Kneif* (from L.G.), *knife* (cnîf); *Riff* (from L.G.), *reef* (wanting in A.S.); *Schorf* (scorf), *scurf* (scurf); *Torf* (from L.G.), *turf* (turf); *steif* (from L.G.), *stiff* (stif); *Wolf* (wolf), *wolf* (wulf).

According to this list, German *f* corresponds to English *f* as initial in 72 words (8 wanting in O.H.G.), as medial in 12 words (3 wanting in O.H.G.), and as final in 8 words (5 wanting in O.H.G.). All the older forms, both Anglo-Saxon, Low-German, and Old High-German, have without exception *f*, the stereotyped substitute for the aspirated mute.

14. German *f* = English *p*.

A. MEDIAL: *Affe* (affo), *ape* (apa)?; *gelfen* (from kĕlf), *yelp* (gelpan); *griefen* (krĭfan), *gripe* (grĭpan); *Harfe* (harafâ), *harp* (hearpe); *Haufe* (hûfo), *heap* (heap); *helfen* (hĕlfan), *help* (helpan); *Hüfte* (from old Huft, o.h.g. huf), *hip* (hype); *Laffe* (from laffan), *lap* (lappian); *laufen* (hloufan), *leap* (hleapan); *offen* (ofan), *open* (open); *Saft* (saf), *sap* (sâp: from Lat. ?); *saufen* (sûfan), *sup* (sûpan); *schaffen* (scafôn), *shape* (scapan); *schlafen* (slâfan), *sleep* (slæpan); *schleifen* (sleifan), *slip* (slĭpan); *schweifen* (sueifan), *sweep* (swâpan); *Seife* (seiphâ), *soap* (sâpe); *Staffel* (stafal), *staple* (stapul); *streifen* (wanting in o.h.g.), *stripe* (strypan)?; *taufen* (toufan), *dip* (dippan); *Waffe* (wâfan), *weapon* (wæpen); *werfen* (wĕrfan), *warp* (weorpan).

B. FINAL: *auf* (ûf), *up* (up); *Hanf* (hanaf), *hemp* (hânep); *Kauf* (chouf), *cheap* (ceap); *Knauf* (from l.g.), *knop* (cnæp); *reif* (rîfi), *ripe* (rîpe); *Schaf* (scâf), *sheep* (sceâp); *scharf* (scarf), *sharp* (scearp); *Schiff* (scif), *ship* (scip); *stief-* (stiuf), *step-* (steop); *Stufe* (stuofa), *step* (stepe); *Welf* (huĕlf), *whelp* (hwelp).

Accordingly, German *f* corresponds to English *p* as initial in 22 words (1 wanting in o.h.g.), and as final in 11 words. The Anglo-Saxon forms have everywhere *p*, and the Old High-German forms *f* (written also *ph*).

15. German *f* = English *v*.

A. INITIAL: *Fahne* (fano), *vane* (fana; O. Engl. fane); *Fass* (faz), *vat* (făt).

B. MEDIAL: *Ofen* (ofan), *oven* (ofen); *Schaufel* (scûvalâ), *shovel* (sceopl).

C. FINAL: *elf* (einlif), *eleven* (endleofan); *Elf*, f. *Elfe* (from Engl.), *elve* (âlf); *fünf* (funf), *five* (fîf); *zwölf* (zuelif), *twelve* (twelf).

As thus shown, both the Anglo-Saxon and the Old High-German forms of these 8 words have *f*, which in English is changed to *v*.

16. German *f* = English *b*.

FINAL: *Knauf* (wanting in o.h.g.), *knob* for *knop* (cnæp).

17. German *f* = English *d*.

INITIAL: *finster* (finstar, dinstar, dimstar), *dim* (dim; O. Sax. thim).

18. German *f* = English *s*.

MEDIAL: *Holfter* (from huluft, which from hulst: Goth. hulistr), *holster* (akin to heolstor).

19. German *f* not represented in English.

A. MEDIAL: *Halfter* (halaftra), *halter* (hâlfter).

B. FINAL: *schief* (wanting in o.h.g.), *skew* (wanting in a.s.; o.n. skeifr)

20.   German *pf* = English *p*.

A.   INITIAL: Only a few words of doubtful origin come under this head, most German words with an initial *pf* being of foreign origin. Words not traceable to such a source are: *Pflicht* (fliht; M.H.G. phliht), *plight* (pliht); *Pflock* (wanting in O.H.G.; L.G. plugge), *plug* (wanting in A.S.); *Pflug* (plôh, phlaiog, phluoch), *plough* (wanting in A.S.); *Pfropf* (from L.G. propp), *prop* (wanting in A.S.).   Other only doubtfully borrowed words are: *Pfad*, *path* (from πάτος ?); *Pfand*, *pawn* (from O. Fr. *pan?*); *pflücken*, *pluck* (from Provenç. peluccar?); *Pfuhl*, *pool* (from Lat. *palus?*). Several others are with more certainty imported words, and therefore here omitted.

B.   MEDIAL: *Hopfen* (hopho), *hop* (wanting in A.S.): fr. Lat.?; *klopfen* (chlophôn), *clap* (clappan); *schlüpfen* (slupfan), *slip* (slipan); *Schnepfe* (snepha), *snipe* (wanting in A.S.); *schöpfen* (schepfen, scephan), *scoop* (wanting in A.S.); *schrumpfen* (wanting in O.H.G.), *shrimp* (scrimman? prov. Engl. skrimp); *Stapfe* (stapho), *step* (stæpe); *stampfen* (stamphon), *stamp* (wanting in A.S.); *Strüpfe* (wanting in O.H.G.), *strap* (stropp); *Tropfen* (tropho), *drop* (dropa); *Zapfen* (zapho), *tap* (täppa); *zimpfern* (wanting in O.H.G.), *simper* (wanting in A.S. and kindred tongues).

C.   FINAL: *Dampf* (damph), *damp* (wanting in A.S.); *Knopf* (chnoph), *knop* (cnæp); *Pfropf* (from L.G. propp), *prop* (wanting in A.S.); *Rumpf* (from L.G.), *rump* (wanting in A.S.); *Stumpf*, *stumpf* (stumph), *stump* (wanting in A.S.); *Sumpf* (sunft), *swamp*, *sump* (wanting in A.S.); *Topf* (toph), *top* (wanting in A.S.); *Zopf* (zoph), *top* (top).

Accordingly, German *pf* corresponds to English *p* as initial in 4 words (2 wanting in O.H.G.), as medial in 12 words (3 wanting in O.H.G.), and as final in 8 words (2 wanting in O.H.G.).   Only nine corresponding forms are found, altogether, in Anglo-Saxon, and they all have *p*.   The Old High-German forms have *ph* (often optionally *f*), which is sometimes equivalent to *f* and sometimes to *pf*, the two aspirated forms of the Gothic *p*.

21.   German *pf* = English *b*.

FINAL: *Knopf* (chnoph), *knob* for *knop* (cnæp).

IV.—NASALS (EXCEPT PALATAL), SEMIVOWELS, AND *H*.

These letters remain, as a rule, unaltered throughout the Germanic languages.   So likewise, though in a less degree, *s*, which has been treated above (see page 137, end).   Most

of the words in which any of these letters occur have been given in the preceding, and it will be sufficient here to enumerate the few cases only in which German nasals, semi-vowels, or *h* are represented in English by different sounds, or lost. Cases in which English consonants are represented in German by different sounds—*v* by *p*, *b*, or *f*; *b* by *w*; *y* by *g*; and *r* by *s*—have been given in connection with the preceding.

1. German *n* = English *m*.

FINAL: *Besen* (pĕsamo), *besom* (besma); *Boden* (podam), *bottom* (botm); *Busen* (puosum), *bosom* (bôsum); *Faden* (fadum), *fathom* (fădhm).

As thus shown, the English *m* is here the older nasal.

2. German *n* not represented in English.

A. MEDIAL: *ander* (andar), *other* (ô-dhor); *Biene* (from the plur. form bini; also sing. pla), *bee* (beo); *fünf* (finf), *five* (fif); *Gans* (kans), *goose* (gôse); *Zahn* (zand), *tooth* (tôdh).

B. FINAL: the loss of final *n* (*en*) in English is of exceeding frequency, being, indeed, one of the chief means by which this language has assumed so much of a monosyllabic character. In all the words compared, 310 instances of such a loss (chiefly in verb-forms such as *lore*, A.S. *lufian*; *fall*, A.S. *feallan*; etc.) have been noted.

3. German *r* = English *s*(*z*).

MEDIAL: *frieren* (friosan), *freeze* (freosan); *küren* (probably from *Kür*, which comes from *kiesen*), *choose* (ceosan = *kiesen*; but *Kür* = A.S. cyre); *verlieren* (far-liusan), *lose* (leosan).

Here German *r* is changed from an earlier *s*.

4. German *r* not represented in English.

FINAL: *der* (dĕr), *the* (the, se); *er* (ir, hĕr), *he* (he); *wer* (huer), *who* (hwâ); *wir* (wĭr), *we* (we).

5. English *r* not represented in German.

FINAL: *there* (thaer), *da* (dâr = dar); *here* (hĕr), *hie* = *hier*.

6. German *l* = English *r*.

A. INITIAL: *stammeln* (stammalôn), *stammer* (A.S. stamor, 'stammerer': L.G. stammern); *wispeln* (huisbalôn), *whisper* (hwisprian).

B. FINAL: *Fessel* (fezzera), *fetter* (feter).

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7.   German *l* not represented in English pronunciation.

MEDIAL: *als* (al-sô; M.H.G. alse), *as* (ase); *Balken* (palcho), *balk* (balc); *halb* (halp), *half* (healf); *Halm* (halm), *halm*, *haum* (healm); *Kalb* (chalp), *calf* (cealf); *Qualm* (qualm), *qualm* (cwealm); *Salbe* (salpa), *salve* (sealf); *solch* (sôllh), *such* (swilc); *Volk* (folc), *folk* (folc); *welch* (huellh), *which* (hwylic).

 In 8 of these 10 words the original *l* is still retained in English spelling. Only in *as* and *such* is it dropped in writing; and in the former, it was lost already in Anglo-Saxon.

8.   German *w* not represented in English pronunciation.

INITIAL: *wer* (huer), *who* (hwâ).

MEDIAL: *Schwert* (suert), *sword* (sweord); *Schwester* (suestar), *sister* (sweostor); *süss* (suozi), *sweet* (swête). (*Wittwe*, *widow* is apparently from the Latin *vidua*.)

9.   English *v* not represented in German.

MEDIAL: *clover* (claefer), *Klee* (chlêo, genit. chlêwes).

10.   English *y* not represented in German.

INITIAL: *you*, *your* (eowic, eower), *euch*, *euer* (iuwih, iuwar).

11.   German *h* = English *g*.

MEDIAL: *ziehen* (ziohan, pret. zôh, zôg), *tug* (teohan, pret. teah, tugon).

12.   German *h* = English *f*.

MEDIAL: *zähe* (zahi, zâh), *tough* (tâh).

13.   German *h* represented in English mostly by some vowel-modification.

A. INITIAL: *Holder* (holter), *elder* (ellarn?).

B. MEDIAL: *blähen* (plâjan, blâhan), *blow* (blâwan); *blühen* (pluojan, pluohan), *blow* (blôwen); *drehen* (drâjan, drâhan), *throw* (thrawan); *drohen* (drouwan, drôan), *throe* (threaw, from threowan); *eher* (êr), *ere* (aer); *ehern* (êrin), *ore* (ôr); *fliehen* (fliohan), *flee* (fleon); *gehen* (kân), *go* (gangan); *Krähe* (chraia), *crow* (crawe); *Lohe* (louch), *low*, obsol. (lêge); *mähen* (mâhan), *mow* (mawan); *nahe* (nâh), *nigh* (neah); *Reihe* (rîga), *row* (râw); *sehen* (sêhan), *see* (seon); *spähen* (spêhôn), *spy* (probably through Fr. ?); *stehen* (stantan, stân, stên), *stand* (standan); *Wehe* (wêwo), *woe* (wâwa, wâ); *Zehe* (zêha), *toe* (tâh).   To these should be added a few words terminating in an organic *h* (as *roh*, *raw*, *Stroh*, *straw*), which though mute when the word is uninflected is pronounced before a vowel in inflection.

In four of these words (*eher, ehern, gehen, stehen*), the German *h* is only the inorganic sign of lengthening used in *eh* (from *êr*), and in the earlier forms *ehrn, gehn, stehn* (O.H.G. *êrîn, kân, stên*). For the rest, the loss in English of the Anglo-Saxon consonant corresponding to the German *h* is connected with the loss of the final syllable following it (mostly the infinitive ending *-an*).

14. English *h* not represented in German.

He (he), *er* (er, hĕr); *horse* (hors, for hros), *Ross* (hros); *whale* (hwäl), *Wall*-fisch (wal); *what* (hwät), *was* (hwaz); *whether* (hwädher), *weder* (huĕdar); *while* (hwîl), *Weile* (hwîla); *whine* (wânîan, cwânian), *weinen* (weinôn; Goth. qainôn); *white* (hwît), *weiss* (hwîz); *wheat* (hwâte), *Weizen* (hueizi); *which* (hwilc), *welch* (huĕlîh); *whelp* (hwelp), *Welf* (huĕlf); *when* (hwänne), *wenn, wann* (huanne); *wharf* (whearf), *Werft* (from L.G.); *who* (hwâ), *wer* (huer); *whet* (hwettan), *wetzen* (huazan); *whimper* (wanting in A.S.), *wimmern* (wanting in O.H.G.); *whirl* (from hweorfan?, O.N. hvirflll), *Wirbel* (wirvil, from huĕrpan); *whisk* (wanting in A.S.), *Wisch* (wisc)?; *whisper* (hwisprian), *wispeln* (huispalôn); *where* (hwär), *wo* (wâ, Goth. hvar).

The English *h* is here supported by the older forms everywhere, except in *whimper* and *whisk* whose connection with *wimmern* and *Wisch* may be doubtful. As is here shown, it is almost only before *w* that the German *h* is lost, a fact doubtless due to the pronunciation of *w* as a labial spirant; while in English its semi-vocal character favored the retention of *h*.

The relation of German and English consonants to the original Germanic consonants (as represented in Gothic and Anglo-Saxon) is, approximately stated, as follows:

Palatal mutes, fricatives, and nasals :—

German: unchanged 58%; changed 42% (by strict permutation only 1.7%, or, calling *ch* and *sch* regular aspirations of *k* and *sk*, nearly 35%; by irregular change 7%).

English: unchanged 75%; changed 25% (especially *ch* and *sh* from earlier *k* and *sk*).

Dental (lingual) mutes and fricatives :—

German: unchanged 54% (counting also *s*), changed 46% (by strict permutation nearly 27%, or, calling *z* and *s* regular aspirations of *t*, 40% ; by irregular change 6%). It should be noted that not far from one-half of the unchanged cases come under the sibilant *s*. Omitting it, except where it represents an original *t*, the relation is : unchanged over 37%, changed 63% (regularly 49 or 55%, irregularly 8%).

English : unchanged 99.5% ; changed 0.5% (some five changes of uncertain value in nearly a thousand instances).

Labial mutes and fricatives :—

German: unchanged 75% ; changed 25% (by strict permutation 4.3%, or, calling *f* the regular aspiration of *p*, 13 % ; by irregular change 12%). In this estimate *b* has in 52 German words been counted as unchanged, because the Gothic forms, where found, have, as a rule, *b;* but it should be noticed that the Anglo-Saxon forms have *f* (English *v*).

English: unchanged 86% ; changed 14% (especially *v* from an Earlier Anglo-Saxon *f*, Gothic *b*).

The prevalence in the palatal and labial series (in the dental only when counting *s*) of unchanged consonants is, in German, decided. Altogether their ratio to changed consonants is (omitting the unaltered *s*) nearly 57%. The number of irregularly changed consonants is quite considerable, being altogether (even counting *ch*, *sch*, *z*, *s*, and *f* as regular permutations) over 20% of all changes. Deducting *all* words not represented in the Old High-German and largely borrowed from Low-German dialects, the stationary character of the New-German becomes somewhat less marked.

In English the consonants in question are original, almost absolutely in the lingual series, less so in the labial, and in the palatal about 25% are modifications of earlier sounds. The only parallel change (save in a few sporadic cases) between English and German is that of *sk* to *s(c)h*. The loss of consonants amounts in English (as compared with German) to 130, 96 of which belong to the palatal series : (the fact

that about 350 have been lost in the nasal and semi-vowel series has already been noted). In German the loss (as compared with English) amounts only to 28.

Among irregular changes are noticeable especially:

a. Inorganic changes from one series to another. In German: *sch* from *s;* *k* from *t;* *k* from *th;* *ch* from *f;* *sch* from *t;* *f* from *s;* *f* from *d.* In English: *t* from *h;* *f* from *g;* *f* from *h.* All these, except *sch* from *s* (in 60 or even 140 instances), are entirely sporadic, and often of a doubtful character.

β. Apparent second progression. The quasi-aspiration of medial and final *g* in German words whose Old High-German forms have *k* (comp. p. 121, etc.) is equivalent to a further progression of the Old High-German *k.* The change of *t* and *p* from an earlier *th* and *f,* and of *g* from *k,* bears the same aspect.

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AMERICAN PHILOLOGICAL ASSOCIATION.

1879-80.

MEMBERS IN ATTENDANCE AT THE TWELFTH ANNUAL SESSION.

(From the Autograph Register.)

Charles J. Buckingham, Poughkeepsie, N. Y.
Henry F. Burton, University of Rochester, Rochester, N. Y.
William C. Cattell, Lafayette College, Easton, Pa.
Howard Crosby, University of New York, New York, N. Y.
M. M. Fisher, University of Missouri, Columbia, Mo.
S. S. Haldeman (University of Pennsylvania), Chickies, Pa.
Isaac H. Hall, Philadelphia, Pa.
Caskie Harrison, University of the South, Sewanee, Tenn.
Milton W. Humphreys, Vanderbilt University, Nashville, Tenn.
Ashley D. Hurt, Louisville, Ky.
E. H. Magill, Swarthmore College, Swarthmore, Pa.
Francis A. March, Lafayette College, Easton, Pa.
John Meigs, The Hill School, Pottstown, Pa.
F. A. Muhlenberg, University of Pennsylvania, Philadelphia, Pa.
Charles P. Otis, Massachusetts Institute of Technology, Boston, Mass.
Julius Sachs, 649 Madison Avenue, New York, N. Y.
Charles P. G. Scott, Columbia College, New York, N. Y.
E. G. Sihler, 152 East 28th Street, New York, N. Y.
Frederick Stengel, School of Mines, Columbia College, New York, N. Y
Franklin Taylor, 1230 North 18th Street, Philadelphia, Pa.
Crawford H. Toy, Harvard University, Cambridge, Mass.
F. W. Tustin, University at Lewisburg, Lewisburg, Pa.
Revere F. Weidner, 1330 Franklin Street, Philadelphia, Pa.
W. D. Whitney, Yale College, New Haven, Conn.

Professor F. A. March, of Lafayette College, Easton, Pa., chairman of the Committee on the reform of English Spelling, appointed in 1875, and continued in 1876, 1877, 1878, and 1879, reported:

Dhe Committee haz not taken any offiçial action dûring the last year.

Dhere haz, however, been much interest in the reform. Dhe Spelling Reform Assoçiation met in Jûly, 1879, az a branch of the National Edû·cational Assoçiation. Rezolûtionz in favor of reform had alredy been past bj the State Teacherz' Assoçiationz of Pennsylvania, Massachûsetts, New York, New Jerzey, Ohjo, Iowa, Missouri, Maryland, and Virginia, az wel az bj the American Institûte of Instruction and uther bodiez of teacherz. Paperz wer prezented at this meeting bj Professor S. S. Haldeman of the Universitɥ of Pennsylvania, Mr. E. Jonez of Liverpool, Hon. W. T. Harris of St Louis, and Mr. S. N. D. North of the Utica *Herald.* Dhey wer printed in fonetic spelling in the Proçeedingz of the National Edûcational Assoçiation. Dhe State Teacherz' Assoçiation of Missouri also voted to print their proçeedingz in fonetic type.

In August and September *Scribner's Monthly* publisht two strjking articlz in favor of the reform from Professor Lounzbery of Yale.

On the 2d of September the Chicago *Tribüne* appeard in amended spelling thruout. On the 17th, the *Home Journal* of New York began to be printed with the following amendments:

1.—Drop *ue* at the end of wurdz ljke djalogue, catalogue, where the preçeding vowel iz short. Dhus spel demagog, pedagog, epilog, synagog, etc. Change tongue for tung. When the preçeding vowel iz long, az in prorogue, vogue, disembogue, rogue, retain fjnal letterz az at prezent.

2.—Drop fjnal *e* in such wurdz az definite, infinite, favorite, where the preçeding vowel iz short. Dhus spel opposit, preterit, hypocrit, requisit, etc. When the preçeding vowel iz long, az in poljte, fjnite, invjte, unjte, etc., retain prezent form unchanged.

3.—Drop fjnal *te* in wurdz ljke quartette, coquette, çigarette. Dhus spel çigaret, rozet, epaulet, vedet, gazet, etc.

4.—Drop fjnal *me* in wurdz ljke programme. Dhus spel program, oriflam, gram, etc.

5.—Change *ph* for *f* in wurdz ljke phantom, telegraph, phase. Dhus spel alfabet, paragraf, fîlosofy, fonetic, fotograf, etc.

P. S.—No change in proper namez.

Dhey hav been followd bj the Utica *Herald,* the Toledo *Blade,* the Burlington *Hawkeye,* the Cleveland *Leader,* and many uther paperz. Dhe *Electrotyper,* the *Type Founder,* and the *Electrotype Journal* had erlier mended their wayz. Dhe New York *Independent,* the *Princeton Review* the *New England Journal of Education,* and many uther periodicalz admit articlz in improved spelling. Uther paperz sjlently change the spelling of a wurd or two, az the Springfield *Republican* prints *etiquet* and *program,* and the *Princeton Review tho* and *altho.* It iz stated that over two hundred jurnalz and periodicalz in this cuntry uze a greater or les number of such corrected spellingz.

Dht *Home Journal* haz issüed a' broadsjde ef letterz in favor ef a briefer spelling from one hundred reprezentativ authorz and scholarz, inclûding twenty-fjve prezidents of ltading collegez, and reprezentativz of fifty collegez from Maine to Θregon. Dht Çhicago *Tribüne* and tht *National Journal of Education* hav publisht similär collectionz ef opinionz.

Dht House Committee ef Edûcation and Labor at Washington reported a bil to empower tht Prezident to appeint a Commission to investigate and report upon tht spelling ef tht public doctments, with a view to its simplification, and to a joint commission with tht government of Great Britain.

In England also there haz been important progres. Cl large number ef tht most eminent men hav acçepted offiçez in tht new Spelling Reform Assoçiation, Max Müller, Murray, Darwin, Tennyson, Bain, J. H. Gladstone, Lowe, Tylor, and tht ljke. Dht Assoçiation haz begun to publish a Munthly.

Dht Philological Soçjety of England haz also taken up tht reform in ernest, and appeinted a committee to report a list ef wurdz nteding amendment in behalf ef etymology and history az wel az orthoepy. Dht list iz to bt prezented by Mr. Swtet, tht Anglo-Saxon scholar, on tht 9th ef Jûly. It wil doutles contain sum thouzandz ef wurdz, and it iz to bt hoped that this Assoçiation wil bt abl to approve it, and giv it to tht public. To that end it mjght perhaps bt dezjrabl to continû tht committee anuther ytar.

After a short discussion, the report was accepted and the committee continued for another year.

The first paper was by Dr. E. G. Sihler, of New York City, on "Diogenes Laertius and Lucian, or notes on the Tradition of Oriental Descent of Greek Philosophy."

I. In the prooemium of Diogenes Laertius two traditions are advanced: *a.* that higher thought and speculation was developed among the βάρβαροι before it began among the Greeks; *b.* an opposing view, § 3 ff., that the εὕρεσις of philosophy was an original work of the Greek mind, although its first germs were in the early musical culture and in the secret religious doctrines of the Orphic schools. Diogenes very probably represents, in this portion of his compilation, the encyclopedic collections of Favorinus of Arelate, a contemporary of Lucian in the second century after Christ. See Fr. Nietzsche in the Rhein. Museum, vols. 23 and 24, and Gellius, N. A. xiv. 6. 3. The more authoritative among modern expositors have refused to adopt the tradition of oriental descent: so H. Ritter, Ancient Philosophy, I. 160, and E. Zeller, Philosophie der Griechen, I. 20 ff. Much importance is attached to it, on the other hand, by Schaefer, in a recent treatise entitled, Quid Graeci de origine philosophiae a barbaris ducenda existimaverint, secundum D. Laertii prooemium exponitur (Leipzig, 1877).

II. Lucian, in his Fugitivi, considers Greek philosophy as undergoing a process of deterioration from its beginning. The crude speculations of

the Seven Wise Men and of the early Ionic thinkers are appreciated more highly than is the elaborate and dialectic philosophy of Socrates and his successors. The Orient is treated as the cradle of philosophic wisdom. Like Diogenes Laertius, Lucian assumes an unbroken line of communication beginning in India, crossing into " Ethiopia," descending the Nile into Egypt, extending thence to the Magi and Chaldeans of Babylon and Assyria, thence into Scythia and so into Thrace and Greece. Schaefer in his dissertation seems to have overlooked Lucian. Lucian's view is shared by his contemporaries, such as Tatian the father (Oratio ad Graecos, 1), and a little later by Clement of Alexandria (Stromata i. 13 ff., v. 4, vi. 4, vii. 7).

The view of Oriental descent is a characteristic product of the second century, when the syncretistic efforts of Pergamon began to point to the internal decay of philosophy. It was the same movement of thought which in the next century received a final expression in Neo-platonism.

Professor F. A. March, of Lafayette College, Easton, Pa., then read a paper on "Some Points in Anglo-Saxon Phonology."

1. Indicationz ov sonant *s* in Aŋglo-Saxon. Swëet sayz it iz alwayz surd. Trautmann objects becauze "sonant *s* alone can interċhange with *r*." Ðhë rëasoning ov Trautmann waz criticized. Sum evidençe ov sonant *s* waz however pointed out in wëak perfects l̦ike *lȳs-de* compared with thoze l̦ike *cyste*.

2. Ðhë combinationz *ea, eo*. It haz bëen ûsûal to distiŋguish difċhongz from breakingz bị puting an accent over thë last leter ov difċhongz, az in Grëek. Ðhis notation iz not intended to deçịde that thë last leter iz thë most prominent in every wurd. But sum ov thë yuŋger ǧermanz ar corecting every one who ûzez thë notation, az being mistaken about thë pronunçiation. Ðhey woud hav an accent alwayz on thë first leter. If it iz intended to indicate nịçetiez ov pronunçiation, there shoud bë diferent notation for diferent clasez ov wurdz and for thë same wurd in diferent agez and authorz.

3. Ðhë conjugation ov *weaxan*. Sievers calz it a redûplicating verb, becauze, hë sayz, thë perfect haz not bëen found in thë form *wóx*. Example ov *wóx* wer givn (Mat. xiii, 7, Rid. v. 3), and it waz argüed that *weaxan* iz a breaking, and to bë conjûgated with thë coresponding verb in uther languagez.

Remarks were made upon this paper by Professor S. S. Haldeman, Professor W. D. Whitney, and Professor M. W. Humphreys.

Professor F. A. March, of Lafayette College, Easton, Pa., read a paper on "The Point of View in King Lear."

Fač character in Shakespëare spëaks from hiz own point ov view, yet in bringing all this varịety to ûnity in any play, thë artist Shakespëare haz a siŋgl point ov view ov hiz own. Every thing in Romeo and Juliet apëarz to thë spectator az it duz to a yuth. Juliet, thirtëen yëarz old, iz old enuf. In Hamlet wë sëe thë wurld az it looks to one just entering thë batl ov l̦ife. Ðhë fauther ov our Ophëlia iz a superfluous old Polonius.

Up to this age rĕaders ov poetry ĕasily acçept thĕ point ov view. But Shakespĕare grows older. In Macbeth and Othello thĕ general point ov view is that ov men ov midl age. Dhĕ larger number ov rĕaders ov poetry hav had no suċh expĕriençes. In Lĕar thĕ wurld is sĕen from thĕ point ov view ov an infirm old man, an insane man, and a king.

Dhis point ov view is so pecûliar, and Shakespĕare's triumf in present-ing thĕ drama from it, is so wunderful, that it is wurthy ov speçial con-sideration.

Dhĕ gist ov thĕ story is that an old king, fĕeling his powers to bĕ failing, divĩdes his kingdom betwĕen two dauters, reĕerving to himself thĕ rĩht to liv in their families with a hundred knĩhts. Dhĕ dauters tĩre ov him and his knĩhts, and tel him hĕ must do without so large a speçial folowing. Dhis trĕatment drĩves him insane. Hĕ becums a wanderer. Ɑ third dauter, whom hĕ had disinherited, cums to aid him, and is unsucçesful and they dĩe together.

Supoĕe now wĕ look at this story from thĕ point ov view of thĕ yung folks, ov thĕse new-maried cuples, who hav to entertain thĕ old king and his hundred knĩhts. Dhis is thĕ way they look at it.

> —your all-licens'd fool,
> (And) other of your insolent retinue
> Do hourly carp and quarrel.
> —this our court, infected with their manners,
> Shows like a riotous inn;
> What need so many?
> By day and night he wrongs me.

Change thĕ sex ov Lĕar. Hardly any point ov view is more familiar in literatûre than thĕ maried man's view of thĕ wurying muther-in-law. Many rĕaders woud bĕ prompt to say, Thĕse children hav a hard tĩme ov it. Shakespĕare dus not disgĩĕe this. Hĕ shows us thĕ king in his unrĕaĕon, his pasion, his wurying, his demintĕring. How then dus hĕ bring us to acçept his point ov view?

Dhĕ çentral sourçe ov this power sĕems to bĕ thĕ perfect uterançy ov thĕ king, thĕ ĕaĕe and copiusnes with which hĕ give intense expresion to his fĕelings.

Hĕ is rĕgal withal, every inċh a king; and, in thĕ first sçĕne, as wĕ hĕar him dispensing kingdoms and curses so grandly and so strangly, wĕ giv thĕ reins to imagination, and bid farewel to thĕ rĕgions ov commun sense, as tho wĕ wer lisening to thĕ hĕros or gods ov Aeschylus.

Dhĕ difficulty ov kĕeping us in sympathy with thĕ old king afterwards is met bĩ showing thĕ yung folks comiting crĩmes toward ĕaċh uther abhorent to hûman natûre, so that no one thiŋks ov questioning thĕ justiç ov their father's reproaċhes and curses.

And, fĩnaly, at thĕ crĩsis ov thĕ play, at thĕ tempest, thĕ whirlwind ov his pasion, when conversation with uther men must nĕeds bĕ pitiful or lafabl, thĕ powers ov natûre, nĩht, and storm, and durknes fil thĕ stage; rain, wind, thunder, fĩre becum thĕ old king's interlocûtors. Wĕ sĕe thĕ hevns taking part agenst us, and thĕ gods kiling us for sport, as wanton boys kil flĩes. It woĕ a mater ov course that Shakespĕare, who

coud cary us with tht king to such hįhts ov frantic pasion at tht woundz oferd to hiz imaǵination and kingly prįde, shoud bt abl to ktep us with him in hiz truly hüman wo at tht deth ov tht dauter ht luvd. Ttarz shed over Cordtlia nted no explanation. But Ltar'z perfect uterançy in gentlnes iz az notiçabl az that in pasion.

This greatest ov Shakesptare'z playz must, lįke uther greatest wurks ov art, bt taken bį most ov us with a large mesūre ov faith. Wt never hav been old men. Wt never hav had thankles dauterz. Wt never hav been insane. Wt do not tven know bį observation how tht insane act and talk.

It iz a cūrious inquįry whether Shakesptare did this wurk from fançy, or whether it embodiez exptriençez; whether ht had wacht and studied an insane frend; whether ht had a thankles dauter, and a Cordtlia, to whom, a hapier than Ltar, ht left hiz litl kingdom.

Professor S. S. Haldeman of the University of Pennsylvania, Philadelphia, Pa., read a paper on "English Words formed by Paresis or the Neglect of Parts."

After words have been lengthened by the addition of parts, the process of shortening commences; and when both forms remain, the language is often enriched with synonyms which acquire variations of meaning, as between 'movement' and 'moment,' 'fragile' and 'frail.' The paper contains a list of about five hundred English words formed in this manner.

Remarks were made upon this paper by Professor W. D. Whitney, Professor M. W. Humphreys, Dr. Howard Crosby, and Dr. E. G. Sihler.

A paper by Dr. A. H. Edgren, of the University of Lund, Sweden, entitled "A Statistical Exhibit of Kindred Teutonic Words in German and English with reference to their Consonant Relations," was read, in the absence of the author, by Professor W. D. Whitney.

The object of this paper was to illustrate the phenomena of the so-called Grimm's Law, or the rotation of mutes in Germanic language, so far as they are exhibited by the comparison of modern German and modern English, by complete lists of English words with the corresponding German ones—each English word being accompanied by its Anglo-Saxon original, and each German word by its Old High German original, so far as these are traceable.

After an introduction on the general subject of Grimm's Law, especially in its second part, stating the changes from general German to High German, and on the exceptions to it, the dialectic varieties of High German, the relation of modern German to Old High German, and that of English to Anglo-Saxon, the detailed comparison of words is taken up, in the order: 1. palatal mutes, fricatives, and nasals; 2. lingual mutes and fricatives; 3. labial mutes and fricatives; 4. nasals (non-palatal), semi-

vowels, and *h*. The comparison starts from the German word generally, because of the fuller forms of the German. Initial, medial, and final consonants are considered separately. For example: under the head of German *k* are given first the English words which show a corresponding *k*-sound (however written), under the divisions of initial (53 words), medial (50), and final (19); then, in like manner, the English words showing a *ch*-sound, a *g*-sound, a *j*-sound, a *t* or *th* sound (rare and anomalous), and a loss of the sound—and so on with the other letters.

As the paper is expected to be printed in full in the Transactions, a more detailed analysis and abstract is not called for here.

The Treasurer, Charles J. Buckingham, Esq., presented his report, showing the receipts and expenditures of the past year. (See p. 34.)

The Chair appointed President William C. Cattell and Dr. Howard Crosby a committee to audit the Treasurer's report.

The committee on the hours of meeting reported in favor of the arrangement of sessions as follows: from 9 o'clock to 1; from 4 to 6; and from 8 to 10.

On motion the report was approved.

A recess was then taken from 6 until 8 o'clock.

PHILADELPHIA, Tuesday, July 13, 1880.

EVENING SESSION.

The Association met at 8.30 P. M.

The Secretary announced the election to membership of :

Dr. Isaac H. Hall, Philadelphia, Pa.

Dr. Julius Sachs, of New York City, read a paper entitled "Observations on Lucian."

To appreciate the artistic quality of Lucian's writings it does not suffice to obtain a general conception of the various literary and social conditions of his time; each treatise of his must be carefully analyzed, and his mental attitude carefully ascertained. Schwarz, starting from this principle, endeavors to reconstruct a more tangible, consistent Lucian for us than we have hitherto had. The excessively detailed research which he has instituted has led to various inconsistencies that mar the success of his efforts. The writings should be considered by *groups*, not as individual treatises.

Two instances will serve to point out conclusions, resulting from the method of separate investigation, which the author of this paper cannot assent to. Schwarz considers the Nigrinus a satire, not a true portrayal of the character of that philosopher. His argumentation, plausible as it may seem, fails to take into consideration the introductory epistle to Nigrinus

which is genuine, and cannot be so construed as to form the introduction
to a satiric essay.

Sommerbrodt rejects the biography of Demonax as a treatise of Lucian;
he refers merely to its blundering description, whilst he commends the
Nigrinus for its delicacy of observation and pregnancy of characterization.
The difference of style is however readily to be accounted for: the latter
is an artistic production intended to please by its form as well as by its
contents; the biography of Demonax is an unfinished βίος, for which form
of composition a generally prevailing scheme must have existed, admitting
of but slight variation.

Remarks were made upon this paper by Dr. Howard Crosby.

The Annual Address was delivered by the President, Professor
Crawford H. Toy.

After congratulating the Association on the favorable circumstances
under which this session had begun, and commending the *American
Journal of Philology*, established and mainly supported by members of the
Association, the President spoke in substance as follows:

The plan of our society includes the investigation of all families of
languages, and at present instead of having a division into sections devoted
to particular families, all ,papers are read before the whole body. This
system, which is not without its disadvantages, has, however, the advantage
of keeping each member in sympathy with the progress in various direc-
tions of linguistic research. I need offer, therefore, no apology for taking
as the subject of my address the study of the Semitic languages. The
claims of this study on a linguistic society are obvious. Not only are these
languages interesting in themselves in their grammar and literature, but
they are necessary in the study of general grammar. Their differences
from the Indo-European languages make it important that they should be
taken into consideration in attempts to construct a science of language;
any science of language founded solely or mainly on the Indo-European
family must be imperfect and erroneous. In the character of its roots,
the structure of the noun and verb and of the sentence, the Semitic group
offers much that is peculiar, and the investigation of these phenomena has
resulted in the discovery of principles that are to be regarded as contri-
butions to the science of language. It may be added that recent
achievements in the direction of grammatical historical research are of
extreme interest. Two new Semitic languages have been discovered and
their grammars constructed, namely, the Babylonian-Assyrian and the
Sabean; a very important non-inflecting tongue, the Accadian, has been
exhumed with a large and valuable literature; and traces of still another,
to which the name of "Hittite" has been provisionally given, have been
found; and it is to Semitic scholars that the decipherment and interpre-
tation of the Cypriote inscriptions is largely due. The thrillingly
interesting historical and mythological results that have been reached in
connection with these researches are familiar to us all.

It is an unwelcome, but undeniable fact that the scientific study of the
Semitic languages has lagged behind that of the sister Indo-European

family.   One reason for this is that the interest in this group has pertained chiefly to the Hebrew, and study in this language has been fettered by ecclesiastical interests.   All honor to the noble scholars in Europe and America of all faiths who have devoted themselves to it, and to the spirit of true religion which has fostered it; yet we know that, with the purest intentions on men's part, an inflexible set of ideas is unfavorable to free investigation, without which there can be no progress.   The history of Semitic, particularly Hebrew, study illustrates this.

Jewish grammatical study began in the first centuries of our era as a mere chronicling of facts for the benefit of the synagogal reading, and retained this mechanical character through the periods of Syrian and Arabian influence, and up to the time of Elias Levita, who first took decided stand against the traditional views, and reached something like a correct opinion as to the origin of the Hebrew vowel points.   The early Christians were not friendly to the study of Hebrew; they were content with the Greek translation of the Old Testament, and fancied that the Jews were disposed to alter the original text in a polemical interest. Origen studied Hebrew, but Jerome is the first Christian of whose Hebrew scholarship we know anything definite.   He groaned and wept in the Syrian desert over the rasping gutturals, but persevered, and became a respectable, it may be said a remarkable scholar; his great contemporary, Augustine, preferred to expound the Psalms in the Septuagint, including the unintelligible translations and transliterations of the titles.

From Jerome's time Christian study of Hebrew suffered eclipse till the fifteenth century, when, under the revival of learning, Reuchlin and others earnestly pursued it, and it received a further impulse from the religious movement set on foot by Luther.   There were some, however, who shrank from it with horror, saying that "a new language had been invented, and whoever learned it immediately became a Jew!"   During the sixteenth century the study went on quietly, but in the next century made a great step forward, partly by the pursuit of various Semitic dialects, partly by the wonderful discovery that the common Hebrew letters were not the original ones.   The history of the discovery is an exciting one.   A manuscript of the Samaritan Pentateuch, written in Samaritan or old Hebrew characters, comes over to Europe.   The Frenchman, Ludovicus Cappellus, examines it and announces his startling conclusion in a book, which he first sends to the venerable Buxtorf at Basle.   The latter earnestly opposes its publication.   Finally, by Erpenius' advice, Cappellus publishes his work, which raises a storm of controversy.   Buxtorf, the son, replies in a learned work.   The battle rages a hundred years.   At last the scholarly public indorses Cappellus, and things go on quietly again.   Meantime, the study of Syriac, Samaritan, Arabic, and Ethiopic had been begun with ardor, and England was foremost in Semitic science, under the impulse given by the new discoveries and in the spirit of the great national movement that marked that century, which was largely religious.

Next came the eighteenth century, the period of quiet investigation of principles, often unjustly stigmatized as a merely skeptical and negative

period; it was a time of philosophical reflection, but not of great progress in linguistic resources and methods. It must be borne in mind that the science of language did not yet exist. Finally, in our own century, Semitic study has advanced rapidly, chiefly in Germany and France, but also greatly in England and somewhat in this country. In the last quarter of a century especially, England has done good work in this department, spurred on by the rich discoveries in Babylonia; before that, it had done little, and in its linguistic position was regarded with contempt by the Germans, of which feeling there is an amusing exhibition in the little joust between Henry Ewald and the Cambridge professor, Samuel Lee, about forty years ago.

All along the line of history we can see the hampering effect of traditional opinions. At the present time there are many workers, capable of accomplishing much for science, whose work is unfruitful because not free. We need an unbiased spirit of investigation, careless of results, and only anxious to discover truth. Further, we need for our science a broad Semitic culture, wide study of all the dialects. It is unnecessary in this day to say that he who knows only one language does not know that. Those of us who have the time must not content ourselves with pursuing one dialect, though we may make a specialty of some one; but we must seek to get a firm hold on the grammatical structure of all or of all the principal dialects. In this way we shall the better acquire an enthusiasm for the purely linguistic side of the study, without which our hard-worked teachers and clergymen will not be able to keep it up.

The time allotted to this occasion allows only a short reference to the attractive questions that this department of linguistic science offers to the student. There are the problems of grammar, and especially of Semitic comparative grammar, pertaining to phonology, morphology, and syntax. There are many questions relating to the form and use of the verb especially, awaiting full investigation; for example, the formal origin and the signification of the perfect and the imperfect, the latter a point of great importance. Then there are comparisons with other groups of languages, and the determination of the relation between them and ours; for example, the so-called sub-Semitic languages and the Egyptian. Comparison is also to be made with the Indo-European family. It is only by observing the differences between these widely divergent groups that we can properly comprehend the character of the phenomena in each.

Another sort of work of which there is great need is the editing of manuscripts and printed books. The Hebrew and Syriac biblical texts have never been fixed with anything like precision, and, though the critical material is not as full and accurate as would be desirable, it is sufficient for the accomplishment of much more than has been done. Hundreds of Arabic and Syriac manuscripts lie in the East, waiting to contribute to our knowledge of the past in many directions. The field offered by the Phenician, Assyrian, and Sabean inscriptions is of enormous extent. The investigation of the history of the remote past is another department of labor, not purely linguistic, but inseparably connected with linguistic study, and finding abundant material in the field of Semitism.

Facts bearing on ancient migrations of Asiatic tribes have come of late in blinding numbers. The beginnings of history are being pushed back further and further, and new and perplexing problems are constantly arising. One of the most interesting of these questions is the nature and origin of the primitive Semitic mythology and the history of its welding with the religious systems of other races. At present, all these various systems are so completely fused together in the Babylonian, Syrian, and Phenician mythology that it seems impossible to separate them, and we must probably go to the South for light, and search the Arabian and Sabean traditions. From all these investigations we are beginning to understand something of the valuable traditions preserved in the early chapters of the Book of Genesis, possibly hints as to the earliest movements of the founders of civilization in Western Asia. All this (and I have mentioned only a part of what is to be done) demands an army of workers devoted to science, and the foundation of their work must be accurate linguistic training.

The Association adjourned to 9 o'clock Wednesday morning.

PHILADELPHIA, Wednesday, July 14, 1880.

MORNING SESSION.

The Association resumed its session at 9 A. M., the President, Professor Toy, in the chair.

The minutes of the previous meetings were read and approved.

The Secretary announced in the name of the Executive Committee, the election to membership of:

Mr. Samuel Garner, Johns Hopkins University, Baltimore; Mr. B. F. O'Connor, Johns Hopkins University, Baltimore.

On motion, Professor S. S. Haldeman, Dr. I. H. Hall, and Dr. Julius Sachs were appointed to nominate officers for the ensuing year.

On motion, Professor M. W. Humphreys, Professor W. D. Whitney, and Mr. C. J. Buckingham were appointed a committee to recommend a suitable time and place for the next meeting.

Professor W. D. Whitney, of Yale College, New Haven, read a paper on "Logical Consistency in Views of Language."

Professor Whitney began with noticing the regrettable discordance of opinion still prevailing among students of language, even with regard to fundamental theoretical points, respecting which all needed evidence is already in hand. The cause of this lies, he thought, to no small extent, in carelessness of logical consistency on the part of many comparative philologists; it would be in great measure removed by taking up the subject at the right end, and seeing that from certain obvious and undeniable

facts respecting language follow by logical necessity certain conclusions, which furnish a solid basis upon which to rear further doctrines. Without claiming to offer considerations not already adduced, he endeavored to present the general subject in such a logical connection.

One of the most palpable fundamental facts in human language is its diversity. Languages and dialects, unintelligible one to the other's speakers, are numberless, and their differences are endless, and of every degree and character. Thus, 1. their phonetic differences, as regards the number and nature of the alphabetic elements and the combinations of these, are great, notwithstanding a certain underlying resemblance, founded on the virtual identity of all human organs of speech; 2. their differences of grammatical structure, as regards parts of speech, forms of inflection and derivation, and syntactical combination, are yet greater, so that no acceptable morphological classification, even, has yet been found practicable; and 3. their significant differences, as regards the assignment of certain articulate combinations to the expression of certain conceptions, are greatest of all, correspondences being, where not historical (dialectic), sporadic and accidental only: it is even conceivable that two tongues should agree closely in alphabet and structure and yet give a different name to every single idea they expressed.

Another fact of highest consequence is that the varieties of language are not bound to varieties of race. Besides that there are no unmixed languages and no unmixed races, and that the two mixtures are not accordant, history shows numerous races or divisions of races that have come to speak tongues of foreign origin; every civilized community contains men of various descent undistinguished by speech; and no person of any race acquires its language without being placed among the speakers of the latter, or fails to acquire with readiness the tongue of any speakers, not of his own blood, among whom he may chance to grow up. In short, the direct relation of language is not to race at all, but to community. Every human being is capable of acquiring any human tongue, and only his circumstances prescribe which. That is to say, every one *learns* his language, his "mother-tongue," just as truly as any other which he may master later. Those who deny this are able to do so only by confounding the two, usual but very diverse, senses of the word "language"; which signifies now the complex of capacities that make a human being able to express his thought, and now the established signs of thought. The former is one and universal; the latter is various, and each variety is of limited use and intelligibility.

From these two elementary facts are derived necessary inferences as follows: The tie between a conception and its sign is external and accidental, a mental association, formed under the guidance and after the example of others. There is no room for the answer "φύσει" to the question how the names of things exist. Language is not thought, but an instrumentality auxiliary to thought.

Again, human language is fundamentally and entirely diverse from the means of communication of the lower animals, being a historical product, learned, indefinitely variable and extensible, while the latter is instinctive

and unchanging. The natural cries of animals are not comparable with speech, but with those natural means of human communication which preceded speech, and would be used by a man who had not learned speech.

Again, the study of language is purely a historical branch of science, and not a physical. Purely historical, because not even the sounds composing language are physical entities; they are human acts, just as much and in the same way as significant gestures are so.

The limited value of linguistic study as aid to ethnology lies solely in the probability that a linguistic community or complex of communities has been, from the beginning or for an indefinite period, a tolerably pure race-community also. Fortunately, this probability is on the whole greatest where the help of language is most needed.

Another obvious and fundamental fact concerning language is its constant change: change of phonetic form, of structure, and of the significant value of words and forms. In accordance with the principles already demonstrated, this change cannot be brought about by anything else than the action of men, the speakers of language. The general consideration governing their action is convenience, and it operates in every part and department of speech; in phonetics, convenience takes the form of economy of utterance.

The tracing out of these changes of language, with restoration of earlier, and, if possible, even of primitive forms, constitutes the historical study of language. Something of the work has been done for many families of speech, but by far the most for our own family, the Indo-European. And the result reached, according to the prevailing or Boppian school, is this: that all Indo-European forms are made by the accretion of elements originally independent; and that the ultimate elements are so-called roots: i. e. signs possessing no grammatical character, whether as parts of speech or as forms of derivation or inflection—whether all monosyllabic or of more varied phonetic character being a point of altogether minor consequence. This result comes simply from an application of the processes seen at work in all the historical periods of the language to explain the products of the pre-historic period — the only scientific method. Its argument may be stated thus: 1. through the whole known history of Indo-European speech, combinations of independent elements have been integrated into words and sometimes into forms; and examples of forms of every class and age appear plainly to have been so made; 2. no material of this sort is seen to have been made in any other way; 3. there are no forms met with which might not have been made in this way; and hence, 4. aggregation being thus demonstrably a real method of Indo-European form-making, and the only one possessing that character, and being adequate to the explanation of all the facts, it is sufficient and alone entitled to be accepted. Those who oppose this conclusion are wont to ignore the difference between analogical inference and mere conjecture, and to assume that one man's guess as to how forms might have been made is just as good as another's; or to urge the fact, worthless as evidence, that the majority of forms cannot be satisfactorily traced to the

independent elements out of which they have grown. That language should have begun with long words possessing any trace of structural organization is absolutely inadmissible on théoretic grounds; for it is an instrumentality, and an instrumentality cannot but have had rude and simple beginnings.

Moreover, the demonstration of such an origin and growth for the family of languages which has attained on the whole the highest grade of inflective structure is practically equivalent to their demonstration for all languages. It will take, at any rate, very strong and direct evidence to convince us that the history of any given family has not been essentially of the same character.

The question of the origin of language, as a scientific one, is simply to determine how such human beings, as we see and know would possess themselves of such an instrumentality if they received none by tradition from their predecessors, That they would do this is beyond question; the work of starting a language is not essentially different from that of adding to and altering language, as performed by every later generation. The problem is practically solved by our knowledge of language and its history, which teaches as follows: 1. Language was brought into being primarily for purposes of communication; 2. it began with whatever signs could best be turned to account for mutual understanding, grimace and gesture and exclamation and onomatopœia etc. being drawn upon according to their various availability, and the predominance of utterance being a gradual result of its superior usefulness, as learned by experience; 3. the first items of speech denoted that which was most capable of being directly signified, and hence acts and qualities, and not concrete existences; 4. the period of root-production was a self-limited one, because after a time the creation of new material would become less facile than the variation and combination of what was already in use; 5. to correlate precisely the history of speech with the rest of man's development will doubtless never be practicable. But, at any rate, language was the indispensable means of conversion of gregarious into social life, the foundation of all other social institutions. Every language is itself an institution, one of those whose gradual formation constitutes the culture of a race. A social institution is a body of habits, of customary modes of action, by which in a certain community is attained a certain social end, regarded as conducing to social welfare. It grows gradually up in the contest between human nature and human circumstances. Its real origin and relation to the kindred or similar institutions of other communities is not at all understood by its possessors; it is apt to be regarded as a part of the natural order of things, even of divine revelation. In none of these or other characteristics is a language more different from other institutions than they from one another.

The next paper was read by Rev. R. F. Weidner of Philadelphia, Pa., "On some Points connected with the Prophecy of Obadiah, with a revised Translation."

I. The author. Of the author of the shortest book in the O. T., we really know with certainty nothing except the name; and though, according to the Masoretes, the pronunciation is עֹבַדְיָה, i. e. servant of Jehovah, still about 300 years before Christ this pronunciation was not universal, as can be seen from the fact that the LXX. gives for it in the different places where the name occurs not only 'Οβδία, but also 'Αβδία, 'Αβδεία, and 'Αβαδία.

II. His date. Two theories with reference to the time of the prophecy are commonly held:

(1) That the prophecy was delivered after the destruction of Jerusalem by Nebuchadnezzar, i. e. after B. C. 588. This view is held by Aben Ezra, Luther, Calov, Michaelis, Schnurrer, De Wette, Bertheau, Knobel, Maurer, Winer, Hendewerk, Bleek, Meyrick, and others.

(2) That the prophet lived before 800 B. C. So Hofmann, Delitzsch, Keil, Kleinert, Wordsworth, Pusey, Hengstenberg, Caspari, Haevernick, and others.

We decide in favor of the latter view for the following reasons: *a.* because the position of the book of Obadiah in the Canon, between that of Amos and that of Jonah, demands it; *b.* because the style is more antiquated than that of the later prophets, which even Ewald is compelled to admit, though he uses it as an argument to show that both Obadiah and Jeremiah quoted an early lost prophecy; *c.* because it is distinctly called a חָזוֹן, a vision. It is not a mere rehearsing of a past event. The prophet speaks of that which had been heard by him from Jehovah; *d.* because of grammatical considerations, for the verbs after אַל (al) in vv. 12, 13, 14, must be taken to be future; *e.* because Obadiah does not refer in any way to the great monarchies of the world; they are simply strangers, and the two kingdoms are still supposed to stand firmly side by side. The discussion of the contents of the prophecy of Obadiah and its fulfillment in whole or part, is beyond our scope in the presentation of this paper.

This paper was discussed by Professor C. H. Toy.

President W. C. Cattell, of Lafayette College, Easton, Pa., read a paper on "The Etymologies of Lactantius."

After a somewhat extended discussion of the point in dispute between Cicero and Lactantius, whether *religio* was derived from religere or religare, the paper quoted and discussed more briefly all the etymologies found in the writings of this celebrated author, showing that he was generally in error as to derivations from Hebrew and so frequently as to Greek and Latin words that his etymologies, as the editors say of many of his theological opinions, are *cautè legendae.* But even where the derivation is wrong it was shown that the application to the subject Lactantius had in hand was apt and excellent. The paper concluded with a discussion of the real grounds upon which the reputation of the author rests, and which notwithstanding his mistakes in etymology give to his writings such permanent value.

Remarks were made upon this paper by Dr. E. G. Sihler.

Professor M. W. Humphreys, of Vanderbilt University, Nashville, Tenn., read a paper entitled "A Contribution to Infantile Linguistics."

This paper presented the results of observations made upon the linguistic efforts of a little girl during the first two years of her life. A striking peculiarity of the child was, that at a certain period she could pronounce the palatals (k, g), but not the linguals (t, d). The paper discussed briefly the causes which influence the selection of words on the part of infants, and gave a history of the linguistic development of the child in question, closing with the list of words, numbering 1122, of which she had command when she was just two years old.

Remarks were made upon this paper by Professor W. D. Whitney.

Professor S. S. Haldeman, of the University of Pennsylvania, Philadelphia, Pa., read a paper entitled "Note on the Invention of Words."

Singing birds hav a singing organisation, but monkeys, with organs much like those of man, lack a speaking brain and remain speechless. When very young, a child sings for pleasure, and before he has the use of words, will seize a rope on the deck of a ship and emit excited tones among those of the sailors, on occasions of excitement and activiti.

There is an opinion that children born without defect, in an island of deaf mutes, woud not acquire speech; but, on the contrari, it is probabl that, as gregarius animals, they woud begin to speak as soon as speech woud be found useful, and woud develop a language sufficient for their wants, as their social instincts woud make them gregarius and not solitari. If Chinese, they woud scarceli use *r*, or, if Cherokees, fall upon *b* or *p*.

Words invented by a child must be distinguisht from such as ar givn to it. 'Moo-cow' is not a child's word for a cow, but insted, the child whose first words are here recorded, used the simpl sound 'm;' a voiced scraping in the throat indicated a horse, a different scraping ment a duck —imitativs which were not translated into speech-words.

The ratl of the metl wheels of a toy cart was 'b-bh,' the *b* fulcral to start the essential *bh*—a vocaliti forced thru the lips, like German *w*. This became the word for a wheel, and for eni wheeld vehicl; and 'go b-bh' ment—to ride in a carriage, as 'go tshu-tshu' ment—to go by railway cars.

The voiceless form of b-bh (p-ph, π-ϕ) was suggested by the act and sound of smoking, and became the word for smoke, steam, clouds, and engravings of them. Afterwards, clouds in spheric masses were calld stones.

A bell was 'tin-tin'—a translation of the sound into speech, and suggestive of 'tintinate.' A railway engin was lookt at with the imitation 'tsh-tsh-tsh' (ofn accompanid by a rythmic motion of the hand) and this

became the speech-word 'tshu-tshu.' Of two toy engins one was his 'nice tshu-tshu;' to another he saw in a shop he addrest the words 'goodby. tshu-tshu' on leaving, and when this was sent to him in Demerâra some months later he recognised it and named it his 'goodby tshu-tshu.' His adjectives were 'nice' and 'bad,' 'big' and 'little,' and in the use of the latter pair he often used a coarse tone with 'big' and a fine one with 'little.'

Fond of throwing objects into water, he calld the sound of striking 'boom,' which was extended to mean throw, strike, fall, spill, without reference to the sound. Similarli, his form of the word spoon was applied par excellence to ice-cream, his favorit food taken with a spoon; and 'kernen' (colonel, the name he applied to his father) became the name of porridge, which was prepared for his father, and also of the kind of dish which contained it.

Perhaps because born in the tropics, he had no trouble with *cay* and *gay*, and he preferrd Italian *ah*, as in fân, lâmp, câtch.

This paper was discussed by Professor W. D. Whitney and Professor M. W. Humphreys.

Dr. Isaac H. Hall, of Philadelphia, Pa., read a paper on "The Declension of the Definite Article in the Cypriote Inscriptions."

The riddle of the Cypriote Inscriptions up to this time is not completely solved. Not to mention the particular knots which occur in sundry inscriptions whose purport is well known in the main, or those places where no final test has put a last word to discussion, there remain a few inscriptions whose general purport is a puzzle, some whose characters have not been made out, and some which, though every character is known, refuse to yield any intelligible combinations. Chief of these puzzles are:

(1.) The longest inscription in the Cesnola collection, which is in part quite plain, but which presents some unique difficulties; though there is scarcely a doubt about the reading of any character.

(2.) The "Naked (or Bearded) Archer" of the British Museum, which, in spite of Dr. W. Deecke's attempt published in *The Athenæum* of May 22, 1880, and thought by him to be a complete success, is yet unread; for Dr. Deecke's reading depends upon some arbitrary forcing of several characters to read what they demonstrably cannot.

(3.) One other important inscription in the British Museum is still the subject of discussion and doubt, though parts of it are plain.

(4.) One of the new, unpublished inscriptions in the Cesnola collection is still unread, though it will probably yield to perseverance; as its main difficulties appear to consist in determining the several characters.

(5.) The same is true of several minor inscriptions (unpublished) of the new Cesnola collection.

Thus any attempt to construct a vocabulary or grammar of the Cypriote inscriptions must be made subject to future revision or correction from the unwrought material; to say nothing of possible further discoveries.

In this paper the author used only such material as he himself had been able to see and study in the original, on the very stones, terra cottas, and

bronzes themselves. That, however, included all but perhaps three or four minor inscriptions out of nearly two hundred in all. In reaching the conclusions presented, the author also rejected every doubtful case. Yet these results are based upon about seven-eighths of the entire material—including the doubtful and the unread in the sum total.

The Cypriote syllabary consists of characters representing open syllables, i. e., syllables ending with a vowel. Of these, five represent the simple vowels, *a, e, i, o, u,* with no distinction between long and short. The others represent a single consonant followed by a vowel, with no distinction between smooth, middle, and rough in the mutes. Thus the same character may stand for κε, γε, χε, κη, γη, χη. As far as discovered, the syllabary is complete for the consonants *k, t, p, l, r, m, s;* that is, it has a character for each of these in combination with each of the five vowels. The *n* series lacks only *nu;* the *z* series lacks *zi, zo, zu;* and the syllable *ze* rests on one example only, and therefore on probable conjecture merely; the *y* or *i* syllables (for there is a consonant or *mobile `yod*) lacks the *io* and *iu,* perhaps as not required by the language. The digamma or *w*-syllables lack *wi* and *wu.* Thus the syllabary is in theory tolerably complete. There is one other character, read by Deecke, Siegismund, and the author, as *ze,* because, though thus an anomaly in the system (as double consonants are expressed by combinations of characters), it appears to have no other Greek equivalent. For what we may call another phase of the same reason, Dr. Ahrens takes it as embodying the old *sampi,* or the Hebrew *shin.*

In transliterating, the analogy of ordinary Greek writing is not to be disregarded. Yet in treating this writing as a language or dialect by itself, a procedure to which it seems fairly entitled, there is obviously much liberty or play allowable in the choice between a long or a short vowel. With all proper regard for dialectic peculiarities, it is not clear in every case how such choice is to be made. The transliterator often feels that the best fidelity to science almost compels a resort to the indefinite quantity of the Roman *e* and *o.*

As to further principles of the writing, it is only necessary to mention a few; the rest of those essential to our purpose are obvious. A word sometimes ends in the middle of a syllable; that is, its consonant is the end of one word, and its vowel the beginning of the next. This is commonest in the case of an elided proclitic. The *n,* or *ν* of ordinary Greek, is often not written, and has to be understood. Whether it was pronounced or not, is scarcely to our purpose here. A consonant is never doubled. Iota adscript (subscript) is sometimes written, and sometimes not. When a word ends with a consonant, its final syllable (unless joined with the word following) is regularly written with a character whose vowel is *e.* No note of breathings occurs.

Another element *perhaps* to be taken into account in transliteration is the apparent versification of some of the inscriptions. This can scarcely be a guide, and only rarely a check. This principle has been practically insisted on to an extravagant and absurd extent by Richard Neubauer, in one of the " *Commentationes Philologicæ in Honorem Theodori Mommseni* " (Berlin, 1877); but that treatise shows no masterly special knowledge of

the subject, and scarcely added a valuable hint to the stock of knowledge of Cypriote writing, while some of its mistakes are unpardonable.

The facts concerning the declension of the definite article in the writing were given in detail by Dr. Hall, taking each inscription by itself, and discussing each occurrence of the article as it came. Then followed a separate grouping of all the instances according to grammatical form, by cases, genders, and numbers, the result being that the article showed a pure Doric declension. In the course of the discussion, the article appeared to have usurped, in one or two places, the function of the relative pronoun ὅς, though strictly keeping the *form* of the article. The following is the scheme of the declension as actually occurring; no fair instance appearing of the neuter singular nominative, or genitive; of the dative plural feminine; nor of the nominative, genitive, or dative plural neuter; nor of the dual, in any case:

	SINGULAR.			PLURAL.		
	Masculine.	Feminine.	Neuter.	Masc.	Fem.	Neut.
N.	ὁ	ἁ	—	οἱ	αἱ	—
G.	τῶ	τᾶς	—	τῶν	τᾶν, τῶν	—
D.	τοῖ, τῷ	ταῖ, τᾷ	τοῖ, τῷ	τοῖς	—	—
A.	τόν	τάν	τό	τός, τώς	τάς	τά.

To this it is to be added that the two forms here given for the dative singular and the accusative masc. plural, are simply alternative transliterations of the same manner of writing. Also the ι adscript or subscript is frequently omitted from the dative singular; but that is merely a variation in writing, as is shown in the tabulated discussion (here omitted), and not a real variation in form.

Remarks were made upon this paper by Professor M. W. Humphreys.

Rev. R. F. Weidner, of Philadelphia, Pa., read a paper "On the Study of the Bible."

Above all other men, the clergyman ought to study the Bible as a philologist. We live in an age of knowledge, and it must in justice be added, in spite of occasional superficiality, an age of widely diffused learning, and if in the present day clergymen wish to be abreast of the scientific progress made in Semitic studies, they must find time for study, and having found the time, limit the extent and concentrate the scope of their studies.

In my remarks I will only refer to three tools which the clergyman should learn to handle intelligently and skillfully.

I. The English Bible. As a rule, clergymen do not pay sufficient attention to the daily study of the authorized version of the Bible. I am strongly persuaded, that except in the case of the most advanced scholars, much more may be learned from the habitual, frequent, and copious reading of the Scriptures in the English version, than from the laborious perusal of them in an unfamiliar tongue.

In the present day, when an intelligent knowledge of the text of the

Scriptures is widely spread, it is particularly necessary to beware of quoting a text *on any critical point* without knowing whether the original will bear the interpretation which the English may seem to suggest. Invaluable assistance in this respect has recently been placed at our disposal by the "Various Renderings and Readings Bible," edited by Messrs. Cheyne, Driver, Clarke, and Goodwin, published by Eyre & Spottiswoode, London, which gives in the form of foot-notes all the variations of any consequence in text or meaning, which have been recognized by the authoritative scholars of the ages.

After three years of daily use, I would select this volume as the best edition of the English Bible, philologically, that any scholar can possess. And what I have said of this edition of the English Bible applies with the same force to the matchless German of Luther's Version, with its Various Renderings and Readings, as edited by Stier and Theile in their Polyglot edition of the Bible, a copy of which ought to be in every scholar's library.

II. The Greek Testament. It is scarcely necessary for me to say, that whatever our hearers may do with translations, ministers at least should read the N. T. in the original, critically and with ease.

No one can expound the Scriptures with authority when he draws his knowledge at second-hand from the commentators, and a student is never safe in the hands of any commentator. The saying of Erasmus often comes to mind: "When I first read the Greek N. T. with fear and a good mind, with a purpose to understand it and obey it, I found it very useful and very pleasant; but when afterwards I fell on reading the vast differences of commentators, then I understood it less than I did before—then indeed I began not to understand it." The systematic exegetical study of the Greek N. T. is indispensable to "the full proof of the ministry."

The best edition of the Greek Testament is that edited by Scrivener, published in the Cambridge Series of Greek and Latin Texts.

III. The Hebrew Bible. I need not prove to this learned body that it is absolutely necessary for the well-educated clergyman to understand Hebrew. I wish all ministers, throughout the length and breadth of our land, would come to the same conclusion. What a brushing away of cobwebs and a raising of dust would there then be in hundreds of parsonages. We have no right to say that the study of the original languages of Scripture is old and dry.

Simple as these stray thoughts may be, I have ventured to present them, because their importance has been deeply impressed upon me by my own limited experience. Almost as strong a plea could have been made for the study of the cognate Oriental languages, for we hold that to understand the Old Testament rightly, the student must have mastered the language not only in its classical form, but also in those cognate dialects which so frequently illustrate both the thought and idiom of the Old Testament. He must know not merely classical Hebrew, but also Chaldee, Syriac, Arabic, and the composite tongue which is the language of Jewish tradition and Jewish exegesis. The study of the Bible, prosecuted in some such manner as I have indicated, is indispensable for a true interpretation of it.

The President communicated to the Association an invitation received from the Mercantile Library Company, tendering to the members of the Association the use of its rooms and library.

President W. C. Cattell presented an invitation addressed to the members of the Association, by the Penn Club of Philadelphia, asking their presence at a reception, to be given them this evening at nine o'clock.

On motion, it was resolved that the invitation be accepted, and this evening's session be omitted.

The committee to nominate officers for the year 1880–81, presented nominations as follows:

For *President*—Professor Lewis R. Packard, Yale College, New Haven, Conn.

For *Vice-Presidents*—Professor Frederic D. Allen, Harvard University, Cambridge, Mass.; Professor Milton W. Humphreys, Vanderbilt University, Nashville, Tenn.

For *Secretary and Curator*—Professor Charles R. Lanman, Harvard University, Cambridge, Mass.

For *Treasurer*—Charles J. Buckingham, Esq., Poughkeepsie, N. Y.

For additional members of the *Executive Committee*—

President William C. Cattell, Lafayette College, Easton, Pa.

Professor Basil L. Gildersleeve. Johns Hopkins University. Baltimore, Md.

Professor William W. Goodwin, Harvard University, Cambridge, Mass.

Dr. J. Hammond Trumbull. Hartford, Conn.

Professor William D. Whitney, Yale College, New Haven, Conn.

The report was accepted, and the persons therein named were declared elected to the offices to which they were respectively nominated.

The Association then took a recess until 4 o'clock.

PHILADELPHIA, Wednesday, July 14, 1880.

AFTERNOON SESSION.

The Association resumed its session at 4 P. M.

The minutes of the morning session were read and approved.

The Secretary announced the election to membership of:

Mr. Ashley D. Hurt, Principal of the Male High School, Louisville, Ky.

The President announced the appointment of Professor F. Stengel, as a member of the Auditing Committee, in place of Dr. Howard Crosby, who had left the city.

Mr. Charles P. G. Scott, of Columbia College, New York City, read a paper "On the Use of the Anglo-Saxon Particles in the Laws of Alfred."

The paper gave a summary of the results of an examination of the uses of all the prepositions, conjunctions, and adverbs (except derivative adverbs of manner) contained in the Laws of Alfred, as given by Schmid (*Die Gesetze der Angelsachsen. Zweite Auflage. Leipzig*, 1858), the examination being based on Schmid's ground-text from the MS. E, and embracing all his various readings from three other MSS., and selected readings from the first two printed texts (*Lambard, A. D.* 1574, *Wheloc*, 1644). Each word was separately discussed. All its various forms were given, its different uses illustrated by examples, and compared with its English derivative or substitute, and the times of its occurrence stated. The following is a list of the words discussed, with the number of times they severally occur. Variant forms are not included in the list. The spelling is normalized:

ADVERBS OF PLACE.

hêron	1	ûfor	1	ûtan	1
þǽr	14	uppe (uppe on)	1	ûte	1
hwǽr	2	ofer	1	of	3
nâhwǽr	1	forð	1	ætsamne	1
bûfan	1	inne	6	ætgædere	1
up	3	ût	5	tôgædere	1

ADVERBS OF TIME.

nû	2	eft	6	â	2
þonne	2	siððan	5	æfre	1
geô (iû)	2	oft	1	næfre	3
ǽr	13	git	1	symle	1

ADVERBS OF MANNER.

hû	1	þûs	1	elles	2
swâ	12				

ADVERBS OF DEGREE.

full	1	ealles	2	tô	1	mâ	1

ADVERBS OF NEGATION.

ne	82	nâ	2	nô (= nâ)	6

PREPOSITIONS.

in	14	of	13	ofer	7
on	104	tô	103	under	2
binnan	1	for	10	beneoðan	3
bûtan	11	fore	5	þurh	3
æt	17	beforan	14	geond	3
bî	1	ǽr	5	mid	74
be	67	æfter	4	wið	12
fram	6	bûfan	1	ymb	4

CONJUNCTIONS.

and	224	gif	218	þonne	58
ge	4	bûtan	9	þæt	53
eâc	12	swâ	34	þe	3
odde	47	swilce	3	ǽr þamþe	2
âwder	1	þeâh	4	be þam þe	3
ǽr	1	hwædere	1	for þam þe	5
ôd	1	siddan	4	for þam	4
ne	15	þâ	12	tô þam þe	1
ac	4	þenden	1	þâ hwîle þe	1

Dr. Isaac H. Hall, of Philadelphia, Pa., exhibited a photograph of a stone, found in Muskingum County, Ohio, and inscribed with letters alleged to be similar to the Cypriote.

Remarks were made upon this subject by Professor S. S. Haldeman, Professor M. W. Humphreys, and Professor W. D. Whitney.

Professor M. W. Humphreys then read a paper, by Professor L. R. Packard, of Yale College, New Haven, Conn., on ·"The Beginnings of a Written Literature in Greece."

The subject was introduced by some comments on an article by Professor F. A. Paley, in *Fraser's Magazine* (March, 1880), in which he maintains that the use of writing to multiply copies of books cannot be shown to have been common in Greece before 400 B. C. His arguments to prove this—that there are no proper words in Greek, as there are in Latin, for the ideas *to read* and *to write*, that there are no references in the writers of the Periklean age to the works of their predecessors, that Thukydides in his sketch of the early history of Greece is obliged to rest for his facts on "inferences, memory, and hearsay"—were criticised. His supposition, that the works of the early historians and philosophers were orally communicated to their pupils, and not put into written form until long after the death of the original authors, was shown to be untenable in view of the style and probable purpose of those works as seen in the preserved fragments. A series of passages was then quoted from which it appeared that the use of writing was evidently familiar before 460 B. C., and that frequent references to books occur between 425 and 400 B. C. Some of the references imply the collection of a library and the exportation of books. The principal passages quoted were, Pind. Ol. XI, 1 f., Aesch. Supp. 946 f., Hdt. 5: 58, Arist. Frogs 943, 1113 f., Thuk. 1: 97, Xen. Mem. I, 6, 14, IV, 2, 1, Anab. VII, 5, 14. A number of passages from Plato were added to show how common books were, and on what various subjects, between 400 and 360 B. C. They were as follows: Apol. 26 D, Phaed. 97 C, 98 B, Symp. 177 B, Gorg. 462 B, 518 B, Protag. 325 E, Phaedr. 228 D, 230 D, 273 A, 276 C, Theaet. 152 A, 162 A, 166 C, Soph. 232 D, Polit. 293 A, Parm. 128 D.

Professor F. A. March, of Lafayette College, Easton, Pa., pre-
sented a paper on "The Dictionary of the English Philological
Society," which was read by Dr. Cattell.

Dhe Historical Eŋglish Dictionary ev the Philological Soçjety haz made
good progres dûring the last yéar.   Dhis iz the twenty-secund yéar ov
wurk in colecting matèrialz, but the first yéar ov Dr. Murray's editorship
under the arangement for its imèdiate publication bį the Ụniversity ov
Oxford.   Dhe first volûme containing *A* iz to be publisht in 1882; it iz now
redy to *Al.*   About 500 wurkerz in Eŋgland hav undertaken to rèad books
and copy quotationz.   In America ther ar 150 wurkerz, who hav under-
taken 1,008 volûmez, the wurk ov 333 aufhorz.   American rèaderz ar askt
to take American authorz, and British authorz ov the 18th Çentûry.   Fifty-
fįvẹ ev thoze taken ar British, the rest American.   Pennsylvania haz the
most rèaderz (25), New York 18, Massachusetts 17, Connecticut and Illinois
10 èach: New Jersey and Maryland 8 èach; Miçhigan and California 6;
New Hampshire and Indiana 5 èach; Ohįo, Wisconsin, Delaware, Kansas,
and Kentucky 3 èach; uther states 1 èach; and ther ar 2 American rèaderz
in Japan, 2 in Canadu, 1 in Italy.

About 580,000 printed slips to copy quotationz upon hav béen sent out,
285,000 hav béen returnd fild up, 100,000 more ar nèarly redy, and the
whole return wil probably be nèarly half a milion.   Ther wer from former
yéarz about two tunz ev slips on hand.   Dhe editorz begin to think they
·hav a suplį for the wurdz ev general literatûre, tho ther ar stil meny
famous books which ought to be red.

Rèaderz ar now most nèeded for trèatisez in sçienç, art, comerç,
navigation, etc., and espeçialy for books in which termz from Darwinizm
and kindred modez ev thought ar ûzed.   American rèaderz ar now askt
to take up wurkz ev this kįnd, or curent pèriodicalz, az wel az to go on
with the older literatûre.   Çircûlarz ar now sent out asking information
about particûlar wurdz whoze slips prove insufiçient.   Dr. Murray also
wants a duzen more sub-editorz.   Volunteerz ar askt to send the tįtlz ov
books they ar wilíng to undertake to Professor March, at Easton, Pa.

A paper by Professor W. F. Allen, of the University of Wis-
consin, Madison, Wis., on "The Battle of Mons Graupius," was
read by Dr. E. G. Sihler.

The account of the battle of Mons Graupius, in the 35th, 36th, and 37th
chapters of Tacitus' Agricola, is the most difficult passage in this work,
and has never been satisfactorily elucidated.   The account is itself obscure,
and the text is in several places corrupt and even unintelligible.

The name, by an error of the early editions, usually appears as *Grampius:*
but this name finds no support, either in manuscripts or in Scotch geography.
The name *Grampian Hills* is a modern appellation, derived from this
erroneous reading; and it is obvious, from the context, that the battle
took place near the sea, no doubt somewhere upon the coast of Fifeshire.

The 35th chapter contains an account of the disposition of the troops,

and presents no difficulty, except in the phrase *covinnarius eques*, which is interpreted by most recent editors as meaning that the war-chariots were a form of cavalry. The expressions used by Cæsar (B. G. IV. 24, 33; V. 13) plainly distinguish the two, and it is better, with the earlier editions, to insert *et*. This will make the account of the battle, in the next chapter, much more intelligible. It should be observed that Agricola's front line was composed exclusively of auxiliaries, and it will appear that these alone took part in the battle; his legions of Roman troops were held in reserve throughout. The Britons were on a hill-side, with their front in the plain.

The course of the battle was favorable to the Romans at every stage, and they never received any serious check. Nevertheless there were four distinct crises. First, in the skirmishing *eminus*, it was soon seen that the Britons could not be repulsed; Agricola therefore sent in some auxiliary cohorts, and turned the engagement into a hand-to-hand fight, *cominus*. The Britons in the plain were at once routed, and in their flight the cavalry joined, while the war-chariots prolonged the contest by uniting with the infantry upon the slope of the hill.

The last half of the 36th chapter, beginning *Interim equitum turmae*, presents serious difficulties. Most recent editions consider these *turmae* to have been Roman, and, as the Roman cavalry certainly was not put to flight, they insert *ut* before *fugere*, thus making the flight refer to the war-chariots; they further refer the check, *haerebant*, to the Romans, and, consistently with this idea, change *equestres* to *aequa nostris* in order to indicate that the battle had thus far gone against the Romans. This is proved not to be the case by the fact that at the beginning of the next chapter the Romans are referred to as *vincentium*. It is better, therefore, as above, to consider the *equitum turmae* to have been the Britons: to make *haerebant* agree with *covinnarii*; and to consider the rest of the chapter a description of the confused half-cavalry action that ensued. The reading of the corrupt phrase *diu aut stante* is easily corrected to *clivo astantes ;* here Halm's reading, *astantes*, is better (referring to the Britons) than Kritz', *instantes* (referring to the Romans). This was the second crisis, when the war-chariots joined with the infantry of their countrymen, and for a moment caused *recentem terrorem*. The third is the attempt of the Britons to take the victorious Romans in the rear, at the beginning of the 37th chapter: and the fourth, when the Britons made their last effort, and brought the pursuing Romans to a stand in a piece of woods. Even here Agricola did not find it necessary to bring up his legionary soldiers, but overcame the resistance with the aid of some auxiliary cohorts which had until now been kept in reserve.

The committee on the time and place of meeting recommended that the next session be held at Cleveland, Ohio, Tuesday, July 12, 1881, at 3 P.M., but left the matter open and subject to modification by the Executive Committee.

On motion, the report was adopted.

The Secretary announced, on behalf of the Executive Committee, the election to membership of:

Professor Franklin Taylor, High School, Philadelphia, Pa.

The auditing committee reported that the accounts of the Treasurer had been compared with the vouchers and found correct. The report was accepted.

The Association then adjourned to Thursday morning, the evening session being omitted to enable the members to attend the reception given by the Penn Club.

PHILADELPHIA, Thursday, July 15, 1880.

MORNING SESSION.

The Association resumed its session at 9 A. M.

The minutes of the last session were read and approved.

The Secretary announced that the Executive Committee had elected as members of the Association:

Professor James S. Blackwell, University of Missouri, Columbia, Mo.; Professor A. F. Fleet, University of Missouri, Columbia, Mo.

Professor C. H. Toy, of Harvard University, Cambridge, Mass., read a paper on "The Hebrew Termination *un* as a Means of Determining Date."

Of old forms in Hebrew that are of interest in the study of general Semitic grammar, those which offer the richest material for historical investigation are certain verb-forms in *n*, namely the third person plural of the Perfect, and the third and second persons masculin plural of the Imperfect in *un*, and the second singular feminin of the Imperfect in *in*. Of these the forms of the Perfect and the Imperfect singular are rare; we may for our purpose treat all together, making special mention, where necessary, of one or another. They occur somewhat over 300 times in the Old Testament, being found in all the books except Leviticus, Obadiah, Jonah, Haggai, Song of Songs, Lamentations, Ecclesiastes, Esther, Daniel (Hebrew), Ezra (Hebrew), Nehemiah, and First Chronicles. What is the history of their use? In the first place, they are pure Hebrew —there is no grammatical objection to their Hebrew character, and they are not here the result of foreign influence. As to their grammatical character, comparison of all accessible Semitic dialects leads to the conclusion that the primitiv terminations were *una* and *ina;* these are retained only in Arabic, while in Aramaic they hav become *un* and *in,* in Assyrian largely, in Hebrew generally, and in Ethiopic always, *u* and *i.* Some difficulty, indeed, arises from the fact that, on the supposition (from various considerations, altogether probabl) that the plural termination is really a noun-termination, we should expect it in Hebrew to agree with the noun, and sound *um* instead of *un;* but, both here and in the *in* we do not know the origin and relation of the *m* and *n*, and cannot allow this

apparent discordance to set aside the plain results of comparison of the
forms in the various dialects. These terminations, then, may be Hebrew,
and moreover, must be. The only foreign influence to which they could
be referred is the Aramaic, and for this they are both too early and not late
enough—that is they occur in passages that preceded any linguistic
influence of Aramaic on Hebrew, and do not occur in the late books that
exhibit the most marked Aramaizing tendencies. When precisely the
Aramaic began to affect the Hebrew it is hard to say, but the traces of its
influence do not begin to appear in the literature that has survived till
about the time of the Babylonian Exile, after which they become more
and more frequent down to the third or second century B. C. But
these terminations appear in quite early passages, such as the old law-book
in Ex. xx–xxiii, and they are absent from the late, Aramaizing books of
Esther, Ecclesiastes and others. In the next place, they represent the
classical Hebrew of the times in which they appear. They are not local
or dialectic, for example. They are naturally more frequent in the southern
than in the northern writings (if indeed we can now distinguish these),
since the former comprise the body of the Old Testament; but they are
employed freely by the northern prophets, and were doubtless familiar all
over the land. Nor can their use be considered as a conscious employment
of an obsolete archaism for the purpose of giving an antique coloring to
a passage or book. Such an imitation of antiquity was not in the manner
of the Hebrew writers. The author of Chronicles, in attempting to
describe the pre-exilian history of the nation after the later Levitical
model, writes in the Aramaized Hebrew of his day, and freely modernizes
words that were no longer in use; the author of Ecclesiastes writes in the
name of Solomon, but in the dialect of his own time. When we find
these terminations, we may conclude that they were natural to the
authors who use them, tho they may not always hav been current in the
popular speech.

The facts of the usage are these: In the prose books there is a gradual
diminution of frequency of occurrence from the old parts of Exodus
down to Chronicles and Daniel. Ruth (dating probably from the exile),
presents an apparent exception, containing *un* and *in* each thrice; but they
are found in speeches, probably of old material. Another exception
occurs in Exodus and Deuteronomy, which stand (with the exception of
Joel), first in frequency. Genesis and Numbers hav relatively few
occurrences; Leviticus none. In the prophets the periods of most frequent
occurrence are those of I. Zachariah and Micah, about B. C. 720, and of
Nahum and Zephaniah, about B. C. 640; Joel (date uncertain) stands first;
the number is small after the exile, and fewest of all in Jeremiah and
Ezekiel. Of the five poetical books, Song of Songs and Lamentations
have none, Proverbs very few, Job a large number, evenly distributed over
the book, Psalms not so many as Job, more than one-fourth of all the
cases occurring in one post-exilian psalm, the civ. It appears from these
facts that the terminations in question are obsolescent, but not obsolete in
the Old Testament. They are most frequent in the oldest prose, and in
the latest are almost entirely wanting. In later times they were employed

either in passages derived from antiquity, or in elevated and impressiv style, as in parts of Exodus, throughout Deuteronomy, in the second Isaiah, and in some of the psalms, especially Ps. civ. Beyond this the conditions determining their use are not clear. Sometimes they coincide with the present emphatic accents, sometimes not; often the particular use seems arbitrary, and we do not know how far the text has been modified by pre-masoretic editors. Their occurrence cannot be used alone as a means of determining the date of a writing; the older passages, in which they are frequent, are so mingled with later passages that other tests hav to be applied in order to determin where the older part begins and ends.

A paper by Prof. A. C. Merriam, of Columbia College, New York City, N. Y., on "An Experiment in Reading Greek at Sight with Volunteer Classes in College," was read by President Cattell.

This paper was an account of an experiment carried on for the last three years, described not because it was unique in itself, though something new to the writer at its inception, but because the details might prove of interest, if not of profit, to educators.

The class of 1881 of Columbia College was observed to be so much interested in reading the Odyssey, as Freshmen, that a favorable opportunity seemed to be presented for putting to the test several questions of a practical bearing; whether, for instance, there was any inclination among the students towards a wider study of Greek than the prescribed course of three hours a week, and if so, how great; what would be the effect of reading extensively, mainly for the translation, as compared with the painstaking work done in class, or as superadded to it; how great a facility in reading Homer could be acquired in this way by the end of the collegiate year, etc. In Columbia College the exercises are all completed at one o'clock, and the students depart to their homes till the following day. Accordingly the announcement was made to the class that if some half dozen or more would volunteer for the reading of Homer from one to two in the afternoon twice a week, the experiment should be tried. On their part they were to undertake to do what their time would permit towards making out the translation of 100 lines for each reading, but the instructor expected to act the part not only of commentator, but also, in a degree, of a dictionary. The class assembled for the first reading directly after the Christmas holidays, with twenty-four members from the Freshman class, and five from the Sophomore. Twelve of this number withdrew within the first four weeks, for various reasons. The average attendance of the remaining seventeen to the end of the collegiate year was sixty-one per cent. The plan pursued in the work was to give each student a short passage to translate, and this was then carefully rendered by the instructor and commented on. The translations made by the class were found to be much better than was expected or contemplated; in fact, they were almost as good as the regular class recitations, and some who withdrew towards the close of year, advanced the reason that they could not continue to devote the time to it which such careful work required, and their scholarly pride

would not suffer them to make an insufficient preparation. The great majority, however, were unflagging in their zeal, and for the last month or more, at their own option and suggestion, the readings were increased to 125 lines at each sitting. The entire amount read was some 3250 lines. On the last day of meeting, the test of reading at sight was applied, and the result showed that such proficiency had been acquired that any part of the Odyssey could be read with considerable fluency. In addition to this, their regular work in class appeared to be strengthened, and to be given a wider grasp, as would be naturally expected.

These results of the first and tentative period answered the questions which the enterprise was originated to solve, with such good promise, that its continuance for another year seemed to be demanded, in order to determine what could be done with the same students, beginning upon the foundation which they had now acquired, and reaching out into less familiar and more difficult fields.

In consequence, the class was formed on the first of November of the following year, and was composed of fifteen Sophomores and Juniors, mainly those who had pursued the course during the preceding year. It was believed that now, with the vocabularies which they had acquired, and the experience which they had had, the work could be made one purely of reading at sight. The result justified the belief. An especial request was made that no preparation be undertaken beforehand, not only that the experiment of reading at sight might be tested, but that the feeling so prevalent that a Greek sentence is a fortress to be stormed only when the student is arrayed in all the panoply of lexicon, commentary, and grammar, might gradually wear away and disappear. The meaning of unfamiliar words was not given them outright, but they were traced back to their roots, which in general the student was familiar with, and then by the application of the rules for suffixes the sense would be evolved along such connecting links as would bring into play the laws of growth in language, and leave the word connected in the mind with some idea already there, and so more securely domiciled for future use. In this way the class was able to read the first book of the Cyropaedia and a part of the second, the Clouds of Aristophanes, all of Anacreon and the Anacreontics, and extracts from Alcman, Sappho, Alcaeus, Stesichorus, Ibycus, and Simonides of Ceos.

For obvious reasons it seemed quite inexpedient to join with this advanced class such of the incoming Freshmen as desired to pursue this course; a separate class was therefore formed early in December, composed entirely of Freshmen, and the same system as before in reading the Odyssey was pursued, previous preparation being required, and manfully performed through the year by ten members who devoted themselves to the task. Towards the close of the season, however, it became mainly a reading at sight, and 175 to 200 lines would be sometimes accomplished in the hour. Altogether, 4000 lines of the Odyssey were read.

During the collegiate year just closed, the undertaking was carried on with larger classes and a better average attendance. Both classes were started at the opening of exercises in October. The advanced class was

composed of Seniors, Juniors, and Sophomores.   The Egyptian history of Herodotus was read, and a practical acquaintance was formed with more than forty of the famous poets of the Gnomic and Lyric Schools, all being read at sight upon the same plan as before.

The class just entered was requested to prepare its 100 lines of the Odyssey, but it was made a point now to finish that in time to devote one quarter of the hour to reading beyond the limit prescribed, so as to become accustomed to the work without preparation.   This produced results so satisfactory that, when half the year was past, it was deemed expedient to drop preparation altogether, a course justified by the success attending it. This class read twelve and a half books of the Odyssey, about 6000 lines all told.

On the last days of April an examination of both classes was held in writing, to determine definitely in that way the facility they had acquired in reading, without any assistance, the authors upon which they had been engaged.   Writing was limited to one hour, and the amount to be translated was so selected that it could be fairly done within that time, without opportunity for much puzzling over knotty phrases.   The passages were taken from the authors read, but not from the parts read, the advanced class being examined on Herodotus I 36, Theognis 743–752, and the 33d Anacreontic; the other, on Odyssey I 345–359, IV 696–710, and IX 360–370.   The papers handed in were examined and marked with the strictness of an ordinary class-examination, upon a basis of 100 maximum, with results varying from ninety-eight to eighty in the advanced class, and from ninety-six to seventy-four in the other.   On the whole, the sense of the passages was fairly given, the main difficulty arising from ignorance of single words, which were either new, or were confounded with others quite similar in form; this confusion of words being quite noticeable and curious, but chiefly in the first year's class.

This experience and this practical exhibit were declared to have converted the experimenter to a belief that "reading at sight" in Greek that is not over difficult and abstract, is feasible, and in fact is actually attained by the methods here described.   They will scarcely make one capable of reading with fluency the Odes of Pindar, the Agamemnon of Aeschylus, or the Periclean speeches of Thucydides; but a royal demesne of the most delightful Greek literature flings its doors wide to the student, courting his entrance, and welcoming him when he comes to a seat at a hospitable board, instead of presenting that forbidding aspect and those formidable battlements commonly imagined, which must needs be stormed and taken at the point of the sword if approached at all.   A taste for the literature is thus created as the difficulties vanish, marauding expeditions may gradually be made into the closed precincts, and finally, when the student graduates he may carry with him a continual refutation of that question which we hear on all sides, so benumbing because so often all too true, "What is the use of studying Greek, when the college graduate, after six or seven years' work upon it, cannot take up a Greek text he may not previously have read, and turn it into English?"

The writer then proceeded to quote some passages from President

Porter's "American Colleges and the American Public," a work to which his attention had just been called, and which he had never had the good fortune to meet with before. Here he found advocated for adoption in regular class work, after the Freshman year, quite the same methods he had been practicing with his volunteer classes, and urged in words which his experience had proved both wise and practicable. President Porter sounds the warning that we are as much in danger of "too high grammar" in our teaching as the English are of "too high verse-making," and recommends the experiment of wide reading in comparatively easy authors, with the attention directed mainly to the import of the matter. Such a suggestion from such a source was believed to lend an additional interest to the writer's independent experiment.

Remarks were made upon this paper by Dr. E. G. Sihler, and Professor M. W. Humphreys.

Dr. E. G. Sihler, of New York City, N. Y., read a paper on "Vergil and Plato."

Dr. Sihler showed the dependence of the sixth book of Vergil's Aeneid upon the eleventh book of the Odyssey, and called attention to the passages wherein Vergil departs from his older model. The analogy between Vergilian and Greek speculation was pointed out. It was suggested that the dependence upon Plato was more and more distinct as the lines of this episode went on.

As for the purpose of this parabasis in the economy of Vergil's epic, Dr. Sihler thought that Vergil sought herein a convenient *literary shift*, to advance his narrative from the dawn of Aenean legend into the noon-day of Roman glory and empire; and that the metempsychosis of Plato and the presentation of souls with the type of their character and career fully expressed—awaiting a new incarnation—was a contrivance which suited the aim of the learned Vergil very well.

In respect to the sincerity and earnestness of philosophical and semi-religious belief, the speaker dissented from Seller and Nettleship, in considering the episode of Aeneid VI. merely as a matter of erudition. This view seems probable when we take into account the erudition of the day and the learned element in the compositions of the Augustan poets.

Remarks were made upon this paper by Professor M. W. Humphreys.

On motion, it was

Resolved, That the thanks of the Association are hereby tendered to the officers and members of the American Philosophical Society for the use of their rooms and their attentions during the meeting, to the officers of the Mercantile Library and Franklin Institute for the kind invitations received from them, and to the Penn Club for the reception given to the Association in their rooms.

On motion, the Association then adjourned.

CHARLES J. BUCKINGHAM, *Treasurer, in account with the* AMERICAN PHILOLOGICAL ASSOCIATION,
July 14, 1879 – July 13, 1880.

DR.		CR.	
Balance in Treasury, July 14, 1879, . . .	$341.25	Printing Transactions and other work, . . .	$215.00
Fees and assessments since received, . . .	377.00	Advertising in American Catalogue, . . .	32.50
Interest, . . .	24.50	Expenses of the late Secretary, . . .	50.00
		" " session in Newport. . . .	10.00
		" " Secretary, . . .	14.85
		" " Treasurer, . . .	4.85
		Printing, . . .	2.00
		Balance in Treasury, . . .	414.05
	$742.75		$742.75

E. E.   CHARLES J. BUCKINGHAM, *Treasurer.*

There is also in the hands of the Treasurer, one Bond of the Connecticut Western Railroad for Five Hundred Dollars, with seven over-due, and unpaid coupons.

C. J. B.

Having examined the above accounts, and compared them with the vouchers, we certify the same to be correct. We have also personally examined the Bond of the Connecticut Western Railroad, with seven over-due and unpaid coupons.

(Signed)   FRED. STENGEL, } *Auditing Committee.*
              W. C. CATTELL, }

PHILADELPHIA, PA., July 13, 1880.

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1880–81.

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Extract from the Constitution.

ARTICLE IV.—MEMBERS.

1. Any lover of philological studies may become a member of the Association by a vote of the Executive Committee and the payment of five dollars as initiation fee, which initiation fee shall be considered the first regular annual fee.

2. There shall be an annual fee of five dollars from each member, failure in payment of which for two years shall *ipso facto* cause the membership to cease.

3. Any person may become a life-member of the Association by the payment of fifty dollars to its treasury, and by vote of the Executive Committee.

The Transactions for 1869 *and* 1870 form volume I.
" " " 1871 form volume II.
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Notice to the Members of the American Philological Association.

1. It is exceedingly desirable that the Secretary be notified of all changes of address in order that the annual list be kept correct.

2. Requests or orders for the publications of the Society should be sent to the *Secretary*.

3. All remittances of fees should be made to the *Treasurer*, and as soon after the July meeting as possible.

The Executive Committee herewith announce that the Thirteenth Annual Session of the Association will be held at Cleveland, Ohio, beginning Tuesday, July 12, 1881, at 3 o'clock P. M.

Members intending to read papers at the next session of the Association are requested to notify the Secretary at as early a date as possible.

The address of the Secretary is: Charles R. Lanman, Cambridge, Mass.

The address of the Treasurer is: Charles J. Buckingham, Poughkeepsie, New York.

TRANSACTIONS

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AMERICAN PHILOLOGICAL ASSOCIATION.

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CONTENTS OF VOL. XII.

I. — *On Mixture in Language.*

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A few years ago (1876), there appeared in England a volume (8vo. pp. viii., 126) on Mixed Languages, by a Mr. Clough, who calls it a " prize essay," though without betraying who should have awarded it a prize. It takes for its text a quotation from M. Müller, to this effect : " In the course of these considerations, we had to lay down two axioms, to which we shall frequently have to appeal in the progress of our investigations. The first declares grammar to be the most essential element, and therefore the ground of classification in all languages which have produced a definite grammatical articulation ; the second denies the possibility of a mixed language." (Lectures, 1st series, 6th edition, p. 86.) Mr. Clough's work is meant to be a refutation of this doctrine of Müller's ; and he enters upon his task thus :

" Certain philologists have stated that a mixed language is an impossibility, but the truth of the axiom may well be doubted ; indeed, as it would, perhaps, be impossible to find any modern language which contains no foreign elements, it is evident that the principles involved in the question are fundamental.

" Language consists of three parts — sounds, words, and grammar ; and a mixture in any one of these points produces a mixed language."

Mr. Clough, it will be seen, absolutely declines to take his stand upon the same point of view with Mr. Müller, and therefrom to criticise, and if possible prove unfounded, the latter's statements; he will look only on his own side of the shield. For Müller, in the next paragraph to that quoted as above by his opponent, goes on to say: "There is hardly a language which in one sense may not be called a mixed language. No nation or tribe was ever so completely isolated as not to admit the importation of a certain number of foreign words. In some instances these imported words have changed the whole native aspect of the language, and have even acquired a majority over the native element." And, a page or two later: "There is, perhaps, no language so full of words evidently derived from the most distant sources as English." Only he adds, still further on (p. 89): "Languages, however, though mixed in their dictionary, can never be mixed in their grammar." Müller's view, then, plainly admits of being laid down in this form: 1. There is a certain part of every language, namely its grammar, which appears to be inaccessible to mixture; 2. In virtue of this fact, a mixed language is an impossibility; 3. Hence, the unmixableness of language is an axiom of linguistic science. Mr. Clough should have set before him the doctrine in some such form as the above, and then have addressed himself in an orderly manner to its refutation. Instead of so doing, he goes laboriously onward, gathering evidences of mixture, according to his definition of the term, which do not at all touch his antagonist; since the latter, acknowledging them all, nevertheless declares that they do not constitute mixture according to *his* definition of the term. Mr. Clough does not disengage the merely verbal question — whether any one has good and sufficient reason for denying the name of "mixed" to a language which may have imported so much foreign material as to have "its whole native aspect changed" thereby — from the real question, as to whether there are in fact any limits to mixture, and if so, what and why; and on this account, as well as by reason of his generally loose and credulous method, his work must be

admitted to contribute nothing of value to the elucidation of the subject.

That the subject, however, urgently calls for further elucidation, will hardly be denied. Thus, Lepsius, in the Introduction to his recent Nubian Grammar (p. lxxxv.), says : " It is at present an assumption usually made, that the vocabulary of one language may indeed to a great extent be transferred to another, but not its grammatical forms and their use. The linguistic history of Africa . . . shows this to be a prejudice ; " and he sets up a theory of the relations of African languages which seems to imply grammatical mixture on a very large scale. It is, indeed, this so sharp antithesis between the views of two highly considered authorities— the one stigmatizing as an assumption and a prejudice what the other lays down as an axiom — that has suggested the preparation of the present paper.

As regards, now, in the first place, the axiomatic character of any view that we may come to hold concerning the mixableness or unmixableness of language, the sooner such a claim is abandoned the better. The use of the term "axiom" is probably not to be seriously pressed against Mr. Müller. If not a mere slip of the pen (which it can hardly be, as he has let it stand in edition after edition since objection was raised against it), it is at any rate only one of those pieces of genial inaccuracy which, as he often pleads, he "has permitted himself." He means no more than that the doctrine under discussion seems so well established and is so generally accepted that it does not enter into his own mind to question it. He perhaps would designate it more deliberately as a fundamental principle, comparable not with "things equal to the same thing are equal to one another," but rather with, for instance, "the sum of the angles of a triangle equals two right angles." Even this, however, would be a great deal too much. It would imply that Müller, or some one else, had so grounded the unmixableness of grammar on the bottom facts of human nature and of the nature of language, had so demonstrated its inevitableness from the acknowledged laws of linguistic growth, that no well informed and sound-minded man could

have any inclination to doubt it. How far that is from being
so is shown by the circumstance that Lepsius unceremoni-
ously rejects it. No writer on geometry could throw over
the principle that the angles of a triangle equal two right
angles, and expect to command any attention for his reason-
ings. But Lepsius's theory of African language is received,
as it well deserves to be, with all respect, as one that calls
for the most careful examination, and may perhaps be found
to compel acceptance. It 'is interesting to see how Müller
himself handles his "axiom." After asserting, as quoted
above, that " languages can never be mixed in their grammar," ·
he immediately adds : " Hervas was told by missionaries that,
in the middle of the eighteenth century, the Araucans used
hardly a single word which was not Spanish, though they
preserved both the grammar and the syntax of their own
native speech." This, from its position and bearings, must
be meant as an example of the evidence of the doctrine : a
curious "axiom" that, certainly, which rests in part upon
what some missionaries told somebody: perhaps they did
not know ; or perhaps neither party realized the importance
and wide bearing of the point in question. Müller goes on
in the next paragraph : " This is the reason why grammar
is made the criterion of the relationship and the base of the
classification in almost all languages ; and it follows, there-
fore, as a matter of course, that in the classification and in
the science of language, it is impossible to admit the exist-
ence of a mixed idiom." These· statements seem neither
exact nor clear. The value of grammar as a criterion by no
means rests solely on its unmixableness ; nor does that value
furnish a reason for denying the possibility of mixture : to
assert this is simply to reason in a circle. There is no need,
however, of spending any more time upon the point. To set
up the unmixableness of grammar as an axiom is to provoke
and justify its rejection as a prejudiced assumption ; if it is
to be forced on us, without discussion and exposition, as
something intuitive, it may be discarded in like manner,
without refutation, by one to whose inner sense it does not
commend itself.

In opposition to Müller's view, it may be claimed, without any fear of successful contradiction, that what we hold and are justified in holding as to the mixture of languages is a pure scientific induction from the observed facts of mixed languages, dependent for its authority and its extensibility to further cases, on the one hand, upon the number and variety of the cases already observed, and, on the other hand, upon the degree of success with which the facts they present have been reasoned out and put in connection with the fundamental principles of language-using and language-making. That, in either of these essential respects, the subject has been fully worked up, no one would be justified in asserting; yet there is a considerable body of knowledge respecting it, enough to establish among students of language a prevalent doctrine, held with a fair degree of confidence, though also held open to modification by further evidence, or by the bringing-in of examples radically different from those thus far taken into account. What this doctrine is, what are its foundations, and what its limitations, a brief exposition may here help to show.

The general *rationale* of the process of borrowing out of one language into another is simple enough, and may be illustrated from any tongue. It rests, of course, with everything else in linguistic science, upon these fundamental principles: that spoken signs have nothing to do with conceptions except historically (that is, there is no internal, substantial, necessary tie between a given conception and a given sign for it); and that, consequently, a language has nothing to do except historically with a given race, but is, like any other element of acquired civilization, transmissible not only from generation to generation, but also, under favoring circumstances, from community to community, from race to race. The individual man is everywhere only seeking after a sign — not one existing φύσει, but one usable θέσει — by means of which he may communicate with his fellow-man respecting some object of common knowledge and conception; and he is always ready to take it where he finds it handiest. If, then, we learn of or introduce to our own use something new from

outside our borders, unnamed in our speech, we are likely
enough, instead of making a name for it out of our own re-
sources, to adopt along with it some more or less successful
imitation of its native name: it may be some concrete thing,
like *tobacco, tea, canoe, shawl, alcohol;* or something more ideal,
institutional, like *sabbath, jubilee, algebra, taboo, check* (and
check and *checker* and *exchequer* are a striking example of the
exuberant life which such a chance adoption may win), and so
on.   There needs only a knowledge on the part of the speak-
ers of one language of a designation used in another language
and then a sufficient inducement to its use by themselves also,
and they proceed to use it: nothing in the nature of language
stands in the way of such an appropriation; it is in strictest
accordance with the method by which every speaker has ac-
quired every expression he employs.   Hence, wherever two
tongues come in contact, each is liable to borrow something
from the other; and more or less, according to wholly inde-
terminable circumstances: the measure and nature of the
intercourse, the resources of the respective tongues, their
degree of facilitating kinship or structural accordance, and so
forth.   And there are (as was noticed above) few tongues in
the world which are not to this extent mixed.   The language
of a civilized people like our own, having intercourse with
nearly all the other peoples of the globe, and laying them all
under contribution to its comfort or entertainment or zeal for
knowledge, shows a wonderful variety of items of speech thus
borrowed.   The degree is different in different divisions of
our language: thus, the English of India has quite a vocabu-
lary of native Hindu terms which are either unknown or un-
familiar to us and to most of the English-speakers of Britain;
the same is true of the English of South Africa; and the
same is true, to a certain extent, of the English of America.

   This might be called the sporadic or fortuitous method of
borrowing.   It is, however, only the same process on a larger
scale that goes on when any community makes itself the
pupil of another in respect to any part of its civilization.
Where institutions, beliefs, ceremonies, arts, sciences, and the
like, pass from race to race, names cannot help going with

them. The leading examples of this which history offers are familiar to all, and need only be alluded to. The spread of Christianity over Europe carried with it a certain number of Hebrew words, from the dead tongue of the Old Testament; but a vastly greater number of Greek and Latin words, from the living tongue of the New Testament, and from those of the European peoples who propagated the new religion. And who propagated also a higher civilization along with it; the two are not to be separated from one another; it is their joint influence that made the Greek and Latin vocabularies mines from which all the languages of Europe should freely draw new resources of expression. The extension of Mohammedanism has made Arabic occupy a similar position in reference to the tongues of all Mohammedan peoples: greatly varied in detail, according to the variety of circumstances of each case, the combination of religious with general cultural instruction, and actual mixture of races. The relation of Chinese to Japanese and some other neighboring tongues is probably the next most striking example; then that of Sanskrit to the vernaculars of India in general; and as minor instances may be cited the influence of Swedish upon Finnish, and of German upon Hungarian. There is no definable limit to the amount of accessions that may be brought in this way into a language; but they can hardly fail to leave untouched its forms, and the central kernel of its vocabulary, its words of commonest use.

A somewhat different case is that in which there takes place a noteworthy mixture of peoples: that is, a mingling in the same larger or smaller community of persons of discordant inherited speech. But here, too, the special circumstances are infinitely varied, with corresponding variety in the linguistic result. The circumstance which most directly represents the disturbing cause is the comparative number of the one and of the other element of population in the mixed community; yet this appears practically to be of minor consequence only. The blood of a people may, for example, become prevailingly different from what it was, by a process of gradual mixture, such as is now bringing a never ending current of immigra-

tion to our American shores, with only a minimal effect on the original speech ; and, on the other hand, the great bulk of a community may give up its old tongue for that of a small intruded element, as in the case of the countries of southern Europe which were Romanized and in consequence Latinized : and between these two extremes lie numberless intermediates. We may say, in a general way, that the outcome of a mixture of population is of three kinds. First, under the government of peculiar isolating conditions, the elements of the mixed population maintain each its own linguistic independency, with perhaps no more mixture of speech than takes place between separate communities : as is the case, on a large scale, under Moslem domination in the border-lands of Turkish, Armenian, Persian, Syriac, and Arabic speech, where almost every individual is bilingual, speaking his own inherited dialect along with that of a neighbor, or with the general official language added ; while another curious example is said to have been furnished at a certain period by the discordant speech of the Carib warriors and their captured wives. Secondly, as in the case of the Latinized countries of southern Europe, referred to above, and in numerous others, the language of one division of the mixed community becomes, almost without mixture, the language of the whole. We can trace in a measure, but only in a measure, the particular influences, with their mode of action, that have brought about such a result as this; much about them is obscure and surprising. Thirdly, there arises a notably mixed language, containing abundant elements derived from both the one and the other of the tongues whose speakers were brought together to form the community.

This last case is evidently the only one with which we have to concern ourselves here ; and of it a very conspicuous example is our own English. There is no known mixed language of developed structure and of high cultivation in which the process of mixture has gone further. The two composing elements were, so far as one could have estimated them in advance, of nearly equal force ; which of them would win the upper hand might have appeared doubtful — as, indeed, it

long did appear doubtful. We may expect to find English, then, a normal illustration of the processes of language-mixture. It ought to be the instance most thoroughly studied and best understood in all its parts; for the original ingredients of the mixture are perfectly known, being both recorded in earlier literatures ; and the steps of combination are set forth all along in contemporary documents. It is, perhaps, better understood than any other similar case in language-history ; yet that is far from implying that it is fully mastered, or that opinions are not still at variance respecting matters of prime importance connected with it : thus, for example, as to how much of the decay and loss of former Germanic structure in English is due to the mixture ; as to whether the process has or has not extended to the grammar of the language ; as to the effect of foreign influence on the structure and arrangement of the English sentence ; and so on. The subject still calls for skilful and wary investigation, in order to be comprehended in its details ; but some of the main results for the general theory of language-mixture may perhaps already with sufficient certainty be gathered off the surface of the phenomena it exhibits.

The first and most important of these is, that the case is not, after all, essentially different from those already noticed. We have still one language, namely the Anglo-Saxon or native English, borrowing and incorporating crude material from the other, the intrusive Norman French. Of a meeting of the two ingredients on equal terms, and their amalgamation in any part, either of grammar or of vocabulary, the one contributing an element and the other another element of the same kind, there is no sign whatever. This appears most clearly in the system of inflection : not a trace of Romanic conjugation or declension shows itself in the new mixed speech ; the imported verbs and nouns are assimilated entirely to those of the borrowing tongue, being varied in form with whatever apparatus the latter has still left. But it appears also in the system of derivation : such suffixes and prefixes as native English retained in actual living use for the making of new words, it proceeded to apply to the borrowed material ; and

the derivatives so made are no more to be accounted as of
"mixed" character than are the inflectional forms with Ro-
manic stems and Germanic endings. And the same thing
is to be seen not less clearly in the stock of words: here, too,
whatever is more formal or structural in character remains
in that degree free from the intrusion of foreign material.
Thus, of the parts of speech, the pronouns and articles, the
prepositions and conjunctions, continue to be purely Ger-
manic; and, in the more general vocabulary, the same is
true of the numerals. In brief, the borrowing is of the
grosser elements of speech, of raw material, to be worked
into proper syntactical shape for direct use by the word-
making processes of the borrower. The exemption of "gram-
mar" from mixture is no isolated fact; the grammatical
apparatus merely resists intrusion most successfully, in virtue
of its being the least material and the most formal part of
the language. In a scale of constantly increasing difficulty
it occupies the extreme place.

Now what is thus true of English is believed to be es-
sentially true also of every other observed case of language-
mixture. Such a thing as the adoption on the part of one
tongue, by a direct process, of any part or parts of the formal
structure of another tongue has, so far as is known, not come
under the notice of linguistic students during the recorded
periods of language-history. So far as these are concerned,
it appears to be everywhere the case that when the speakers
of two languages, A and B, are brought together into one
community, there takes place no amalgamation of their speech,
into A B; but for a time the two maintain their own several
identity, only as modified each by the admission of material
from the other in accordance with the ordinary laws of mix-
ture: we may call them A^b and B^a; and finally, one of these
two prevails over the other, and becomes the speech of the
whole community: this is still either A^b or B^a, and not A B.

This, then, is at least a general principle, derived by legit-
imate deduction from a considerable number and variety of
cases. Into an absolute law of universal language, however,
it can be converted only by a successful analysis of the psy-

chological processes involved, and a demonstration that in no conceivable case could their action lead to a different result. And until that work is accomplished, we shall doubtless meet now and then with the claim that such and such a case presents peculiar conditions which separate it from the general class, and that some remote and difficult problem in language-history is to be solved by admitting promiscuous mixture. Any one advancing such a claim, however, does it at his peril; the burden of proof is upon him to show what the peculiar conditions might have been, and how they should have acted to produce the exceptional result; he will be challenged to bring forward some historically authenticated case of analogous results; and his solution, if not rejected altogether, will be looked upon with doubt and misgiving until he shall have complied with these reasonable requirements.

It also seems a fair and obvious inference that the more discordant the structure of the borrowing language and the language borrowed from, the less will be the chance that any items of structure should be transferred from the one to the other. As between two nearly related dialects of the same tongue, the possibility of transfer would be greatest; the slight existing differences might be with least difficulty disregarded. French and English, though ultimately related, and corresponding with one another in all the main features of structure, were yet, as we have seen, sufficiently held apart by their difference in details to prevent structural mixture — just as effectively, indeed, as Arabic and Persian, or Turkish and Arabic or Persian, where the discordance is much profounder. If we dispute, therefore, the validity of an *à priori* claim that a prefix-language and a suffix-language — as, for example, a South African and a Hamitic tongue — might mingle in a manner seen to be impracticable in the case of two Indo-European dialects, we do not at all set up unmixableness of grammar as a self-evident truth ; we are only refusing to admit the more difficult of two processes until the less difficult shall be proved possible.

It appears, then, that in Müller's alleged "axiom" there is

perhaps (until. the contrary be shown) so much legitimately
deduced truth as this : that two languages never meet and
mingle their grammar. on equal terms. But in the form in
which he puts it, that "languages can never be mixed in their
grammar," it must be refused acceptance ; for grammatical
mixture by a secondary process actually does take place, and
its effects are clearly to be seen in English — as we may next
proceed to notice.

Whenever crude material of foreign origin is introduced by
borrowing into the full vernacular use of a language, it be-
comes an integral part. of that language, undistinguished, ex-
cept to reflective and learned study, from the native material.
It enters, for example, into the mind of no ordinary English
speaker to recognize some of his words as coming from a
Romanic source and others from a Germanic.   To him, the
relation of *pure* and *purity* and of *envy* and *envious* is the
same with that of *good* and *goodness* and of *child* and *childish.*
But he has in everyday use so many words plainly made
from others by the added endings *ness* and *ish* that those
endings are distinctly before his mind as by their addition
impressing certain modifications of meaning ; and he there-
fore goes on to make with them, by analogy, new words like
those already in his use.   It needs, then, only that he have
taken in pairs enough like *pure, purity*, and *envy, envious*, and
he will in the same manner and for the same reason make
new words with *ity* and *ous* — heedless, because ignorant,
whether the primitives to which he applies those endings are
Romanic or Germanic by origin.   Such new words are made,
to be sure, more freely and abundantly from Romanic primi-
tives, both because the analogies are in themselves closer
and more suggestive, and because the making is in part by
the learned, who know and are mindful of the proprieties of
combination, and whose influence is cast against the admis-
sion and retention of what they deem improper combinations ;
and hence we have, of words not French, but made of French
elements on our own soil, *duty* beside *beauty*, and *duteous* and
beauteous beside *envious*, and so on in abundance.   But we
have also not a few like *oddity* and *murderous*, made with

Romanic formatives from Germanic primitives : well known examples showing other affixes are *atonement, eatable, talkative, disbelief, retake, derail.* Such cases are in part isolated ones, too sporadic and fortuitous to prove much respecting the character of the tongue in which they occur ; but in part also they are specimens of classes, and unmistakable evidences that the resources of formation of a Romanic tongue have been adopted by a Germanic tongue and made its own resources of formation likewise. Perhaps the most notable of their class are the trio *ize, ist, ism,* which have become real living English formative elements, used with constantly increasing freedom in making new words, and for popular as well as for learned use.

No language of which this can be said has the right to claim that it has successfully maintained against mixture the purity of its grammar. For there is no good reason whatever for limiting (as Müller, in order to save his "axiom" from being proved untrue even as a fact, seems inclined to do) the name of grammar to the inflective apparatus of a language; it belongs equally to the derivative apparatus. There is no line to be drawn between the added elements that make a person or tense or number, and those that make a degree of comparison, or an ordinal, or an adverb, or a noun or adjective. Moreover, it is not inconceivable that a foreign mode of inflection should get itself introduced into a language, after the same fashion as a foreign mode of word-making. We have received into English some classical singulars and plurals together — such as *phenomenon* and *phenomena, stratum* and *strata ;* and there is no necessary reason, none inherent in the nature of things, why these cases might not be numerous enough to prompt an extension by analogy to new formations. Doubtless this is more difficult, and less likely to occur, than the extension of use of derivative endings ; but so is the latter more difficult and less likely than the taking in of new words ; and if the one difficulty has actually been overcome by the pressure of circumstances, the other can by sufficient pressure be in like manner overcome.

While, therefore, we find no warrant in the historically

authenticated facts of language for admitting a mixture of the grammar of two languages by a first process, we see clearly that any language having a developing structure may become mixed in grammar secondarily, by processes of growth involving the use of borrowed material. In whatever department there is growth, thither the foreign elements can penetrate. This appears equally in those parts of the vocabulary which are most akin with grammatical structure. Form-words are no more taken in directly than are formative parts of words ; yet there is hardly a class of such in English that has not come to allow intrusion from the French. It is part of the living growth of English expression to make prepositions and conjunctions out of other material — nouns and adjectives and adverbs; and hence we have Latin stuff in so common an adverb-preposition as *around*, and, still more strikingly, in *because*, one of the commonest and most indispensable of our subordinating conjunctions. No force of which we have knowledge could have brought an adverb of degree — for example, *très* in its older form — straight out of French use into English ; but its present equivalent, *very*, is a pure French word ; and the equally French word *real* is in vulgar use undergoing a precisely similar reduction to the same value (in "that's *real* good," and the like). Into the very citadel of that most exclusive class of words, the numerals, has been intruded the Romanic ordinal *second;* and the use of an indefinite pronoun, *one* (in " *one* must not believe all *one* hears," and the like), appears at least to rest in considerable measure on the French phrases with *on*, by a half-blundering literary imitation. And these are but specimens of a considerable class of similar facts.

It must not fail to be noticed that the structural elements thus taken into our language from a foreign source are only such as are analogous with others already in use among us : suffixes, having the same office with Germanic suffixes, form-words corresponding in their value with those of native origin ; and so on. This follows, indeed, from the method of analogy with existing formations by which, as already explained, the new elements are brought in. There is nothing in English

borrowing to give any support to the doctrine that one tongue
can learn from another a grammatical distinction, or a mode of
its expression, formerly unknown : for instance, the preposi-
tional construction of nouns, period-building with help of
conjunctions, formation by affix of comparatives or abstracts
or adverbs, or of tenses or numbers or persons. Whether,
however, the possibility of this, or of any part of it, is to be
rejected altogether, under all circumstances, is another ques-
tion, to which we may well be slow to return a categorical
answer. To take a simple illustration or two : ought we to
suppose that a tongue having no diminutives could take in
from another words enough like *lamb* and *lambkin, brook* and
brooklet, goose and *gosling,* to have this distinction of degree
so impressed and taught as to lead to its independent use?
or that something of a "sense for gender" could be caught
from borrowed couplets like *prince* and *princess, tiger* and
tigress? Or, again, is it conceivable that there may have been
a period in the history of Chinese when the borrowing of
plainly agglutinated words was able to quicken the Chinese
itself into the adoption of agglutinative processes? While
perhaps unwilling to say either yes or no, until after a more
complete collection and better comprehension of the phenom-
ena of universal mixture, we may at any rate assert that no
unquestionable instances of such results from the cause in
question have yet been brought to notice, and that their oc-
currence would appear to stand at the very summit of the scale
of difficulty. A necessary part of this whole investigation is
the determination of a general scale of comparative ease or
difficulty for immediate borrowing, and for the indirect effects
of borrowing; upon which might follow in any given case the
ascertainment of how far its degrees had been surmounted,
and under the pressure of what special circumstances. By
universal consent, what is most easily transferred from one
tongue to another is a noun ; the name of a thing is language-
material in its most exportable form. Even an adjective, an
attributive word, has a more marked tinge of formal character,
and is less manageable ; and a verb, a predicative word, still
more : this part of speech is, in fact, to no small extent wanting

in human languages. In English borrowing, to be sure, it has been comparatively easy to add adjectives and verbs to nouns, because of the direct convertibility of our nouns into adjectives (a *gold* watch, a *leather* medal, etc.), and of our nouns and adjectives into verbs (to *tree* a raccoon, to *grass* a plot of ground, to *brown* a complexion, to *lower* a price, etc.), without any change of form ; but under different circumstances the degree of difficulty may be quite other ; and we see the Persian, for example, receive no Arabic verb, but always add an auxiliary of native growth to an Arabic adjective or noun, in order to make a *quasi*-Arabic verbal expression. Next to the verb, among parts of speech, would come the adverb, with the yet more formal prepositions and conjunctions, and the pronouns ; and, not far from these, the formative elements proper, the prefixes and suffixes, first of derivation and then of inflection ; and last of all, the fundamental features of grammatical distinction. Respecting all these, it is extremely questionable whether they ever pass from tongue to tongue by a direct process ; and no transfer of the last of them, even by a secondary process, has ever yet been demonstrated.

As to the effect which mixture may have on the yet less material parts of a language, as the order of its words and its modes of construction, we cannot speak with too much caution. Here is where real results are hardest to analyze and trace to their causes, and where claims lightly and thoughtlessly made are least easy to disprove. Of claims thus made, the study of language affords an abundance. There are those who seem to hold that a language is, as it were, always watching its neighbors, ready to imitate whatever in them it sees to be worthy of imitation. If, for example, the Persian uses an *i* to connect a noun with its qualifying adjective, the construction must be modelled on a Semitic one ; if the Rumanian or Scandinavian has a suffixed article, its suggestion came from Turkish or Finnish speech ; and so on.[1]

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[1] Striking illustrations of this are to be found in Edkins's "China's Place in Philology" (a model of nearly everything that is unsound in language-study). Thus, speaking of gender, it says : "this characteristic of the Sanskrit, Greek, and Latin tongues has been derived from the influence of the earlier Semitic

Such explanations betray an absolute and utter failure to comprehend the way in which languages live and grow, and are able to influence one another. The users of language in general are neither grammarians nor comparative philologists; they cannot describe the usages of their own tongue; they are wholly unaware of and supremely indifferent to the usages of another tongue, even of one with which they have some practical acquaintance. That analysis and comparison which should point out differences and suggest imitation is the work only of reflective study. A prefix-language, for example, might live in contact with a suffix-language forever without finding out the latter's character, and without adopting a single item of its methods — until, perchance, it should have borrowed suffix-words enough to create in its own usage an analogy which it might proceed in entire unconsciousness to follow. Where there is learned cultivation, deliberate investigation of language and imitation of literature, the case is of course somewhat changed; here there may take place a conscious and artificial borrowing, or imitation, which will remain on the whole confined to the learned class and to learned styles, although something of it may perhaps filter through by degrees into popular usage. In this way, for example, Latin and Greek have had a certain influence on the literary usages of various European languages, and French has affected English and possibly German; but how small is the amount! and how little of it, if anything, has reached the phraseology of common life!

If we would realize the baselessness of the assumption of syntactical imitation, we have only to consider an actual case or two of the kind, in its bearing on ourselves. The French has a trick (it may fairly be called so) of putting the object of a verb, provided it be a pronoun, before the verb, instead of after it, as is the case with a noun-object: now can any one conceive of the English or the German as catching that trick,

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type " (p. 101). Further: "the Greek seems to be specially founded on the Chinese in regard to tones" (p. 359); "the syntax of the European languages is a mixture: it contains Chinese, Semitic, and Turanian principles " (p. 358) — with much more of the same sort.

notwithstanding the geographical contact on either hand, and
all the knowledge and admiration of French style that accom-
panies it? Again, the German has striking peculiarities as
regards the position of its verbs, putting an infinitive or par-
ticiple at the end of a clause, though at the cost of remote
separation from the auxiliary which it ought to accompany,
and also setting the personal verb itself at the end of the
clause, far from its subject, provided the clause be a depend-
ent one; and these peculiarities, less marked at an earlier
stage of the language, were establishing themselves more
firmly at the very time when German was, as it were,
groaning under the oppressive influence of French, to the
structure of whose sentences both were alike repugnant;
and here, again, any one may be defied to imagine a process
by which English or French should be led to copy the
German arrangement. Yet such a result would be vastly
more easily attained than the production by imitation of
a suffixed article.

A sample point, one of those not infrequently brought up
in connection with this subject of the influence of one lan-
guage on another, is the place of the genitive (so-called) with
reference to the noun qualified by it, as either preceding or
following that noun: thus, in Latin, *patris filius* or *filius
patris;* in German, *des Mannes Sohn* or *Sohn des Mannes;*
or, in uninflected juxtaposition, whether in a given language
'a ring for the finger' is *finger ring* or *ring finger;* the vary-
ing arrangement in related tongues is wont to be referred to
mixture as cause. But there are a multitude of special ques-
tions involved here, which would have to be settled before we
assumed to decide any particular case. Is there any such
thing, in the first place, as a natural order for two nouns
standing in such a relation to one another? It would seem,
rather, to be a matter of indifference until the formation of a
habit of speech accepting the one order in preference to the
other; at the outset, the natural relation of the two objects
named would be a sufficient guide to what was meant by
naming them together: thus, for example, as between *house*
and *top*, the latter is so obviously the thing belonging to the

other that ' top of a house' is, in default of a linguistic usage to the contrary, equally signifiable by *house top* and by *top house.* Then, what is the relation of genitive-position in a given tongue to adjective-position, to the order of compounded words (if such are formed), and to the other usual modes of arrangement? Further, has a genitive its distinctive and sufficient sign, independent of position ; and if so, of what origin is the sign, and what influence has that origin contributed to the determination of usual position ? How obligatory is the law of position ? Is there any difference in the treatment of genitives of different kinds : of those used more attributively and those used more appositively, of the possessive genitive and the partitive, of the subjective and the objective, of a short genitive and a long one, of the genitive of a common and of a proper noun, of the genitive of a noun and of a pronoun — and so on ? Finally, are any changes of habit in any of these respects to be traced during the historical period of the language in question, provided there be such a period ? All these matters fall so fully into the category of established usages, gradually fixed and gradually modifiable by causes arising within the language itself, that an extremely careful and far-reaching investigation would appear to be called for before we decide what value should be attributed in any given case to the place of the genitive, or whether it should be regarded as of any value at all in the history of the language, in the way of indicating either relationship or mixture.

Another syntactical point which has been brought into the discussion of mixture is the order of the essential elements of the sentence — the subject, the verb, and the modifiers of the latter, especially its object. Lepsius, in his Introduction already quoted (p. lxxxiii.), speaks of it thus : " Of essential consequence in two languages which are to come to a mutual understanding *(die sich verständigen sollen)* is the same order of words. If, therefore, this is different in the two, the one must give way and the other prevail. In the negro languages everywhere, the verb stood originally in the simple sentence between subject and object. This position is maintained in

most of the mixed languages [i. e. in the languages of the great central zone of Africa, which Lepsius holds to have taken shape by mixture of South-African and Hamitic elements], with exception of the most eastern ones . . . where, evidently under Hamitic influence, it is given up and replaced by the Hamitic order [namely, with the verb at the end]."

In the expression here used, of two languages "coming to a mutual understanding," as in some of those employed by the same author in other places, is implied a theory of mixture quite different from that which, as explained above, is suggested by all the best-understood historical examples of mixture. He compares it (p. lxxxii.) with what "still happens every day, when two individuals of different tongue are thrown together and obliged to understand one another:" all grammar, namely, is laid aside, or represented only by gesture and grimace, and the names of things and of the commonest acts, in a mutilated form, are adopted in common use. Now something like this is undoubtedly the case when the two individuals have a chance meeting, or when they fall in with one another only from time to time; but not at all, if they come to live together (like Robinson and Friday): in that case, it will inevitably be found after a while that one of them has learned to understand and use the language of the other; they will speak the same tongue, indeed, but it will be no mixed jargon; it will be substantially the original language of one of the two individuals, somewhat modified (but not mixed) in its grammar, and with more or less of material brought in from the other language. That is to say: the result will be precisely accordant with that which, as was seen above, has been found normally to follow when two communities mix: not A B, but either A^b or B^a. The one party, after a certain period of fluctuation and struggle, abandons its own tongue and puts in its place the strange tongue which it has learned. When members of two communities, each of which maintains its own speech for its own purposes, meet occasionally for special ends, there can grow up a jargon for their joint use, like the "pigeon English" of the counting-houses of China; but no such barbarous result has ever been

shown to come from that more intimate association which
makes a family or a community; and until such an instance
is found, no one has a right to assume that two grammatical
systems, or two vocabularies, can meet and mingle on equal
terms. The resistance of one of the two parties to accepting
frankly and fully the speech-usages of the other is practically
less in every instance than their joint resistance to a mixture
of usages. And when one — be he individual or community
— learns a new language, he learns not its individual signs
only, but also its phraseology, its inflections, its syntax, the
order of its words: these are all part and parcel of the same
process. That the new speakers may show a degree of ten-
dency, while their speech is still a broken one, to cast the new
material into their own familiar order, need not be denied; but
it is in the highest degree improbable that their errors in this
respect should have any traceable influence on the usages of
the rest of the community: after subsisting for a while as
errors, they will disappear. The language which proves
strong enough to impose itself on those to whom it is not
native will have no noticeable difficulty in making them ac-
cept its own order of arrangement.

On the whole, we are justified in refusing for the present
to admit the power of mixture to change the order of words
in a language, except in the same secondary and subordinate
way in which the formative apparatus may come to be changed
in consequence of mixture: namely, by contributing to the
forces which are slowly and almost insensibly determining
the growth of a language an element which may finally work
itself out into visible consequences. If the French can have
come to violate the primeval law of Indo-European position [1]
so far as to put its adjectives prevailingly after the nouns
they qualify; if the German can establish so peculiar rules
of place for some of its sentence-elements by internal de-
velopment, against the example and influence (assuming that
it be proper to speak of such) of all the languages about it,
related and unrelated — then it must be very dangerous to
charge upon foreign influence a difference of arrangement

[1] See Delbrück's *Syntaktische Forschungen*, iii. 35.

which any tongue in any part of the world may exhibit as compared with its relations.

These, it seems to me, are the conclusions respecting mixture to which we are led by a consideration of the facts thus far brought to light. What is needed in order further to advance our comprehension of the subject is, first of all, a new and more penetrating examination of the facts themselves, with a distinct eye to the general principles that are in question. Nothing could be a better introduction to this than an exhaustive study of the English as a mixed language (for nothing deserving such a name has ever yet been made) ; to which would be added a like study of the other notable historical cases : and thus the way would be prepared for a thorough discussion of the philosophy of mixture. But it is altogether probable that the result would only be to establish on a firmer basis the principles provisionally stated above, and to cut off all possibility of the assumption, for any stage or period in the history of language, of a mingling in the same tongue of diverse structural elements, forms or formwords, otherwise than by the same secondary process, of growth involving borrowed and assimilated material, which we see to have brought Romanic ingredients into the grammatical structure of English words and sentences.

II. — *The Home of the Primitive Semitic Race.*

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THE linguistic sense of the word "Semitic" is well fixed; it includes all languages of the type of the Arabic, — that is, Babylonian-Assyrian, Aramaic, Phenician-Canaanitish, Arabic, Sabean, and Geez, or Ethiopic. Its ethnological sense is not so generally agreed on. While most writers use it of all the peoples who spoke or speak the languages above named, by some it is restricted to those who are mentioned in the table of nations in the tenth chapter of Genesis as descended from

Shem, the son of Noah. This difference of signification, however, amounts to little or nothing in an inquiry into the original home of the Semitic race. The list given in the table of nations includes most of the peoples whose language is Semitic, namely, the Assyrians, the Arameans, the Hebrews, and the Arabians ; if the original abode of these could be discovered, we may be sure that it would include all Semites. Of the nations omitted in the table, the Babylonians would certainly go along with the Assyrians ; and the Phenicians, Canaanites, Philistines, and Moabites (if they were Semites) could not be separated from the Hebrews ; nor the Sabeans and the Geez from the Arabians. On the other hand it may fairly be assumed that the regions Elam and Lud, assigned to Shem in the table, but later occupied by Indo-Europeans (though the geographical position of Lud is doubtful), were once peopled by a race who spoke a Semitic tongue, and were not different in blood from their Babylonian and Aramean neighbors. If a region could be found once inhabited by the primitive people from whom came the Assyrians, the Arameans, the Hebrews, and the Arabs, that would be accepted as a satisfactory solution of the question as to the cradle of the Semitic race. I shall use the term Semitic here in the wider ethnological sense, to include all the peoples who spoke Semitic tongues, and only these ; but, for the reason just given, those who prefer the definition of the table of nations can so understand the word without materially affecting the arguments that will be considered. The determination of the original dwelling-place of one of the great races is of course a matter of no little importance for the early history of man. We have lately seen how much light has been thrown on the civilization of the Hebrews by the definite fixing of their Babylonian or Mesopotamian origin ; but we are still embarrassed by the uncertainty as to the point from which the Phenicians came. If we knew the starting-points of the Egyptians, the Semites, the Indo-Europeans, the Turanians, and the Chinese, we should have made a long step backward toward the beginning of our history. These wide problems have something specially attractive in them, and

have received their due share of attention. The number and
diversity of the theories are in some cases in proportion to
the number and complicated character of the data, in other
cases in proportion to their fewness. In respect to the primi-
tive home of Egyptians, Turanians, and Chinese there is room
for a good deal of arbitrary hypothesis and fancy, because
neither the linguistic, nor the ethnological, nor the historical
relations of those families have been satisfactorily worked out.
Even in the case of the comparatively well known Indo-
European family, almost every separate language of which
has been carefully studied, and where comparisons and infer-
ences are guarded by strict scientific rules, the theories of
geographical origin have ranged over a good part of Asia and
Europe. Semitic scholars also have not failed to contribute
their share towards the solution of the general problem. The
conditions in this case cannot be considered specially un-
favorable. The territory occupied by the Semitic family is
inconsiderable in extent. The race has never pushed far
beyond its early historical borders, except in the case of the
Geez and in very modern conquests in the time of Islam ; and
these movements have not been attended with any marked
linguistic or other changes. The various dialects have been
studied with thoroughness (with the exception of the Baby-
lonian-Assyrian, in which the chief interest has up to this
time been historical and literary), and the era of grammatical
research is just beginning ; the literary material is abundant,
and the historical records are not exceeded in distinctness
and antiquity by those of any people in the world, unless it
be the Egyptian. The problem of the original Semitic home
is not, therefore, comparatively difficult, and might seem at
first to be even very easy. That it is not, however, free from
difficulty appears from the number of different solutions of it
that have been given. In truth, at the outset, when we recol-
lect the gray antiquity to which the primitive Semitic mother-
race must go back, and the great changes that may have taken
place between its first breaking-up and the beginning of
historical times, it is evident that great caution is necessary
in attempting to reconstruct a period that lies so far away from

us and the conditions known to us. Even in the limited geographical and linguistic sphere of the Semites, the data are sufficiently diverse and obscure to cause no small perplexity. Different investigators have reached different results as they have fixed their attention on different sets of facts, and we have a separate theory embodying each separate aspect of the phenomena. It may be worth while to inquire what definite conclusions, if any, have been gained by these investigations up to the present time. Even if no one of them is quite satisfactory, it is possible that each may have contributed something towards the solution of the problem, either by introducing some new material, or by excluding untrustworthy matter, or by fixing more definitely the canons of the investigation.

The data for the determination of the home of the primitive Semitic race have been taken from four sources : national traditions, the grammar of the primitive tongue, its vocabulary, and the earliest known general historical and linguistic relations. Let us look at the theories that have been based on these four sets of facts.

1. A tradition, if it is distinct and ancient, may furnish valuable historical material. Though it is usually confined to the fortunes of the people among whom it exists, it may go outside of these, and preserve the recollection of other related peoples, as when the Phenician records speak of the Egyptian Taut. This example suggests, at the same time, the necessity of carefulness in drawing conclusions from such statements. If, now, the various Semitic nations had preserved distinct traditions, each of its own origin, and each of its relations with its sisters, it might be possible to learn from them the place where they once all dwelt together. But this is by no means the case. Of four of these nations — the Arameans, the Arabs, the Sabeans, and the Ethiopians — the records of early times, whatever may have been their value, have perished, probably beyond recovery. The remains of the Aramaic language belong entirely to Jewish and Christian literature. Of all the Syrian kingdoms that flourished in Mesopotamia and as far west as Damascus, there is not one that has left

any account of its belief concerning the beginning of things ;
though there is good reason for holding that, outside of the
local Aramean history, this belief was the same as that of
the Babylonians and Hebrews.   The Arabians became a
literary people at so late a stage of their history that they
cannot be said to have any national recollection of remote
times.   What the Koran and Tabari give of primeval history
is partly a distorted form of the accounts in the Jewish and
Persian scriptures and traditions, partly a dim and unintel-
ligible local tradition.   According to Tabari the Semites com-
prise the Arabians, the Persians, and the white races ; the
Japhethites, the Turks, the Slavs, and Gog and Magog ; and
the Hamites, the blacks ; but this is a modern ethnological
table, and does not at all represent an Arabian tradition.
There was, indeed, a widespread opinion among the Arabs that
their language was a daughter of the Syriac, but this was
not based on any knowledge of early connection between the
two peoples ; it was hardly anything more than the recollec-
tion of the literary debt they owed the Syrians, from whom
they received their first scientific stimulus.   They knew
nothing of a time when they had lived elsewhere than in the
region and under the conditions that were familiar to them in
Mohammed's time.   The Sabeans and Ethiopians are equally
destitute of ancient traditions.   The mythological system of
the former of these shows some connection with the Babylo-
nian, — what, has not yet been determined ; but the material
given by the votive, mortuary, and other inscriptions, up to
this time discovered, is local and meagre, and there is not
much hope that anything reaching back to a great antiquity
will be brought to light.   As the Ethiopians passed over from
Southern Arabia into Africa at a comparatively late period,
it is likely that their stock of tradition was identical with that
of the Sabeans; but, whatever it was, nothing of it has been
preserved.   All the Ethiopic literature is Christian, and none
is earlier than the fourth century.

The southern Semites have thus preserved nothing of such
traditional matter as they may once have possessed, and we
have to look to the northern branch of the family for informa-

tion on our question. All the facts now known to us go to show that there existed a common body of tradition in this northern branch, remnants of which are found in the literary remains of the Babylonian-Assyrians, the Hebrews, and the Phenicians. The combined literatures of these nations present a remarkably large mass of tradition, legend, and myth, from which, nevertheless, it is not possible to get trustworthy information as to the origin of the race. The least ancient and most distorted form of the tradition is the Phenician, — mainly fragments (preserved by a Christian writer) of a Greek translation of a digest, which a comparatively late Phenician author made of his country's mythology and cosmogony. These fragments show a close connection between Phenicia and Babylonia, but they teach us nothing directly of the origin of the Phenicians or of their relations with other Semitic nations. The rôle assigned to Taut as inventor of writing, and to Eisiris (if he be Osiris) as establisher of the Semitic triliterality, points to some connection with Egypt, which, however, need mean nothing more than that the Phenicians took their alphabet from the Egyptians ; nor does it appear that more than this is involved in Sanchoniathon's calling Eisiris the brother of Chna (Canaan), or Phœnix. On the other hand Greek tradition connects the Phenicians with the Persian Gulf, that is, with Babylonia.[1]

As was remarked above, it is altogether probable that the North Semitic peoples possessed a common body of myth and tradition, remains of which we have in the Babylonian literature and in the Hebrew book of Genesis. In addition to this, each people doubtless had accounts of its own early history, which were naturally more or less legendary, and may have run back into myth ; but of these the Hebrews alone have preserved a tradition of national origin, with a consciousness of a point where the nation began to exist. In such a mingling of myth, tradition, and history, as we have

[1] Lepsius's identification of the Phenicians with the non-Semitic Puna of the Eastern African coast, opposite the Arabian Aden (*Nubische Grammatik, Einleitung*, pp. 95 ff.), involves many difficulties. In respect to our question, the same remark applies to his theory as to the genealogy of the table of nations in Genesis.

in these accounts, it is hard to find any trustworthy historical data. It is, moreover, the opinion of the best Assyrian scholars that these cosmogonic and other early narratives, certainly down to and including the flood, are not Semitic at all, but Sumerian-Akkadian. We shall search them in vain for hints of Semitic history unless we may suppose that they received a national coloring at the hands of the Babylonians and Hebrews. And even with this supposition we learn nothing of the origin of the Semites. The Hebrew narrative in Genesis (with which the Babylonian was probably identical) places the first abode of man in the region of the Euphrates and the Tigris, and it would be natural to infer that the Babylonians looked on this region as their own first home; but as this might be only the result of a desire to represent themselves as autochthons, it could at best show that they had no distinct recollection of any other home. The succeeding tradition, however, set aside the supposition of an Edenic origin; for, after the flood, when all mankind but the chosen few had been destroyed, the ark rested in a place remote from Eden, and humanity made its second beginning there. This new centre of the race was Armenia according to Berosus, Mount Nisir according to the cuneiform narrative of the flood (located by Friedrich Delitzsch "east of the Tigris, beyond the lower Zab, about in the region between the thirty-fifth and thirty-sixth parallels of latitude"), and Ararat according to the book of Genesis. From this point then, according to the tradition, the Semites must ultimately, along with all other nations, have come; but when and how and to what place did they come? Noah, according to Genesis (in what seems to be a purely Hebrew account), immediately after leaving the ark engaged in the culture of the vine; but, not to speak of the wide area over which the vine may be grown, Noah represents not the Semites but all humanity. It is in the tradition of the dispersion at Babel that the postdiluvian history of man is carried on.[1] The assembled human race, it is there

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[1] Though the genuineness of Berosus's account of the dispersion has been doubted, it is probable that it represents a real Babylonian tradition substantially the same with that of the Hebrews.

said, journeyed from some unnamed point to a place "in the east," came to a plain in Shinar, or Southern Babylonia, and dwelt there till they were visited with confusion of language, and were dispersed over the face of the earth. Nothing is here told us of the directions in which the various nations went. We should naturally suppose that the tradition would retain the Babylonians in Shinar, and send the other peoples abroad; and this is probably its meaning; but there is no indication of race-feeling, no hint of an original unity of Babylonians, Arameans, and Arabs. Here, again, it can excite no surprise that the Babylonians made their own land the scene of the dispersion, the centre of life; and the whole account is too little historical to furnish reliable data for the determination of the original home of the Semites. The same remark must be made of Berosus's list of dynasties: it is purely Babylonian (this word being used in a geographical sense); it shows no consciousness of race-differences; it is at best a localized general Semitic, or a Sumerian tradition, whence we can extract no history of the Semites.

There remains the table of nations in the tenth chapter of Genesis,—a document unequalled in ancient literature for the breadth and accuracy of its ethnological scheme, and exhibiting, what we have not found elsewhere, a sense of race-unity. Its date is uncertain; but we shall probably not be far wrong if we regard it as embodying the ethnological ideas of a Jewish writer who was master of the information his countrymen had gained in Babylonia during the exile, and joined therewith the traditions of his own land. It is possible that we have here an old Babylonian tradition, but it is more probable that the writer has attempted only his own statement of the relationship of the peoples known to him, under the form of a genealogy. His arrangement is geographical, and yet not purely that. He separates the Canaanites from the Hebrews (of the same tongue with them), and puts them with the Egyptians; he omits the Babylonians, who in his time spoke Semitic, from the list of the sons of Shem, and connects Babylon with the Cushite, Nimrod. In this last case modern discoveries have shown that he had a basis for his statement. Geographically,

his enumeration of the sons of Shem begins at the Persian Gulf, east of the Tigris (Elam), passes up the Tigris to Assyria (leaving out Babylonia), embraces the Aramean-Mesopotamian region, and perhaps the country west of it, and thence, entering the Arabian desert and peninsula at some point not given, passes down to the Strait of Bab-el-Mandeb, where it ceases (without mention of African Semites). From this statement the writer's general notion is tolerably plain. He regards the children of Shem (Gen. x. 22) as having originally occupied the country extending from the Persian Gulf, east of the Tigris, through the upper part of the Mesopotamian region (above Babylon), up towards the sources of the Euphrates and Tigris, and thence perhaps westward and southwestward towards the Mediterranean (the doubtful Lud being left undetermined [1]). Further he makes both Hebrews and Arabs emigrants from the Mesopotamian region, or the neighboring country to the southwest and south, and unites them in a close relationship. This last point, which is not in accord with known historical and linguistic facts, we may pass by; it seems to be merely a deduction from the geographical contiguity of these peoples. The important statement for our purpose is the reference of the Arabs and Hebrews, by the author of the table, to a northern locality. He believed that these people had not always lived on the Mediterranean and in the Southern Arabian desert; at some remote time they had spread abroad from their Mesopotamian home. In the case of the Hebrews this tradition is elsewhere more clearly expressed. Abraham is said to have come from " Ur of the Chaldees " by the way of Haran, and the correctness of this recollection of national origin is sustained by the recent discoveries in Babylonia. Whether, now, the account of the Arabs rests on a similar recollection, or on other equally reliable information, we have no means of deciding. It is possible that it also is simply an inference of the writer from the geo-

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[1] If Lud be Lydia (*cf.* Ezek. xxvii. 10), this isolation of a Semitic population in the far west would not affect the locality of the great body of the race, according to the table of nations. The Kir of Amos, ix. 7, is too obscure to help us in locating the Arameans.

graphical relationship of the two peoples. According to one tradition (Gen. xxv. 1–4) part of Arabia was even occupied by descendants of Abraham. Such a sentiment of consanguinity may have led our author to assign to Arabs and Hebrews a common ancestor and a common early home, and we can thence get no trustworthy historical datum ; just as it is felt by most scholars to be difficult to separate Canaanites from the Hebrews ethnologically, against the apparent evidence of language, and in reliance on the genealogies of the table.

Nothing definite, then, is obtainable for our purposes from this table. The author thinks, indeed, of a specific locality for the original abode of the children of Shem ; but the date and the sources of his statement are uncertain. If, as seems possible, the document was produced or completed during or after the Babylonian exile, we cannot tell how much of it rests on ancient tradition, and how much is a simple genealogical statement of the ideas of the time, which were largely determined by geographical conditions ; and if his distribution of the sons of Shem be correct, we still learn nothing of the home of Shem himself. His descendants, it is said, stretched over a considerable area of country, but we are not informed from what point the primitive undivided people began its career. We gain nothing by attempting to combine the genealogies of the tenth chapter with the account of the dispersion in the eleventh. These two narratives belong to different points of view, and do not form complementary parts of the same tradition, though an editor has undertaken to bring them into connection with each other by inserting the remark (Gen. x. 25) that the division of the earth occurred under Peleg ('division '), the grandson of Shem's grandson. But, as we have seen, supposing the whole human race to have dwelt in Shinar, or Babylonia, up to the dispersion, it does not thence appear what the subsequent movements of the descendants of Shem were. Or, finally, if we may hold it to be very probable that the Semitic author of the narrative meant it to be understood that his own people stayed in Shinar, while the rest of the world sought other abodes, this

statement cannot be accepted on his authority as historical, for the reason that it may be merely a Babylonian (and originally non-Semitic) local tradition, which naturally located the beginnings of the new humanity on its own soil.

A survey of the earliest Semitic documents thus shows merely that the North Semitic tradition (of which a considerable part appears to come from a non-Semitic source) located the race along the courses of the Tigris and Euphrates, without furnishing any definite information as to the point at which it originated. It does not point with any clearness to Shinar, or to Armenia, or to the Arabian desert as the earliest home of the Semites, and the theories of origin which, resting on this tradition, have fixed on these points, must be regarded as so far untenable.

2. The second source from which it has been sought to bring data for the solution of our question is the grammar of the Semitic languages. It has been supposed that it was only necessary to determine which dialect shows in the main the fullest and most original forms, out of which those of the other dialects must have come. This language, it is properly said, would stand nearest to the mother-tongue, and thence it has been inferred that the people speaking it must occupy the original seat of the race. This, if it were sound reasoning, would furnish a very simple means of reaching the answer to our question, for it cannot be a difficult problem to determine the comparative antiquity and originality of the grammatical forms of the various Semitic dialects. The materials for such inquiry are at hand, and linguistic principles are definitely enough known and acknowledged to lead scholars, after a while, to practical agreement on this point. But it is easy to show that the above mentioned reasoning is not sound. It is not necessarily true that the people whose language is nearest to the mother-tongue, occupy the original seat of the race. It is not residence in the old home that determines the preservation of old grammatical forms, but the absence of the causes of phonetic change. Apart from climatic influences (which in the case of the closely grouped Semites were not diverse enough to produce marked differences of degradation in the

phonetic systems of the different peoples), and the wear and
tear of ordinary speech, the chief among these causes is inter-
course with other nations. Supposing the language to have
attained stability of form and vocabulary (as was already the
case with the Semitic before it broke up into dialects), an isola-
ted, non-commercial, socially undeveloped nation will be com-
paratively free from linguistic change, while a people who are
brought into frequent and close contact with others, and whom
an active social life leads to devise convenient modes of speech,
will more likely depart further from the original forms of the
language. Hence a literary language of such developed form
is more commonly exposed to change than one that is not
written; for written literature supposes social activity, and
occasions of modification of forms.

Now among the Semitic nations it was the northern division
that was most subjected to the conditions of phonetic change.
The Babylonians, the Assyrians, the Arameans, the Pheni-
cians, the Canaanites, and the Hebrews at an early period es-
tablished kingdoms, mingled with neighboring nations, and
would naturally feel the effect of this friction. On the other
hand, in the southern division, it was only the Sabeans, on the
south coast of Arabia, who reached considerable social devel-
opment. The Arabians, comparatively isolated in their desert
home, roaming about as tribes and clans, but forming few
settled communities, founding few cities, and rarely approach-
ing to anything like a strong government, were thus compar-
atively free from causes of linguistic change. We should
expect, therefore, that their language would remain nearest
to the mother-tongue, and that greater deviations from this
latter would be found in the northern division, as is actually
the case. On these variations of phonetic degradation we
cannot found an argument for the primitive abode of the race;
they depend on other conditions than nearness to the original
home. The tongue that most nearly represents the primitive
speech does not for that reason stand geographically nearer
to the most ancient centre, and that which is grammatically
most remote is not necessarily at the farthest local remove
from it.

We are therefore obliged to reject the theory which makes Arabia the cradle of the Semitic race on the ground that the precedence in fulness and antiquity of form is to be given to the Arabic among the Semitic dialects. The argument for Arabia has been fully presented by Schrader (Z.D.M.G. xxvii. 3). His general statement of the linguistic facts may be freely granted, — perhaps nobody will care to call in question the formal superiority of the Arabic, — but his conclusion that the northern and middle parts of the Arabian desert are to be regarded as the home of the primitive Semites by no means follows from this premise, for the reason above given. The isolation of the Arabians is a much more satisfactory explanation of the fulness of their grammatical forms. Schrader says, indeed, that they, no less than the other Semitic nations, came in contact with surrounding peoples, — Indo-Europeans, Tatars, and Cushites, — but of this there is no proof; that is, there is no proof of any such serious intercourse with these peoples as would be likely to work linguistic change. At a late period, about the beginning of our era, Arabian kingdoms were established on the northern and eastern borders of the desert ; but these had little or no effect on the great body of the desert-people, whose language it is that we call Arabic. Even after the rise of Islam, when the cities of Bosra and Cufa became the seats of Koran-study, it was the roving Bedawin who established the usage of the language, and who then, as now, looked on the dialects of cities as degenerate and corrupt ; then as now, it was the oral tradition of ancient use that gave law to the speech. Everything goes to show that this social isolation of the Arabs has continued from time immemorial. Schrader assumes that they descended from Armenia, at the time of the breaking up of the mother-race. If this were true, we might suppose that they moved slowly along southward among the nations of that region, and that their language was affected by this contact, though this would be by no means certain. But it is not proved that they came from Armenia. We have seen that the traditions do not establish this, and it will presently appear that other supposed evidence in this direction is equally inconclusive. Schrader urges another his-

torical argument to which we cannot attach much importance, namely, that there have always in historical times been emigrations from the Arabian peninsula, but never immigrations to it from other lands ; whence he thinks it more probable that the other Semites originally went forth from the desert than that the Arabians entered it from some other point. But these emigrations in historical times (before Islam) have been comparatively few and small, and they were the result of conditions — mostly tribal wars — which may not have existed in the early period. It is quite conceivable that in the time of migrations a people should have entered the desert and established themselves there, that other peoples should not have been tempted to follow their example, and that they themselves should long afterwards send out small detachments to neighboring countries. There is nothing surprising in this, and no sufficient ground for the supposition that the desert has always given out and never received.[1] Schrader himself, in fact, supposes that at the outset the Semites did enter Arabia from Armenia. In illustration of the effect of social intercourse with strangers and organized life in fixed communities, we may point to the modern Arabic of Cairo, Algeria, and Syria, which exhibits a very considerable phonetic degradation, and warrants us in believing that the fortune of the Bedawin dialect would have been the same as this, if at an early stage of its history the people who spoke it had established cities and mingled with other nations.

The same treatment would apply to an argument based on the supposed formal precedence of the Babylonian-Assyrian. If this could be proved, it would not necessarily follow thence that the primitive Semites lived in Babylonia, but only that for reasons, which might or might not be known, the Babylonian-Assyrians had not been so much exposed as their sister nations to conditions of phonetic change. A claim for the Aramean territory has been founded on considerations of an opposite character. Their dialect exhibits not less but more degradation of form than any of the others, and has

[1] We may compare with the northward movement of the Arabian tribes the emigration of the Gauls to Galatia in historical times.

therefore been supposed to have run through a longer history of change, and to go back to a higher antiquity, — hence to represent most exactly the primitive language and to point to its locality. This argument rests on the same fallacy that has been mentioned above; and, besides, assumes an impossible difference of age in the different dialects. They, of course, all start from the same historical beginning, the mother-tongue, and the only possible difference of age is one of grammatical and literary development, which has nothing to do with the original seat of the race. In regard to the territory of the Arameans, it seems probable that they were at first settled in the upper Mesopotamian region, and only later pressed westward and southwestward; so that, whatever weight might be given to the position of their earliest home in the decision of this question, it would not point to the mountains of Armenia, or the country south of the Tigris and Euphrates, but to what was afterwards Northern Assyria.

3. If tradition and grammar fail to furnish reliable information on our question, it may be that better results will be reached by an examination of the Semitic vocabulary. The attempts of Kuhn, Pictet, and others to reconstruct the life of the primitive Indo-European people, by the determination of the words common to all the dialects, are well known. The common vocabulary, it is said, will exhibit the plants, animals, and minerals in use among the people and the physical features of their land, which latter may thus be identified. The general propriety of such inquiries cannot be questioned, but, as the scholars who have engaged in these investigations have taken pains to point out, there is need of great caution in conducting them. This is especially to be borne in mind when the object is to fix the geographical seat of a primitive, prehistoric people. Here are various special causes of error to be guarded against. It is easy to prove that there was a primitive mother-people; the reconstruction of the grammar of this people is comparatively easy, may indeed be supposed to result naturally from the careful handling of known grammatical facts; and it may be assumed that they dwelt in some definite locality. But when we pass from grammar to vocabulary,

the question of original form is complicated by the greater liability of stems to change. Especially when it is proposed to determine, from the words that have come down to us, the locus of a people who had ceased to exist long before the era of the earliest historical remains in our possession, it is obvious that the general possibility of great verbal changes, in so vast a period, must suggest caution in making inferences from the vocabulary. In all such inquiries the following points must be kept in mind : (*a.*) It is the agreements rather than the differences of the dialects that should be considered. One nation may in the course of ages drop a word which it once possessed in common with the sister nations, and replace it with another. Change of surroundings or habits may produce such change of vocabulary, or the new word may be borrowed from a foreign people. Thus the Babylonian-Assyrian and the Hebrew borrowed from the Sumerian-Akkadian the term *ir* for "city;" and in Hebrew the other words for this conception almost completely died out, leaving, however, sufficient trace to show that they were once in use. Arguments based on such a difference would, of course, be unsound. It is possible that changes of this sort may be of such a nature as to point to some physical feature in the earlier home of the nation; but, unless this is proved, it is unsafe to infer the absence from the original home of some geographical feature because the latter is expressed by different words in the different dialects. In this connection it is to be noted that the literatures of the Arameans (with the exception of the brief Aramaic passages of the Old Testament), the Arabs, the Sabeans, and the Ethiopians date from points some time after the beginning of our era. (*b.*) When a given object is expressed by the same word in all the dialects, it is possible (as Guidi and others have pointed out), if the object is movable, that it may be not a natural product of the original home of the race, but an importation from abroad. This is true of metals, and to some extent of plants and domestic animals. If the primitive people had attained a tolerably high degree of civilization, it would be easy and natural for them to avail themselves of the productions of their neigh-

bors, as we know the Bedawin did at a period when they had advanced little, if at all, beyond what we may suppose to have been the social condition of the primitive Semites. Or to take an example from a neighboring people, — the horse was introduced into Egypt about the time of the twelfth dynasty, and if there had afterwards arisen several Egyptian dialects, all of which used the same word for horse, an argument, based on this identity, to show that the primitive Egyptians inhabited a country of which the horse was a native, would lead to an incorrect result. (*c.*) Where two dialects agree in a word, it is possible that one has borrowed it from the other, a fact that will generally be apparent from the history of the use of the word in the borrowing language. Of this there are not a few examples in the Semitic tongues. It is even conceivable that one dialect, having borrowed a word from a foreign tongue, may then transmit it to its sister dialects, so that what appears on the surface to be a general Semitic term may in reality point to a region never inhabited by Semites.

In the Semitic field the comparison of words is facilitated by the permanence of stems, which is a characteristic of this family. It shows no such divergence of forms as we find in the Indo-European languages. If an original word has been preserved in any dialect, there will be no difficulty in recognizing it if it is found in the literature. The phonetic differences between the various Semitic tongues are so few and simple that there can never be serious difficulty in determining the forms in any one dialect which correspond to those in others. It is the use to which resemblances and differences are put that calls for the exercise of caution in the inquiry of which we are speaking. In another direction, also, care is needed. The territory occupied by the Semites in historical times is so small in extent that there seems to be little room for choice in selecting the site of their primeval home; there is apt to be an unconscious prejudgment of the question based on general considerations, or on some one set of facts. All the more must we guard against such assumptions, and decline to accept any theory that does not emerge naturally

from all the known facts, and satisfactorily explain the phenomena. It is possible that the Semites, or any other great race, changed their domicile once or oftener, and that their language may thence bear the impress of several different localities ; or it is conceivable that, while the people have dwelt in different places, it is some one of these that has most strongly affected the language, and this place, though the testimony of the language might lead us to take it as the primitive home, might not be the latest or the earliest abode of the united race. All that can be said for any locality, to which the common vocabulary may point, is that it in some way affected the language, and that its influence probably came from the residence of the people in it at some time; all this, with the understanding that the facts may be so clear as to point definitely to some one place that may properly be called the home of the primitive people, but they must in that case be able to stand the most careful scrutiny.

As an illustration of this line of investigation we may take the essay of Guidi,[1] the object of which is to show that the cradle of the Semitic race is to be sought in Babylonia. He finds that all the Semitic tongues have the same expression for the following things : *river, sea, canal, marsh, winter, summer, heaven, bitumen, pitch, brick, gold, copper, poplar, tamarisk , cane, palm, pomegranate, wheat, barley, vine, camel, ass, dog, swine, lion, leopard, hyena, wolf, fox, jackall, porcupine, stag, gazelle, hare, wild ass, bow, arrow, spear, ox, heifer, sheep, lamb, goat.* On the other hand, the names of the following objects are different in the different dialects : *mountain, hill, brook, desert, silver, iron, lead, elm, oak, pine, beech, mule, fish, fig, olive, wine.* These agreements and differences, he argues, point clearly to Babylonia as the land where the common Semitic vocabulary was formed. For this country bordered on the *sea* (Persian Gulf), was traversed by great *rivers*, abounded in *marshes* and *bitumen*, used *brick* commonly

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[1] *Della sede primitiva dei popoli semitici. Memoria del socio Ignazio Guidi. Roma,* 1879. *Reale Accademia dei Lincei.* This learned and carefully written paper is valuable, apart from its immediate object, for the light it throws on the life and customs of the Arabs.

for building and writing purposes, produced *wheat* and *barley*, was especially noted for its *palm* trees, is shown by the ruins and monuments to have possessed *gold* and *copper* in plenty, and nourished the animals named above; while it is equally characterized by the absence of *mountain*, *brook*, and *desert*, there are no traces of *silver* and few of *iron* and *lead* in the early times, and the *elm*, *oak*, *pine*, and *beech* are not found in it. Herodotus especially mentions that it lacked the *fig*, the *olive*, and the *vine*, and the *mule* was an importation from the west. This is a striking array of facts, and yet a close examination may show that these words do not fix the home of the Semites beyond all doubt.

In the first place, in accordance with the remark made above, the absent words, those which are not common to all the dialects, must be excluded from the argument. The difficulty in reasoning from such absences is illustrated by the case of the *fish*, for which object the Semitic tongues have not a common word; it is not only hard to suppose that a people who lived, as Guidi supposes, by the Euphrates, the Tigris, and the Persian Gulf were ignorant of the fish, but it is also not easy to see in what region they could have failed to adopt a common expression for a thing so generally known.[1] As in this case the absence of a common term for *fish* cannot be regarded as deciding the question of locality against Babylonia, so the absence of a common term for *desert* cannot exclude Arabia from the list of possible Semitic homes. That the Semitic dialects do not agree in their expressions for *mountain* does not warrant us in concluding that the united people never inhabited a mountainous region. One or another of the dialects may have dropped the original word, and provided itself with an expression better suited to its later abode. In respect to other of these wanting terms other considerations come in. Thus the absence of generally distributed words for *silver*, *iron*, *lead*, and *tin* seems to Guidi to point to a land which did not produce these metals; but their non-occurrence may just as well be explained by the

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[1] It is assumed that the Arabic *nun* is not native, but a loan-word from the Aramaic.

conditions of early civilized or half-civilized life, in which, as is well known, these metals, on account of the greater skill required to use them and for other reasons, play an insignificant rôle. As for the *mule*, if it be true that it was first produced in Western Asia Minor, the lack of a name for it would of course, so far as it could be used as an argument, favor the claim of any other part of Asia to be the primitive home of the Semites. Nor does a common word for *horse* occur, but this can prove nothing for our object. It is probable that the *horse* was not native to any of the lands inhabited by Semites in historical times, nor to Western Asia in general ; and even if the people had once dwelt in the supposed native land of this animal, the steppes of Central Asia, they may in their migration have failed to bring it with them, and have dropped the name for it that they had at first. It will be noticed that our author, while denying that the primitive Semites were acquainted with *wine*, claims that they had the *vine*, inasmuch as this last is expressed by the same word in Arabic, Hebrew, and Aramaic. The presence of the *vine* is unfavorable to the claim he makes for Babylonia, since Herodotus, on whose statement he seems to place much reliance, says expressly that the *vine* was not found in that land. But at this point we have to note only that the absence of *wine* is one of the things that may be referred to an early stage of social development, or to such a stage among certain peoples who had intoxicating drinks from cereals and other sources, but not from the grape. Finally, as is brought out by Guidi himself, the evidence is as great for the absence of the *fig* and the *olive* from Arabia in early times as for their absence from Babylonia. So that this array of negative evidence proves nothing. In addition to the general vice of this sort of argument, special considerations in the case of almost every one of the words cited forbid us to draw the geographical inference with which we are dealing.

We come, then, to the words common to all the dialects. Of these it has already been remarked that the *vine* certainly does not tell particularly for Babylonia, seeing that the testimony of Herodotus is that in his day it did not exist there at

all ; its wide distribution (from the Caspian Sea southwest-
ward to Egypt) makes it, in fact, difficult to cite it in behalf
of any special district as the Semitic home.   Our author's
point, however, is that though the plant was known, the
culture of the grape for its *wine* was not carried on by the
primitive Semites.   This argument has been noticed above ;
and the additional observation may be made that, if some of
the people after their dispersion settled in districts unfavorable
to vine-culture (as Babylonia, for example), this itself might
be a reason for the disappearance from this tribe's dialect
of terms for this culture which they may have once pos-
sessed.   Of the wild animals given in the list, it is suffi-
cient to remark, as Guidi does, that they are not peculiar to
or characteristic of Babylonia, and therefore cannot come
particularly into consideration here ; and the same thing must
be said of the domestic animals — the *ox*, the *sheep*, the *goat*,
as well as the *camel*, the *ass*, the *dog*, and the *swine*.   *Wheat*
and *barley* also are found in many other regions than the
Tigris-Euphrates valley.   The conclusion that our author
here presses is that the primitive Semites were a pastoral
people and cultivated cereals.   Not only are the names of the
domestic animals and the grains common to all the dialects,
but also the words describing the operations of industry ; not,
however, those which signify *bread, leaven*, and *cooking*.   Pass-
ing over this last negative statement as inconclusive, let us
suppose that the pastoral character of the primitive Semites
may be fairly inferred from the other facts, — that it is not
likely that the language would have possessed words for
ploughing and *sowing* (and there is no trace here of borrowing
by one dialect from another) unless the people had engaged
in these employments.   Let it be admitted that at one time
they inhabited a land that permitted such occupations ; but
the territory that fulfilled this condition, stretching at least
from the Caspian Sea to the strait of Bab-el-Mandeb, was
very extensive, and for Babylonia all that can be said in this
connection is that it is not excluded.   The occurrence of
names of weapons, such as *bow, arrow, spear*, has, of course,
no special bearing on our question.   As to the trees which

have common names in Semitic, Guidi himself refers to the difficulty of insisting on them, "because the migrations of trees are almost as great and complicated as those of peoples;" and we need not stop to ask the distribution of the *poplar,* the *tamarisk,* the *styrax,* and the *pomegranate.* The *palm,* for which Babylonia was famous, was found from Persia to Egypt and beyond, and a noteworthy illustration of its geographical variations is found in Palestine, where it was once abundant, but is now very rare.   It has already been remarked that the use of *gold* and *copper,* rather than *iron, silver,* and *lead,* might be simply a feature of an early civilization; and it is besides obvious that metals might be known to a people though they were not produced in its territory. But the argument from absence of names cannot be pressed; because the dialects have not the same word for *silver,* it is not certain that the primitive tongue did not have such a word. Disregarding the words for *winter, summer,* and *heaven,* which are too indistinct to point to a special locality, there remain those for *river, canal, sea, bitumen, brick,* which, our author thinks, go far to identify the primitive Semitic land with Babylonia. Of these it is doubtful whether the dialects show a common expression for *bitumen;* the Arabic *humar* is 'Jew's pitch' and so *kufr,* and both these words appear to be taken from the Jews. The soil of Babylonia is especially favorable to brick-making, but the process was carried on very early in Egypt, and apparently in Arabia, and such an operation may have been learned and named by the early Semites even though they lived in a land not favorable to it. *Marshes* were found in Arabia as well as in Babylonia. Finally, it is impossible to lay great stress on the existence of common terms for *river* and *sea.* In whatever region of Western Asia the primitive Semites may have dwelt, they might easily, and would naturally, have had words for such prominent and well known objects. Near the Caspian Sea, or in Armenia, or in the depths of the desert, they would have heard of and seen some stream large enough to be called a *river,* and they could not have gone far in any direction without finding a *sea.* There is, besides, room for doubt whether the Arabic *yam* is

native or a loan-word from the Aramaic ; and *canals* abounded in Oman, as in Egypt and Babylonia.

It appears, then, that no one of the common words cited by our author binds us to any one locality for the primitive Semitic dwelling-place. But may they not, all taken together, point to some one land which alone fulfils all the conditions ? From our examination it may be inferred that the Semitic people was acquainted with agriculture, the common domestic animals, certain wild animals, gold and copper, the palm and other trees, *sea*, *river*, *canal*, and *marsh*. To these objects we may add *fountain* or *spring*, the expression for which is common to the northern and southern divisions of the language. If we recollect that an object, to be known to a people, need not exist in their land, but may have been heard of from emigrants, or seen in forays, and bear in mind the wide distribution of most of the things discussed above, it will be difficult to fix on any narrow locality as one that alone meets the requirements of the case. Dwelling in Babylonia the people might have known all that this Semitic vocabulary demands of them ; though, for example, there may have been no springs in southern Babylonia, it would have been quite possible for them to know the spring from other lands and to give it a name ; but in southeastern Arabia also they might easily have been acquainted with all these things, and probably in Armenia and the country south and southwest of the Caspian Sea. Considering the meagreness of the existing vocabularies of some of the Semitic tongues, and the late period at which others were committed to writing, it seems rash to fix precisely the circumstances under which the primitive vocabulary was formed, and especially to select a restricted territory, and find in it all the materials for the people's stock of words.

The difficulties in the way of Guidi's theory hold equally of one that should make Arabia, or any other land, the seat of the Semites. The data hitherto discovered or brought forward are not sufficient to solve the question. Much more is this true of an attempt to fix the home of the ancestors of the combined Semitic and Indo-European races, supposing that the linguistic facts made it probable that these two came

from a common parent-race. Here the elements of uncer-
tainty, by reason of the greater remoteness in time and the
greater possibilities of place, would be more numerous than in
the question we have been discussing. The evidence, both
of language and of tradition, would be feebler and less trust-
worthy ; and we can hardly suppose that Guidi places much
reliance on the attempt he makes to trace the progress of the
Semites from the Aryo-Semitic home (southwest of the Cas-
pian Sea, where the ark is supposed to have rested) to Baby-
lonia by giving geographical and other interpretations to the
names of Shem's descendants found in the second half of the
eleventh chapter of Genesis.

4. The fourth direction in which data for the determination
of our question have been sought, is the early history of the
Semites as indicated by the results of recent researches in the
Babylonian-Assyrian literature. According to these the Se-
mites were preceded in the occupation of lower Mesopotamia
by a civilized non-Semitic people, from whom they borrowed
customs and laws, mythology, the art of writing, and their
literature. If now it was the whole Semitic race that thus
came under the influence of the Sumerian-Akkadians, we
should expect to find its traces among all the nations of the
race. But this is not the case ; it is only in the northern divis-
ion and among the Sabeans of South Arabia that there are
signs of ancient contact with the old Chaldeans. It may be
that the southern Arabs were affected by this people through
their commercial relations by the way of the Persian Gulf.
Of the others, the Babylonians and Assyrians naturally show
the Akkadian influence most distinctly ; next to them, so far
as our present knowledge goes, come the Hebrews ; and then
the Phenicians and other Canaanites, and then the Arameans.
These facts accord best with the supposition that only the
northern Semites inhabited Babylonia, and that the various
subdivisions departed from this point at different times ; first,
the Arameans, then the Canaanites and Phenicians, last of
all the Hebrews. Possibly also it might be supposed that the
Sabeans once dwelt there. More exactly, we should only have
to suppose that all the northern Semites were once under

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Sumerian-Akkadian influence. Among the Arabs proper, the Bedawin, there is no trace of this. Their customs, mythology, poetry, are altogether different from those of the northern division. Allowance must be made, it is true, for the recent origin of Arabian literature; some of their old tradition and mythology may have perished before the art of writing was introduced. It may be supposed that the Arabs separated from the main branch soon after they entered the Tigris-Euphrates valley; but whether the separation took place immediately before or immediately after this entrance, the Arabic language could not be said to have been formed in Babylonia.

The established facts may be held to be these: the Babylonian-Assyrians and the Hebrews certainly, and the other north Semites probably, dwelt for a considerable time in and near the lower Euphrates valley, along with and under the influence of the Sumerian-Akkadians; at a very early period occurred the separation between the northern and southern divisions; the southern division, with the exception of the Sabeans, gives no evidence of having known the Akkadian civilization; the probability is that the Semites entered Babylonia on the southern rather than the northern side, — that is, either by the Persian Gulf or by crossing the Tigris or Euphrates. These facts suggest conjectures, but they do not at present lead to any definite results; it can only be affirmed positively that some of the northern Semites dwelt at an early period in or near Lower Mesopotamia.

This is, I think, a fair statement of the facts bearing on the solution of our question. If it is only a negative conclusion to which we are led, that must be ascribed to the insufficient character of the data. It is not surprising that we should be unable to fix definitely so remote a period as that at which the Semites dwelt together and spoke one tongue; but it does not follow that it will never be fixed, or that researches in this direction are useless. If they are conducted with scientific precision and sobriety, though they may not solve the problem proposed, they will always yield valuable results. To avoid premature generalizations and precipitate judgments,

however, preliminary studies are necessary. While the deci-
pherment of Assyrian inscriptions is slowly unveiling the
early history of the Tigris-Euphrates valley, and the science
of ethnology is throwing its light on the beginnings of races
and civilizations, Semitic comparative grammar and lexicog-
raphy must contribute its part by an exacter working up of
the material of the various dialects; and to make comparisons
reliable these dialects must first be severally studied. Up to
this time the Assyrian, so important for the history of the
Semitic tongue, remains without a satisfactory account of its
dictionary and grammar; and the hardly less important Sabean
is represented by so sparse materials that we have no very
distinct knowledge of its character. There is room for much
good work even in the vocabularies of languages that have
been so long and so closely studied as Hebrew and Arabic.
Every careful investigation of a particular point is a contri-
bution to general grammar, and to such reconstruction of
ancient history as general grammar may be able to make.
The essays of Schrader and Guidi above cited contain discus-
sions that have a grammatical or historical value independent
of their immediate object, and in respect to the question of
the home of the Semites, have at least shown the insufficiency
of certain data, and the necessity of wider researches. But,
while it is true that in searching for something unattainable
by the resources at our command we are often led to valuable
discoveries, it is still always better to know the conditions and
preliminaries of our search, and to do the preparatory work
before setting out, — the preparatory work in this case being
minute study and comparison of the several Semitic dialects.
When the proper facts shall have been gathered, the results,
in the departments of grammar and history, will show them-
selves with unmistakable clearness.

III. — *The New Spellings of the Philological Society of London.*

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SYNOPSIS.

WHEN the Philological Society of London undertook last year to prepare a list of words in corected spelling for imediate use, it was confidently expected that the Comittee of the American Philological Association to which such matters ar referd would be able cordialy to endorse the hole English list. The leaders in the movement wer known to be agreed as to the ultimate spelling at which reformers should aim. It was supozed that the list would contain only such words as coud be drawn nearer to this ultimate spelling without obscuring their etymology or pronunciation to the general reader.

It proved, however, that members who wer agreed as to what it would be desirabl to do, wer of very different opinions as to what can be done, and what it is best to try to do.

Perhaps the way in which the list was prepared was not a good one. Changes wer propozed in open meeting, voted on one by one, and adopted by a majority vote. Sum members probably had no system in mind, but voted on each corection as it happend to strike them. Perhaps the members prezent at the different meetings wer not the same; the discussions lasted from July 9, 1880 to January 28, 1881, — six meetings. The rezult is that the final list is probably not such as any member would hav prepared, and sum of the members hav taken ocazion to say so to the public. The Prezident, Mr. A. J. Ellis, is one of theze. He believs in forming and urging a complete fonetic system for use side by side with the old spelling at first. He devotes the main part of his prezidential adress to an atack on partial reform. This adress is publisht, of course. Mr. Ellis has also publisht his disent in the English periodicals.

Dezirabl as it would be to giv to the report as a hole the prestige which would be gaind from the unanimous endorsment of all the filologists interested in the reform, that is now impossibl. The Committee of the American Philological Association has therefore felt quite free to adopt for its own report only such of the recomendations of the English Society as it can cordialy endorse, and it has not thought it wurth while to discuss the details.

Perhaps it may interest this Association, however, to hav the English pamflet pretty fully set forth with comments in a separate paper.

The pamflet is spelt acording to the recomendations of the Society, and the extracts from it in this paper follow the same spelling; but the remarks of the writer of the paper ar spelt acording to the recomendations of the American Comittee.

It begins with a mention of works of reference, a half a duzen English books and pamflets by Sweet, George Withers, Max Müller, J. H. Gladstone, and others. Then there ar ten pages devoted to "general principles."

1. The objects of the Spelling Reform. Theze ar stated to be:

a. To facilitate the acquizition of English spelling; thereby

  b. enabling children and adults to lern reading who ar at
       prezent unable to do so ;

  c. shortening the time spent in lerning to read ;

  d. facilitating the acquizition of the ordinary spelling ;

  e. efecting a saving of national expenditure ; and

  f. spreding the knowledg of English among forein nations.

  g. To remoov etymologicaly misleading spellings.

2. A history of Spelling Reform within the Philological
Society.

3. A history of English spelling, the two most important
facts of which ar :

  a. that it has always been in intention fonetic, except
where corupted by French spellings or their analogies ;

  b. that the main cauz of the prezent divergence between
pronunciation and spelling is the retention of the spelling,
while the pronunciation has changed.

4. The cauzes of the difficulty of English spelling. It is
unfonetic :

  a. in keeping silent letters ;

  b. in keeping the same symbol for sounds that hav di-
       verged, as in *had, hard, was, hate, water ;*

  c. in keeping different symbols for sounds that hav con-
       verged, as in *name, fail, weight, great.*

In the last category we must notice especialy the retention
of purely arbitrary distinctions, as in *now, thou, city, cities, dry,
dryness, drily.*

5. The remedy is to make the language fonetic. The
practical test of a fonetic orthografy is that it is lernt with-
out spelling lessons beyond the acquizition of the sounds of
the elementary symbols. But there may be partial remedies
which do not bear this test very wel. Thus by writing *name,
fale, wate, grate,* we get rid of the difficulty cauzd by the
prezent divergence in the words *name, fail, weight, great,* tho
the new spelling does not bear the practical test.

6. The direction of reform. A partial reform must avoid
comitting itself to changes of disputed direction, as far as
possibl.

" The main divergence is between thoze who adopt the

original (Roman) fonetic values of the vowel-letters, and thoze who retain their prezent English ones.

Any alteration of the vowels of *see* or *time* would at onse alienate thoze who advocate the English values, while such a change as that of *machine* into *macheen* would alienate thoze who advocate the Roman values.

The only undisputed associations ar thoze between the italic letters in the following words and the sounds they hav in thoze words :

*b*e, *d*ay, *e*nd, *f*ell, *g*et, *h*ill (except where *h* is a diacritic, as in *th*), *i*t, *k*ill, *l*et, *m*en, *n*o, *o*n, *oi*l, *p*en, *r*ed, *s*o, *t*en, *v*ine, *w*ell, *z*eal."

It seems from theze statements of the pamflet that there is pretty good agreement on the signs of the elementary vowels, *i. e.* on the fundamental sounds which the types ar to hav. The divergence realy is between thoze who would giv the types the same sounds in long vowels and difthongs which they hav in short vowels, and thoze who giv them different sounds, thereby refusing to make the long vowels and difthongs fonetic.

The rule to avoid disputed changes is good ; it should hav been strictly aplied. There is no necessity that the corected words should be numerous ; the great point is that they should be free from objection. But in fact sum of the corections ar open to ernest objection. Such ar thoze in which an extended use is made of *ee* for the sound produced by lengthening the *i* of *pick* as in *pique*. This is a central position of divergence. If *ee* is establisht for this sound, the long vowels and difthongs into which *e* or *i* enters ar all set at variance. Such also ar the corections in which *oo* for long *u*, as in *rude*, *ruin*, is extended. It is also wurth mentioning, perhaps, that the list of undisputed letters is not strictly corect. The use of the type *o*, for example, is undisputed only when the view is confined to reformers who insist on having no new letters or diacritical marks. When theze ar admitted, it is strongly urged that the old *o* should be used for its sound in *potato*, and that the new type or markt letter should be put for *o* in *not*, according to the use of the Ameri-

can Spelling Reform Association, and of Mr. Sweet in his Anglo-Saxon books, and the general alfabet of his "Handbook of Phonetics." The *u*'s of *but, bush,* etc., and the *o*'s of *not, note,* etc., ar on like footing.

7. The obstacls to reform ar the difficulty and inconvenience of change; but large changes hav been made and ar now going on. Much prejudice, however, is excited by unfamiliar forms of words, and this is a reazon for avoiding changes which ocur very often, such as *ov* for *of*, *z* for *s* in inflections, and the like. Less prejudice is excited by omissions than alterations of letters.

8. Etymology and history. Etymological spelling, in its conventional sense, consists simply in retaining the fonetic spellings of an erlier period after they hav becum unfonetic. Such a spelling destroys the materials on which etymological investigations ar based — namely, a continuous series of fonetic spellings.

Altho theze views ar now accepted by all filologists, an apeal to traditional spellings, in introducing a partial reform, has two uses: *a.* it afords a basis of agreement which may be otherwize wanting, as in the expulsion of the *s* of *island* ; and *b.* afords a convenient principl of limitation. It also servs as a test of the sincerity of thoze who opoze reform solely on "etymological" grounds.

Sum "etymological" spellings ar *incorect*, as *s* in *island;* sum *corect*, as *k* in *knee:* classes of spellings ar often *neutral.* Silent *e*, for exampl, is neutral, since it is a mere chance whether it corresponds to an older vowel or not ; so final silent *b*. It is very difficult, therefore, to giv rules on etymological grounds which wil not hav many exceptions.

9. Distinctiv spellings, as *scent, sent, in, inn,* ar objectionabl, but the pamflet tels us that it is, of course, open to any one to retain a distinctiv spelling in any case where he may think it advizabl.

10. Proper names. Theze stand on a different footing from ordinary words in many ways, especialy names of persons, and ar left unalterd for the prezent. Such names as "Philological Society" may be considerd proper names.

11. Varieties of pronunciation should be recorded by varieties of spelling. The pamflet says "there is no more reazon for A, who pronounces a givn word in a certain way, being obliged to spel it differently becauz B pronounces it differently, than for the hole of England being obliged to write *knight* or *edage* (for *age*), becauz peple pronounced so sum hundred years ago." This seems to be a rejection of a standard in pronunciation, a rebellion agenst all orthoepic authority; but perhaps we ar to understand *aproovd* varieties of pronunciation, the varieties to be herd among educated Londoners. General advice to all speakers of English to spel as they pronounce is surely holely out of place in a pamflet whose purpose is to set forth sum such partial corections of the current spelling as ar likely to be generally unobjectionabl.

The first words of the first report to the American Philological Association on Spelling Reform ar:

" It does not seem dezirabl to atempt such sweeping changes as to leav the general speech without a standard."

So the American Spelling Reform Association begin by distinguishing their work from that of the orthoepist:

" We ar met to reform orthography, not orthoepy; we hav to do with writing, not pronunciation. There ar all sorts of English peple, and words ar pronounced in all sorts of ways. It is the work of the orthoepist to obzerv all theze different ways, and to decide which is the prevailing pronunciation of the most cultured, to decide which is the standard English pronunciation. The orthographer tels how to reprezent this pronunciation in writing. The orthoepist has many nice and difficult questions to solv. We enter into his labors. We take for granted that there is a standard pronunciation of English. We wish to see it represented by simpl and reazonabl alfabetic signs."

In fact I am not sure that there ar any improvements of spelling set forth in the English lists which reprezent a pronunciation unknown to the dictionaries.

12. The twelfth and last preliminary discussion treats of conforming pronunciation to the prezent spelling, insted of the

spelling to the pronunciation. This is declared to be impossibl in the prezent state of things. It is hinted however that something might wel be done in this way if the fonetic principl wer in general use.

Next follow " Details." They ar givn here in the language of the pamflet. Comments ar added in brackets. The lists of ilustrations ar not givn in full.

VOWELS.

e. Silent *e* has no etymological value, and should be omitted wherever foneticaly useless, that is, wherever it does not lengthen a preceding vowel, and in sum other cases noticed below.

In the following words it is foneticaly misleading, being added to a short vowel followd by a singl consonant, and should therefor be dropt:

Above, abuv ; *are,* ar ; *bade,* bad ; *come,* cum ; *comes,* cums ; *dove,* duv ; *give,* giv ; *given,* givn ; *gone,* gon ; *have,* hav ; *live,* liv ; *lived,* livd ; *love,* luv ; *shove,* shuv ; *some,* sum ; *somewhat,* sumwhat ; *vineyard,* vinyard ; *welcome,* welcum ; *were,* wer.

Retaind in *done, none, one* [to save the etymology].

hav thus distinguisht from *behave,* and *liv* from *alive.*

[Many other exampls in which it is foneticaly misleading for the same reazon ar givn further on, under *-ine, -ise,* and other endings, p. 59.]

In the following cases it is foneticaly useless.

It should be dropt after *v* and *z* preceded by a writn long vowel or a consonant, as in :

Aggrieve, agreev [agriev] ; *aggrieves,* agreevs [agrievs] ; *aggrieved,* agreevd [agrievd] ; *believe,* beleev [believ] ; *calve,* calv ; *carve,* carv ; *cleave,* cleav ; *curve,* curv ; *involve,* involv ; *leave,* leav ; *move* [stet], moov ; *nerve,* nerv ; *perceive,* perceiv ; *preserve,* prezerv ; *prove* [stet], proov ; *receive,* receiv.

[For explanation of comments in brackets see *ie* p. 61, *o* p. 62.]

Frieze, freez [friez] ; *furze,* furz ; *wheeze,* wheez ; *adze,* adz.

The general retention of *e* after *v* is a tradition of the Tudor period, when *u* was writn for *v* as wel as *u* ; if the *e* had been dropt, *valu = valve* would have been confuzed with *value.*

e should be dropt after writn difthongs :

Awe, aw ; *aye,* ay ; *eye,* ey ; *owe,* ow.

e coud also be dropt after a singl vowel, as in *due, hoe,* but not

in inflections such as *dus* (cp. *thus*), *hod*; it had therefor better be retaind thruout for the prezent.

e always prezervs the breth sound of preceding *s* with a consonant before the *s* (except in *cleanse*, and sometimes in *parse*), and often also when a vowel goes before; hense the *e* of such words as *dense*, *lease*, coud not be dropt without confuzion with *dens*, *leas*, where *s* = *z*, but

e should be dropt after *s* = *z* preceded by a consonant or writn long vowel, whether *z* is writn insted of the *s* or not:

Appense, apeaz; *applause*, aplauz; *cheese*, cheez; *clause*, clauz;

Also in *-dge*, as in:

Edge, edg; *edged*, edgd; *knowledge*, knowledg.

Compare *Edgware*, *acknowledgment*.

And in

Apse, aps; *axe*, ax; *collapse*, colaps; *collapsed*, colapst; *glimpse*, glimps; *lapse*, laps.

Mute *e* may, of course, be added or restord [*sic.* London pronunciation] wherever advizabl, as in *holely* for *holly* = *wholly*.

Inflectional and Derivativ *e*.

For *-re* write *-er*:

Centre, center; *centres*, centers; *centred*, centerd; *lustre*, luster; *metre*, meter; *mitre*, miter; *nitre*, niter; *saltpetre*, saltpeter; *sceptre*, scepter; *sepulchre*, sepulcher; *spectre*, specter; *theatre*, theater.

-re must be retaind after *c*, as in *acre*, *lucre*, *massacre*.

The change has alredy been made in (*gas*)*meter*, *barometer*, *tiger*, etc. [and in the other words by Webster and others].

The *e* of *-le* can be dropt

(*a*) where the *l* is preceded by two consonants, as in:

Apostle, apostl; *assemble*, asembl; *assembles*, asembls; *assembled*, asembld; *pebble*, pebl; *puzzle*, puzl; *settle*, setl; *single*, singl;

(*b*) where *l* is preceded by a singl consonant with a short vowel before it:

Couple, cupl; *double*, dubl;

(*c*) where a writn long vowel precedes, as in:

Beadle, beadl; *foible*, foibl;

(*d*) in the terminations *-able*, *-ible*, and *-icle*, as in:

Agreeable, agreeabl; *article*, articl; *articles*, articls; *possible*, possibl; *probable*, probabl; *sensible*, sensibl.

e can be dropt in *-ine*, *-ise*, *-ite*, *-ive*, *-some*, wherever the *i* or *o* is short, as in:

Discipline, disciplin; *doctrines,* doctrins; *examined,* examind; *feminine,* feminin; *practise,* practis; *promise,* promis; *treatise,* treatis; *premise,* premis; *definite,* definit; *favourite,* favorit; *infinite,* infinit; *opposite,* opposit; *motive,* motiv; *motives,* motivs; *repulsive,* repulsiv; *talkative,* talkativ; *handsome,* handsum; *quarrelsome,* quarrelsum; *tiresome,* tiresum; *wholesome,* holesum.

In other words :

Brimstone [stet], brimston; *purpose,* purpos; *therefore* [stet], therefor; *wherefore* [stet], wherefor.

Where the *e* modifies the preceding vowel (not necessarily by lengthening) in any way, it cannot be omitted : this is specialy the case after *u,* as in *volume, soluble, nature, measure.* The *e* coud be omitted after *u* in sum words, such as *figure* and *injure,* but it is simplest to leav it everywhere. *e* modifies *a* in such words as *inviolate, purchase, obstacle.* It cannot be dropt after *c* or *g,* as in *crevice, image.* [The treatment of *brimstone, therefore, figure, obstacle,* suggests a peculiar pronunciation. Phelp pronounces *brimstōne, therefōr, figyur* or *figŭr, obstăcl.*]

e before a consonant is often dropt in *-es* and *-ed* (p. 66), of which many exampls ar givn abuv.

-en often drops its *e* ; especialy in participls, as in :

Driven, drivn; *eaten,* eatn; *ridden,* ridn; *risen,* rizn; *striven,* strivn; *written,* writn.

ea has the etymological value of simpl *e,* which preceded it in Midl English, and the *a* can be omitted in :

Bread, bred; *breadth,* bredth; *breakfast,* brekfast; *breast,* brest; *breath,* breth; *cleanly,* clenly; *cleanse,* clenz; *dead,* ded; *deaf,* def; *dearth,* derth; *death,* deth; *dread,* dred; *dreamed* [?], dremt; *earl,* erl; *early,* erly; *earn,* ern; *earnest,* ernest; *earth,* erth; *endeavour,* endevor; *feather,* fether; *head,* hed; *health,* helth; *heard,* herd; *hearse,* herse; *heaven,* heven; *heavy,* hevy; *jealous,* jelous; *lead,* sb., led; *leaned* [?], lent; *learn,* lern; *leaped,* lept [?]; *leather,* lether; *leaven,* leven; *meadow,* medow; *meant,* ment; *measure,* mezure; *pearl,* perl; *peasant,* pezant; *pheasant,* fezant; *pleasant,* plezant; *pleasure,* plezure; *read,* prt., red; *ready,* redy; *realm,* relm; *rehearse,* reherse;' *search,* serch; *spread,* spred; *stead,* sted; *steady,* stedy; *stealth,* stelth; *sweat,* swet; *thread,* thred; *threat,* thret; *threaten,* threten; *treachery,* trechery; *tread,* tred; *treadle,* tredl; *treasure,* trezure; *wealth,* welth; *weapon,* wepon; *weather,* wether; *yearn,* yern; *zealous,* zelous.

Where *ea* has the sound of *a,* the analogy of *hark* justifies us in omitting the *e,* thereby restoring frequent Tudor spellings :

Hearken, harken; *heart,* hart; *hearth,* harth.

eau. The older spelling of *beauty* should be restord :

Beauty, beuty.

ei. The *e* of *height* is useless :

Height [stet], hiht.

[The vowel sound in *height* is a difthong, ought not to be reprezented by *i*, is often reprezented by *ei*, as in German, and J. Pitman's fonografy.   Better let it stand for the prezent.]

eo.   Where *eo* has the sound of *e(e)*, the older spellings should be restord :

Jeopardy, jepardy ; *leopard*, lepard ; *people*, peple [hardly wurth lerning].

In *yeoman* the *e* is useless.

i.   The unhistorical *i* of *parliament* should be dropt :

Parliament, parlament.

The commonest Midl English spelling is *parlement.*

ie for *ee* in English words is unhistorical, and the older spelling should be restord.   The *ie* in French words is historical in French itself, but all theze words wer originaly writn with *ee* in Midl English, which *ee* ocurs frequently in Tudor English also.   *sieve* had originaly *i* (Old English *sife ;* cf. *sift*) which should be restord.

[This change excites much objection, and for that reazon, if no other, should not hav been made in such a list as this.   The change from *ee* to *ie* is a fonetic change.

In *acheve, bileve, bref, chef* (but all the exampls in Stratmann ar spelt *chief*), *feld feeld, fers feers, gref greef*, and the like, the *ê* and *ee* wer used at first for the sound of *e* in *they*.   The words afterwards changed their pronunciation.   The spelling did not change at onse, yet it was felt to be unfonetic, and such words ar in erly manuscripts ocasionaly spelt with *i, ii, ie,* to indicate the new pronunciation ; *ie* is a penman's natural modification of *ii*, and is used for it in French and German.   It has establisht itself in a considerabl number of familiar words.   This was a natural fonetic movement as long as the letters *i* and *e* wer named by their old sounds.   The badness of using *ee* for *ii* is now conceald sumwhat by the modern names of the letters.

It is agreed by all reformers that *i* must stand for the vowel sound in *it*, and *e* for that in *met*.   Then theze letters must in fonetic spelling be named from thoze sounds, as they used to be.   They ar now so named where spelling by sounds is practist.   It is an important point to giv theze names general currency, and it seems likely to be one of the first steps which can be taken in the scools towards fonetic reform.   By the time we might succeed in substituting *cheef* for *chief*, we shal hav *i* named as we now name *e*, and *e* as we now name *a* ; and all the abecedarians wil know that *ch-e-e-f* cannot spel *chiif*.

The only reazon for reverting to an unfonetic spelling of the Tudor period would seem to be despair of ever bringing the fonetic spelling into general use.   But it is too soon to despair of a reazonabl spelling of our long vowel sounds.   At any rate, a partial list of improved spellings is no place to exhibit such despair.   Let us wait.]

Achiev, believ, bier, brief, chief, field, fiend, fierce, friez, grief, griev, lief, liege, mien, niece, piece, pier, pierce, priest, relief, reliev, repriev, retriev, shield, shriek, siege, siv, thief, thiev, tier, tierce, wield, yield.

Mischief, mischievous, cannot take *ee.*

o.   The Tudor *oo* should be restord in :

Behove, behoov; *gamboge* [stet], gambooge; *lose,* looz; *move,* moov; *prove,* proov.

[It is better not to urge *oo* for an *u*-sound ; *pruve* is a better spelling than *proov,* and we need not yet despair of it.]

Who, whose, had better retain their singl *o* for the prezent.

In the following the Old English and Old French *u* should be restord :

Above (abuv), *affront* (afrunt), *attorney* (aturney), *borough* (buroh) [?], *colour* (culor) [?], *come, comfit, comfrey, comfort* (cumfort), *companion* (cumpanion), *company, compass, conjuror* (cunjuror), *constable, covenant, cover, covet, covey, discomfit, dove, dozen, front, govern, honey, love, money, mongrel, monk, monkey, plover, pommel, shove, shovel, some, son, sponge, stomach, thorough* (thuroh) [?], *ton, tongue* (tung), *won, wonder, worm, worry, worse, worship, worst, worth.*

Onion may be left unchanged, to avoid confuzion of pronunciation with *union.*

In many words, such as *combat, conduit,* the spelling has corupted the pronunciation ; and the pronunciation of several of the abuv words varies.

In the following words *o* is historical: *among*(*st*), *brother, does, done, dost, doth, glove, monday, monger, month, mother, none, nothing, once, one, other, smother, twopence, word, work, world.*   [The historical treatment does not show to great advantage in theze lists.   It would excite far less objection to amend theze Anglo-Saxon words than the familiar Latin forms in the list to be " restord."]

In *women* (O.E. *wifmenn*) original *i* should be restord.

oe.   The older *oo* should be restord in *canoe* and *shoe,* thus distinguisht from *doe, toe,* etc. :

[A bad change.   See remark under *o,* above.   *Shu* (schu) is an old spelling, and *canoe* can wait.]

Canoe is quite a late spelling on the analogy of *shoe;* Walker stil writes *canoa.*

ou. The Old English and Old French *u* should be restord in :

Adjourn (ajurn), *bourgeon* (burgeon), *country, couple* (cupl), *couplet, courage, cousin, double, enough* (enuf), *flourish, journal, journey, joust, nourish, rough* (ruf), *scourge, southerly, southern, through* (thru), *touch, touching, tough* (tuf), *trouble* (trubl).

The *ou* in *enough* and *tough* has no historical value, and may therefor be made fonetic ; the historical spelling would be *enoogh* and *toogh* (O.E. *genóh, tóh*).

In *-ough* the *u* is useless (O. E. *bohte, áhte*, etc.) :

Bought, boht; *brought*, broht; *fought*, foht; *ought*, oht; *sought*, soht; *though*, tho; *thought*, thoht; *wrought*, wroht.

[Hardly wurth changing til the ultimate representation of the · vowel sound is decided.]

In *-our* the dropping of the *u* should be carried out everywhere [as in Webster and Worcester].

u after *g* in nativ English words is unetymological, and is not more required in *guess*, etc., than in *get, gill, girdle, give*, etc. The *u* in *guarantee* and *guard* is no more required than in *regard* and *gage*.

Guarantee, garantee ; *guard*, gard ; *guardian*, gardian ; *guess*, gess ; *guest*, gest ; *guild*, gild ; *guilt*, gilt.

The *u* before *e* and *i* in forein words must be retaind to keep the *g* hard : *disguize, guerilla, guide, guile, guillotine, guinea, guize, guitar*.

Silent *u* should be dropt after *q, conquer* being thus distinguisht from *conquest :*

Antique, antiqe ; *conquer*, conqer ; *coquette*, coqette ; *critique*, critiqe ; *exchequer*, excheqer ; *etiquette*, etiqette ; *lacquer*, lacqer ; *lacquey*, lacqey ; *liqueur*, liqeur ; *liquor*, liqor ; *marquee*, marqee ; *masquerade*, masqerade ; *mosquito*, mosqito ; *oblique*, obliqe ; *opaque*, opaqe ; *piquant*, piqant ; *pique*, piqe ; *piquet*, piqet.

The combination $q + u$ is, of course, always historical ; but to recall the older spelling the reader wil only hav to remember that the *q* of *conqer*, etc., is an abreviation of *qu*. *Queue* may be writn *qeu*, but it is simpler to adopt the alternativ spelling *cue*.

[This change oversteps the natural limits of the lists. It oversteps the etymological limit. It extends the use of *q* to a sound which *k* and *c* ar finaly to reprezent. It wil be specialy objectionabl to the peple on acount of its queer look. Better leav theze words awhile.]

ue is historicaly useless (due to the influence of Modern French spelling) in the following words after *g*, and should be dropt :

Apologue (apolog), *catalogue, colleague, decalogue, demagogue, dialogue, eclogue, epilogue, harangue* (harang), *league, monologue, mystagogue, pedagogue, prologue, synagogue, tongue* (tung).

Neither the *e* nor the *u* can be dropt in *fatigue, vague*, etc., altho even the ordinary orthografy drops the *ue* in *demagogism.*

The dissyllabic *ague* and *argue* should drop the *e*, being thus distinguisht from the monosyllabic *plague*, etc. :

Ague, agu ; *argue,* argu.

[Look as if sounded *agoo, argoo.* Some reformers use *ue* everywhere for *iu.* It is better to leav *ague, argue.*]

Silent *ue* should be dropt after *q* wherever the *u* is silent and the *e* not required for lengthening :

Arabesque, arabesq ; *arabesques,* arabesqs ; *burlesque ; burlesqued,* burlesqt ; *casque ; cheque,* cheq [check] ; *cinque,* cinq ; *grotesque,* grotesq ; *mosque,* mosq.

ue is not more required in the English *cinque* that in the French *cinq.* [A bad change. See under *u* p. 63. Better put in *k* (arabesk) or let the words alone for the prezent.]

y is etymologicaly wrong in *rhyme* and *thyme :*

Rhyme, rime ; *thyme,* time [?].

Rhyme is the Old English *rim*, and the current spelling is an atempt to show a conection with the Greek *rhythmós,* with which it has nothing to do. *Thyme* cums ultimately from the Greek *thýmon,* but thru Old French ; in Midl English it is writn *time.*

CONSONANTS.

dubl *b, d, g, n, r, t,* ar generaly not dubld finaly after short vowels, and the following exceptions should follow the general analogy :

Add (ad), *adds* (ads), *butt, ebb, egg, err, inn, odd, purr, whirr.*

f, l, z, shoud be writn singl (except in *-all*) :

Bailiff, bailif ; *buzz,* buz ; *dull,* dul ; *dulls,* duls ; *dulled,* duld ; *full,* ful ; *staff,* staf ; *stiff ; stuff ; stuffs ; stuffed,* stuft ; *whizz,* whiz.

ll after *a* is required to keep up the distinction between *Hal* and *hall,* etc.

Final *ck* and *ss* must be left as they ar til the use of *k* and *s* is regulated.

off must be left til *of* is alterd to *ov.*

Wherever a dubl consonant 'cums before another consonant it may often be simplified :

Battle, batl ; *kettle,* ketl ; *ripple,* ripl ; *wriggle,* wrigl ; *written,* writn.

ck and *ss* retaind, as in *picks, pickt, tassl.*

Dubl consonants ar generaly simplified in unaccented syllabls, and this rule should be carried out with *ll* and *tt* also:

Curvetting, curveting; *fidgetting*, fidgeting; *traveller*, traveler; *travelling*, traveling.

Travling is thus distinguisht from *rebelling*. The distinction between *gravelly* and *gravely* may be kept up by omitting the useless *e* in the former: *gravly, gravely*. [It is not clear whether it is intended to change the pronunciation of *gravelly* from three syllabls to two, which would be bad, as no business of spelling reform; or whether *l* in *gravly* is intended to be syllabic, *grav-l-y*. This is bad, as "caviare to the general."]

ck, as in *mimicking*, must be left.

There ar many words beginning with unaccented prefixes in which the analogy of Latin words like *accuse, commit, immure*, has led to an unhistorical dubling. Such words as *account, allow, arrive, attack*, and many others, wer taken straiht from Old French, where they had singl consonants, the dubling being a later etymological fancy. In such words as *affront* and *affair*, from *a front, a faire*, it is based on sheer ignorance; as also in the nativ English words, *accursed, afford, affright*, from Old English *acursod, aforðian, afyrht*. In short, this dubling has litl or no etymological value, and had better be simplified everywhere, as in:

Abbreviate, abreviate; *accuse*, acuze; *acquit*, aquit [no]; *address*, adress; *adjust*, ajust; *affair*, afair; *arrange, assist, attack, command, commit, connect*, etc.

Acquit, adjust, etc., ar, of course, equivalent to *accwit, addzhust*.

The dubl consonants must be kept in accented syllabls, as in *aggravate*.

Consonants may, of course, be dubld or kept dubl where necessary or convenient, as in *detter* for *debtor, added, whizzing*.

b is etymologicaly wrong in *debt, doubt, subtle*, which cum from the Old French *dete, doute, sutil*, theze being also the older English spellings. The *b* in *-mb* is etymologicaly useless, having often been added without reazon, as in *limb =* Old English *lim :*

Bomb, bom; *crumb*, crum; *debt*, det; *debtor*, detter; *doubt; dumb; lamb; limb*, lim; *numb; plumb, plumber*, plummer; *redoubt*, redout; *subtle*, sutl; *succumb*, sucum; *thumb*, thum.

Detter is a frequent Tudor spelling.

b is unhistorical in *crumb* (O.E. *cruma*), *limb* (O.E. *lim*), *numb, plumb* (O. F. *plum* cf. *plummet*), *thumb* (O. E. *púma*).

c. Initial *c* in *cinder*, from Old English *sinder*, is due to a mistaken etymology from French *cendre.*

Medial *c* is writn unetymologicaly for *s* in a large number of words, but at prezent it is not advizabl to restore the *s*, except where a consonant precedes :

Cinder, sinder; *expence,* expense; *fierce,* feerse [fierse]; *hence,* hense; *once,* onse; *pence,* pense; *scarce,* scarse; *since,* sinse; *source,* sourse; *thence,* thense; *tierce,* teerse [tierse]; *whence,* whense.

Midl English *hennes, ones, pens,* etc.

ch. For *ache* the older *ake* should be restord. *anchor* was spelt *anker* in erlier English: it has been refashiond after the Latin *anchora,* itself a corupt spelling of Greek *ágkūra.* The *h* in *chamomile, choler, cholera* (cf. *colic*), *melancholy, school, stomach,* is a late insertion paralel to that of *b* in *debt:* in Midl English theze words wer writn *camomille, coler*(*ik*), *melancolie, scole, stomak.* For *choir* the older *quire* may be revived.

ch may be retaind in *stomachic,* etc.

d. The dropping of the *e* of *-ed* involvs the change of *d* into *t* after a voiceless consonant, together with the simplification of dubl consonants.

Barred, bard; *crossed,* crost; *erred,* erd; *looked,* lookt; *pulled,* puld; *rained,* raind; *restored* [stet], restord; *slipped,* slipt; *tugged,* tugd; *whizzed,* whizd.

Length-marking *e* must be retaind, as in *chafed,* [*restored*]; also after *c* and *g,* as in *chanced, singed. ck* had better be retaind for the prezent, as in *pickt.*

g is a late insertion in *feign* (cf. *feint*), *foreign, sovereign* (on the analogy of *reign,* with which it is totaly unconected).

Feign, fein; *foreign,* forein [foren]; *sovereign,* soverein [soveren].

It has been propozed to restore Milton's *sovran,* but this is a hybrid Italian spelling. [*Soverein* may as wel be stigmatized as an anachronism. The words which in erly English wer spelt *-ain* and *-ein,* from the French, hav either taken *-ain* exclusivly, which is the common fact, or *-en,* as *citizen, denizen, dozen, sudden,* or *-an,* as *human.* The best spelling is *soveren, foren.*]

gh. The *h* is etymologicaly useless in *aghast, burgh, ghost* (O. E. *gást*).

gh in *night,* etc., is a late and clumzy substitute for Old English *h* (*niht, dohtor,* etc.). The *g* should be omitted wherever *gh* is silent. Where *gh* = *f,* it may either be provizionaly retaind or else changed to *f* (see Apendix), as has alredy been done in *draft* = *draught,* and, at an erlier period, in *dwarf* from Old English *dweorh.*

In *delight, haughty, sprightly, gh* is etymologicaly wrong, and the erlier spellings should be restord.

Aghast, agast; *daughter,* dauhter [dauter]; *delight,* delite; *eight,* eiht [eit]; *ghost,* gost; *haughty,* hauty; *high,* hih [no]; *higher,* hiher [no]; *height,* hiht [see under *ei,* p. 61]; *night,* niht [no]; *plough,* plouh [plow]; *sprightly,* spritely; *straight,* straiht [strait]; *thorough,* thuroh [thuro]; *though,* tho; *through,* thru; *weight,* weiht [weit].

h is alredy often dropt in the spellings *tho', thro'.* And see *rhyme,* p. 64.

l dropt in *could* (Old E. *cúðe*), which ows it to the false analogy of *would* and *should,* where it is historical :

p in *receipt* is a modern insertion, which has not been made in the paralel *conceit, deceit,* etc.

ph for *v* in *nephew* is unmeaning, and the French spelling should be restord : *nephew,* neveu [if the pronunciation is prezervd].

For the change of *ph* into *f* see Apendix.

q. For *quay* the older fonetic *key* may be restord.

s is wrongly inserted in *aisle* (O. F. *ele*), *demesne, island* (O. E. *igland*), *isle :*

Aisle, aile; *demesne,* demene; *island,* iland; *isle,* ile [perhaps we might wait].

In *isle* the *s* is historical in the oldest Fr., but not in E., which writes *ile, yle* from the beginning.

The *e* of *aile* is retaind to distinguish it from *ail.*

The retention of *s = z* is the cheef obstacl to the regulation of silent *e* (p. 59). As the change of inflectional *s* in such words as *dens, gives,* would involv a disproportionately large number of alterations, it is advizabl to leav it unchanged at first, as also in very common words, such as *as, is, was.*

The change is especialy recomended, 1, in distinctiv words, such as *use* (verb); and 2, in the termination *-ise :*

Abuse vb., abuze ; *advertise,* advertize ; *choose,* chooz ; *chosen,* chozen; *close* vb., cloze; *diffuse* vb., difuze ; *dissolve,* dizolv ; *excuse* vb., excuze ; *house* vb., houz ; *mouse* vb., mouz ; *pleasure,* plezure ; *raise,* raiz ; *refuse* vb., refuze ; *rise,* rize.

z is alredy in use in *freeze, frozen* (tho not in *choose, chosen*), in *size, furze, civilize,* etc. Besides its purely fonetic use in nativ English words, it is always writn both foneticaly and etymologicaly in Greek words. Hense sum object to the spelling *analyze* (Gk. *análysis*) as unetymological ; but the question is simply whether we ar to carry out the English fonetic or the Greek etymological use of *z :* if the latter, we must write *freese, sise,* etc. ; if the former, *analyze.*

sc. The *c* is eroneously inserted in *scent* (Fr. *sentir*) and *scythe* (O. E. *síðe*) The *s* is equaly wrong in *scimitar* (Fr. *cimeterre*) and *scissors.* When *sceptic* is pronounced with *k,* it should be considerd as a Greek word, and writn acordingly.

Scent, sent; *sceptic,* skeptic [?]; *scimitar,* cimitar [no]; *scissors,* cissors [no]; *scythe,* sithe.

With *skeptic* compare *skeleton ; scissors* has no conection with *scindere.* [Better not hasten to giv *c* the sound of *s.*]

tch. The *t* is unetymological, and is not more required in *witch* than in *which.* It should be dropt everywhere, which can be done without cauzing ambiguity :

Catch, cach; *catches,* caches; *fetch* ; *fetching* ; *notch* ; *pitch* ; *witch.*

w is unetymological in *whole* (O. E. *hál ;* cf. *heal*).

Whole, hole.

APENDIX.

The following changes wer advocated by so large a majority that it was thoht advizabl to include them among the imediate reforms, but to relegate them to an apendix, as being inconsistent with the principl of etymological limitation.

gh. Substitute *f* for *gh* where so pronounced, as has alredy been done in *draft* (in one of its meanings) and *dwarf :*

Chough, chuf ; *cough,* cof ; *draught,* draft ; *enough,* enuf ; *laugh,* laf ; *laughter,* lafter ; *rough,* ruf ; *slough,* sluf ; *tough,* tuf ; *trough,* trof.

The vowels in theze words hav but litl historical value. The *u* in most of them, such as *cough, laugh, trough,* is not original ; cf. O. E. *cohhettan, hlihhan, trog ; enough, tough* = O. E. *genóh, tóh rough = rúh.*

ph. If *f* wer substituted for *ph* everywhere, as in Italian, Spanish, and the Scandinavian languages, a letter would be saved, and etymology would not be apreciably obscured :

Blaspheme, blasfeme ; *camphor,* camfor ; *phantasm,* fantasm ; *philosophy,* filosofy ; *photograph,* fotograf ; *sphere,* sfere.

With *phantasm* cf. *fancy.*

IV. — *History of the a-Vowel from Old Germanic to Modern English.*

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THE subject of this paper is the history of the sound *a* in English accented syllables from the separation of the Germanic tribes till the present time. It will show both from what sounds *a* came, and

what sounds came from *a*. This growth can be most clearly seen by comparing with one another a series of stages in the history of the language. The origin and development of the Old Germanic *a* will first claim attention. For this Fick is the best, though sometimes an unreliable, authority. Any word that is common to the Old English and the East Germanic dialects, Gothic and Old Norse, may be regarded as within our scope ; so, too, words which, though they may not occur in East Germanic, are found in Pre-Germanic dialects. Second, the Old English, in which I have used the normalized spelling of the time of Alfred, and the accentuation of Zupitza. The poetry and earlier prose only have been considered. Third, the Middle English at its rise, as it appears in the Ormulum, for which I have used my own manuscript grammar of the Ormulum in the Harvard College Library. Fourth, the English of our own time. Here I have followed Brücke in the phonetic analysis, and Webster in pronunciation.

The following abbreviations have been used : O.G., for Old Germanic ; G., for Gothic ; O.N., for Old Norse ; O.H.G., for Old High German ; O.S., for Old Saxon ; O.E., for Old English ; M.E., for Middle English ; N.E., for New English.

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I. The Old Germanic **a.**

A. — Its Origin. There seem to have been two *a* sounds in Indo-Germanic, each with a distinct ablaut, which, in Greek, appeared as ā, a and o, ε. The third step, or vanishing of *a*, was usually filled by svarabhakti, or in other ways. But while the two ablauts were so sharply distinguished in Greek, the second vowel of the first (*a*) and the first of the second (*o*) became identical in O.G., and remained so in O.E., where the first ablaut appears in fōr, faran, furt, and the second in singan, sang, sungon. But while the O.G. *a* had thus a wider range than any Indo-Germanic vowel, its sphere was encroached upon by lengthening of *a*-final and by the influence of nasals, liquids, and epenthesis, which caused some confusion in the ablauts. This subject has been exhaustively treated by Johannes Schmidt in his *Vocalismus*, and may be passed over here.

B. — Its Development in O.E. From the O.G. period till the eighth century we know little of the language of our ancestors; but with the very beginning of their literature we note a most remarkable change; *a* has become almost an uncommon sound, while the O.G. vowel is represented by no less than seventeen sounds, or groups of sounds. Seven causes led to this result: 1. tone-lowering; 2. lengthening in auslaut; 3. tone-raising; 4. breaking; 5. contraction; 6. umlaut; 7. the palatalizing of preceding consonants. This was the order in which they acted, although the changes often overlapped one another; and in this order, therefore, I will consider them.

1. Tone-lowering. While the O.G. *a* was of the Italian type, the O.E. *a* had a deeper sound, as in the N.E. path. We may suppose that all *a*'s were subject to this change; but it has survived only before nasals, and before single consonants followed by *a, o, u* or followed by a vowel derived from these.

In the following list of words with O.E. *a* corresponding to O.G. *a*, I give first the O.E. word, then the East Germanic word, which gives it its claim to be considered O.G., and, lastly, the page of the third volume of Fick's *Vergleichendes Wörterbuch der Indo-Germanischen Sprachen* (3d edition), where these and other cognate words may be found.

The strong verbs are classified according to the vowel of the preterit singular in Old Germanic. Class I. had pret. sing. *a* followed (a) by a mute or fricative, (b) by a nasal or liquid, (c) by

two consonants ; II. pret. sing. *ai ;* III. pret. sing. *au ;* IV. pret. sing. *ō ;* V. pret. sing. formed by reduplication.

The letters *ae* stand for the short vowel sound of *a* in *hat.* The sound should be printed *æ.* The corresponding long sound is printed *ǣ.*

Before n :

anda, O.N. andi, 14.
anga, G. -agga, 11.
bana, O.N. bani, 196.
blanca, O.N. blakki, 221.
brand, O.N. brandr, 205.
brant, O.N. brattr, 216.
cran, O.H.G. cranuh.[1]
cranc, O.N. krankr, 49.
grandor-, O.N. grand, 109.
hana, G. hana, 61.
hand, G. handus, 61.
lang, O.N. langr, 264.
mann, G. manna, O.N. maðr, 229.
manian, O.H.G. manēn.[2]
rand, O.N. rönd, 246.
sand, O.N. sandr, 319.
scanca, O.N. in skenkja, 330.
spana, O.N. speni with umlaut, 353.
standan, G. standan, 340.
stange, O.N. stöng, 344.
strang, O.N. strangr, 348.
tang, O.N. töng, 116.
þrang, O.N. þröngr, 139.
wang, O.N. vangr, 288.
wanian, O.N. vana, 279.
And in the 1st and 3d sing. pret. of verbs of class I.c.
band, G. band, 200.
brann, G. brann, 205.
cann, G. kann, 40.
dranc, G. dragk, 153.
fand, G. fanþ, 172.
gann, G. -gann, 98.
hrand, O.N. hrätt, 83.
lann, G. -lann, 263.
rann, G. rann, 251.
sanc, G. sagq, 318.

sang, G. saggv, O.N. söng, 316.
slang, O.N. slöng, 359.
spann, G. spann, 353.
sprang, O.N. sprakk, 356.
stanc, O.N. stökk, G. -stagq, 343.
wand, G. -vand, 285.
wann, G. vann, 286.

Before m :

camb, O.N. cambr, 41.
fram, O.N. fram, G. fram, 177.
gamen, O.N. gaman, 101.
gamol, O.N. gamall, 101.
gram, O.N. gramr, 110.
ham, O.N. hamr, 64.
hama, O.N. hami, 64.
hamelian, O.N. hamla, 65.
hamm, O.H.G. hamma.[3]
hamor, O.N. hamarr, 64.
hwam, O.N. hvammr, 92.
lama, O.N. lama, 267.
scamu, O.N. skömm, 332.
nama, G. namō, 161.
tam, O.N. tamr, 117.
wamb, G. vamba, 290.
And in the 1st and 3d sing. pret. of verbs of class I.b and c.
cwam, G. qam, 53.
nam, G. nam, 160.
swamm, O.N. svamm, 362.

Before a consonant + *a* in O.E :

acan, O.N. aka, 8.
apa, O.N. api, 18.
alan, O.N. ala, 26.
bacan, O.N. baka, 197.
-dafen-, G. -dabans, 144.
-daga, O.N. -dagi, 144.
dragan, O.N. draga, 152.
faran, O.N. fara, 173.

[1] Not East-Germanic, but certainly O.G. ; *cf.* Lithuanian garny-s, 43.
[2] Not East-Germanic, but certainly O.G. ; *cf.* Latin moneo, 230.
[3] Not East Germanic, but certainly O.G.; *cf.* Greek κνημη, 65.

hara, o.h.g. hasa.[4]
galan, o.n. gala, 104.
gnagan, o.n. gnaga, 159.
grafan, o.n. grafa, 109.
hladan, o.n. hlaða, 87.
maða, g. maþa, 224.
maga, o.n. magi, 227.
mara, o.n. mara, 232.
naca, o.n. nökkvi, 157.
sacan, g. sakan, 314.
scacan, o.n. skaka, 329.
scafan, o.n. skafa, 331.
scaðan, g. skaþjan, 330.
tacan, o.n. taka, 115.
wacan, o.n. vaka, 280.
wadan, o.n. vaða, 285.
waras, o.n. verjar.[5]

Before a consonant + *o* in o.e.:

afor, o.n. afar, 19.
alor, o n. ölr, 27.
atol, o.n. atall, 14.
daroð, o.n. darraðr, 146.
hafoc, o.n. haukr, o.h.g. habuh, 64.
hafola [6]
hagol (also haegl), o.n. hagl, 60.

[4] Not East Germanic, but certainly o.g.; cf. Skt. çaça, 73.

[5] Cf. the Lat. -varii in German proper names ; for instance, Angri-varii, 291.

[6] Not East Germanic, but certainly o.g.; cf. κεφαλή, Skt. kapāla, 62.

gafol, o.n. gafl, o.h.g. gabala, 100.
lago, o.n. lögr, 262.
sadol, o.n. söðull, 318.

Before a consonant + *u* in o.e.:

apulder, o.n. apaldr, 18.
cwalu, o.n. kvöl, 54.
faru, o.n. för, 174.
hasu, o.n. höss, 74.
lagu, o.n. lög, 261.
nafu, o.h.g. nabo.[7]
talu, o.n. tal, o.s. tala, 120.
þracu, o.n. þrekr with umlaut, 138.
walu, o.n. völr, g. valus, 297.

Before a consonant + -*ia*- for older -*ai*- or -*ō*- in weak verbs.

hatian, g hatan, o.n. hata, 60.
lapian, o.n. lepja, m.h.g. leffen with umlaut, 266.
laþian, g. laþōn, o.n. laða, 263.
sparian, o.n. spara, 354.

Before a consonant + *e* for older *a* or *u*.

hacele, g. hakuls, o.n. hökull, 58.
nafela, o.n. nafli, o.h.g. nabalo, cf. ὀμφαλός, 160.

[7] Not East Germanic, but certainly o.g.; cf. Lettish nabà, 160.

In comparison, declension, and conjugation, *a* takes the place of o.g. *a* after a single consonant followed by the endings -a, -as, -ode, -or, -on, -ost, -u, -um ; -e for g. -ō, -ai ; -ena for g. -ōnō ; -ende for g. -and. Thus daga, dagas, dagum, from daeg ; fatu, fatena, but faet ; macode ; magon, but maeg ; hraðe, hraðor, hraðost, but hraeð ; farende, fare, for g. farands, farai. Before an o.e. *e* there is some vacillation even in early documents.

Except in these cases *a* is rare in o.e. The only other cases of o.g. *a* with this sound in o.e. which are known to me are :

asce,[8] o.n. askr, 29.
wag,[9] g. vaddjus, 302.

scralletan,[10] o.n. skröllta, 339.
ac (also oc), g. ak.

[8] Also axe and aesce.

[9] Also wah and waeg.

[10] Twice in poetry, Grein, *Gloss.* ii. 411.

And in the following cases in words confined to prose:

af- also aef-, G. af-, 18.

crabba,[11] O.N. krabbi, O.H.G. chrepazo, 50.

sal,[12] O.N. salr, masculine, 320.

[11] The etymological spelling would be with one *b*; hence *a* for *ae*.

[12] Neut., also sael masc. and sele fem.

wascan,[13] O.N. vaska, 301.

To these Fick adds four others unknown to me in O.E :

clappan, O.N. klappa, O.H.G. chlaphōn, lappa, O.N. lappi, 266; *cf.* λοβός. [51.

flat, O.N. flatr, 194.

wase, O.H.G. waso, O.N. vos, 301.

[13] Poetry has waesced once. Grein, *Gloss.* ii. 641.

Occasionally *a* is found for *éa* and *ae*, but this has no historic importance; thus, all for éall, al for ael, and the like.

Before nasals an *a* may appear as *o*; for instance, monn, hond, nom, for and with mann, hand, nam. This occurs in a few other words also.

oc (also ac), G. ak, O.H.G. oh.

of (also af-, aef-), G. af, 18.

nosu (also naes), O.N. nös, O.H.G. nasa, rodor, O.N. rödull, O.S. radar. [162.

In the O.E. words not certainly O.G., the same principles govern the use of *a*, and vacillations are equally uncommon.

2. Lengthening of final *a*. The beginning of this process is Pre-Germanic, but it survived the discarding of final consonants in West Germanic. The Germanic instances are:

bā, G. ba, 196.

hwā, G. hwas, 90.

swā, G. swa, 360.

twā, G. twa, 126.

When the word was not accented, it was not lengthened, but the vowel *a* became *e*. Thus the conjunction ge, G. ja-h, O.S. ja 243.

3. Tone-raising changed an O.G. *a* to *ae* before single final mutes or fricatives, except *w*, *h*, and before groups of double consonants except those beginning with *h*, *r*, *l*, and also before single consonants followed by *a* whenever this was reduced to *e* before the tone-raising tendency ceased. It is occasionally used for and with the umlaut *e*; for instance, gaest or gest, G. gasti-; faered or ferd, G. farip. The occasional use of *a* for *ae* has been already spoken of. Kentish glosses write *e* for *ae*.

The following O.G. words have *ae* in O.E.:

Before mutes:

haep, O.N. happ, 62.

aepl, O.N. apal-grār, 18.

haebban, G. haban; stem habai, 62.

aet, G. at, O H.G. az, 13.

faet, O.N. fat, 171.

faet, O.N. fet, 171.

haett, O.N. hattr, 60.

hwaet, O.N. hvatr, 91.

waeter,[14] O.H.G. wazar.

[14] Not East-Germanic, but certainly O.G.; *cf.* Skt. udra, 284.

blaed, O.N. blað, 219.
glaed, O.N. glaðr, 112.
waed, O.N. vað, 285.
blaedre, O.N. blaðra, 219.
faeder, O.N. faðir, G. fadar, 167.
gaedeling,[15] G. gadiliggs, 98.
naedre, O.N. naðr, 156.
baec, O.N. bak, 198.
blaec, O.N. blakkr, 221.
-braec, O.N. brak, 215.
laec, O.N. lakr, 261.
·wlaec,[16] O.H.G. welc.
wraec, G. vraks, 308.
aecer, G. akrs, 8.
aecern, O.N. akarn, G. akrana-, 8.
waecnian, O.N. vakna, 281.
aeg, O.N. egg, O.H.G. ei, 13.
daeg, O.N. dagr, 143.
waeg, G. vaddjus, O.N. veggr, 3˙2.
faegn, O N. feginn, 170.
faegr, O.N. fagr, G. fagrs, 170.
haegl, also hagal, O.N. hagl, 60.
maegn, O.N. magn, 227.
maegr, O.N. magr. 228.
naegl, O.N. nagl, 159.
waegn, O.N. vagn, 283.

Before fricatives:

baeð, O.N. bað, 197.
hraeð, O.N. hraðr, 82.
faeðm, O.N. faðmr, 173.
maðel, G. maþla-, O.N. māl, 229.
glaes, O.N. gler-, 104.
graes, O.N. gras, 110.
naes, O.N. nös, 162.
hwaes, O.N. hvass, 92.
aesc, O.N. askr, 29.
baest, O.N. bast, 200.
draeste,[17] O.H.G. trestir.
faest, O.N. fastr, 171.
hlaest, O.N. hlass, 87.
maest, O.N. mastr, 237.
raesn, G. razn, 246.
aef, G. af, 18.

haef, O.N haf, 63.
staef, O.N. stafr, 345.
graeft, O.N. gröptr, 109.
haefr, O.N. hafr, 62.
ˉhaeft, O.N. haptr, 63.
hraefn, O.N. hrafn, 83.
þraeft, O.N. þrapt, 139.
waefre, O.N. vafr-logi, 289.

Before liquids:

ael, O.N. alr, 28.
hwael, O.N. hvalr, 93.
wael, O.N. valr, 297.
aerende, O.N. örendi, O.H.G. arunti, 21.
faer, O.N. far, 174.
spaer, O.N. sparr, 354.
waer, O.N. vör, 292.

Further:

In the 1st and 3rd pret. sing. of strong
verbs, class I., except where the vowel
is followed by a nasal or liquid:
gaet, also geát, G. bi-gat, 98.
maet, G. mat, 223.
saet, G. sat, 316.
baed, G. bad, 200.
traed, O.N. trað, 125.
braec, G. brak, 215.
raec.[18]
spraec.[19]
wraec, G. vrak, 308.
laeg, G. lag, 261.
waeg, G. vag, 282.
gaef, also geáf, G. gab, 100.
swaef, O.N. svaf, 361.
waef, O.N. vaf or öf, 289.
cwaeð, G. qaþ, 53.
laes, O.N. las, 267.
naes, G. -nas, 161.
waes, G. vas, 300.
stael, G. stal, 347.
baer, G. bar, 202.
scaer, O.N. skar, 332.
taer, G. -tar, 118.
baerst, O.N. brast, 217.

[15] M.H.G. getelinc with umlaut.
[16] Not East-Germanic, but certainly O.G.; cf. Church Slavonic vlaga, 298.
[17] Not East-Germanic, but certainly O.G.; cf. Church Slavonic droštija, 154.

[18] The preterit does not occur in East-Germanic, cf. G. rakjan.
[19] Not East-Germanic, but cf. Lithuanian spragù.

braegd, O.N. brã, 215.

fraegn, G. frah, O.N. frã, 189.

Residua:

In the passive participle of some verbs of class IV., for and with *a*. For instance: hlaedan, also hladen, O.N. hlað-inn; flaegen, also flagen, O.N. fleginn; slaegen, also slagen, O.N. sleginn.

We find *ae* where we should expect umlaut in aelf, usually elf, O.N. ãlfr, M.H.G. alp without umlaut, 28.

aeled, O.N. eldr, 27; *cf.* also aelan, which is not O.G., but is a cognate word.

haele, O.N. halr, 69. The vowel corresponds, however, to the original *a*-stem; the ending to a new *ja*-stem. *cf.* the derivative haeleð.

Umlaut would not be irregular in the following words from the principal list: aeg, waeg, wlaec, faet, gaedeling, draeste.

We find ae where we should expect breaking, with or without umlaut, in haerfest, O.N. haust, N.H.G. herbst, 68, haern, O.N. hrönn, O.H.G. harn, 68; baelg (also bylig), only in prose, G. balgi-, 208.

The use of *ae* in words not certainly O.G. follows the same principles which govern the O.G. words.

4. Breaking of *a* to *éa* occurs before O.G. *r, l, h* followed by a consonant, before *h*, and occasionally before a mute followed by *o* or *u*. The breaking appears as *éa* before *w*, and as *i* in some cases before *ht*. The breaking is due to an *u*-sound, which was either present in the following syllable or was produced from *l, r,* or *h*, by svarabhakti. This development is common to most Indo-European languages.[*] The vowel thus formed changed its position, and became affixed to the preceding vowel, producing a^u from *a*, which was raised to *éa* by the same tendency that produced *ae* from *a*. In a few cases, however, the tone-raising has not been completed, and we find *éo* for *éa*. All these have the regular forms in *éa* except réord, G. razda, 252, and éornest, superlative to G. arni-, O.N. ern with umlaut. The breaking is sometimes spelled *e* in the Mss., and *ae* in Kentish and Northumbrian.

Breaking occurs in the following O.G. words:

With mutes:

béadu, O.N. böð, 196.

éatol, also atol, O.N. atall, 14.

téagor, also téar, G. tagr, O.N. tãr, 115.

With fricatives:

éafora, O.S. abharo.[20]

héafoc, O.N. haukr, 64.

[20] Not East Germanic, but certainly O.G.; *cf.* Old Baktrian apara, 19.

héafola, certainly O.G.; *cf.* κεφαλή and Skt. kapāla, 62.

héafod, O.N. höfuð, 62.

héasu, usually hasu, O.N. höss, 74.

héaðor, certainly O.G.; *cf.* κότυλος, 61.

héaðu, O.N. Höðr, 60.

With liquid + consonant:

déareð, also daroð, O.N. darraðr, 146.

déar, G. ga-dars, 145.

héarpe, O.N. harpa, 68.

[*] See Schmidt, *Vocalismus*, II.; Braune, *Quantität der Endsilben;* Paul und Braune, *Beiträge*, VI. 46 ff.

wéarp, o.n. varp, 295.
swéart, o.n. svartr, 362.
béard, o.h.g. bart, certainly o.g.; *cf.* Church Slavonic, brada, 207.
géard, o.n. garðr, g. gards, 102.
héard, o.n. harðr, 68.
méarc, o.n. mörk, g. marka, 233.
héarg, o.n. hörgr, 67.
méarg, o.n. mergr, o.h.g. marg, 236.
éarfoð, g. arbaiþs, o.n. erfiðr, 25.
þéarfu, o.n. þörf, 132.
cnéar, o.n. knörr, 48.
éaru, o.n. örr, 21.
géaru, o.n. görr, 102.
spéarwa, also spéara, o.n. spörr, g. sparva, 354.
éarh, o.n. ör ; *cf.* g. arhvazna, 24.
féarh, o.h.g. farh.[21]
méarh, o.n. marr, o.h.g. marah, 234.
céarl, also céorl, o.n. karl, 43.
béarm, o.n. barmr, 203.
éarm, o.n. armr, 22.
féarm, also féorm, o.n. farmr, 174.
héarm, o.n. harmr, 69.
þéarm, o.n. þarmr, 131.
wéarm, o.n. varmr, 292.
béarn, o.n. barn, g. barn, 202.
éarn, o.n. örn, 21.
géarn, g. garn, 101.
scéarn, o.n. skarn, 333.
wéarn, o.n. vörn, 291.
héalt, o.n. haltr, g. halts, 72.
méalt, o.n. malt, 236.
séalt, o.n. salt, 321.
wéaltian, g. valtjan, 298.
béald, o.n. ballr, *cf.* g. balþaba, 209.
céald, o.n. kaldr, g. kalds, 44.
éald, g. alds, 26.
féaldan, o.n. falda, g. falþan, 182.
géaldor, o.n. galdr, 104.
héald, o.n. hallr, 71.
héaldan, o.n. halda, g, haldan, 73.
stéaldan, g. staldan.
wéaldan, g. valdan, o.n. valda, 299.
wéalcan, o.n. valka,[22] 298.
éalgian.[23]

géalga, g. galga, o.n. gālgi, 105.
céalf, o.n. kālfr, 45.
héalf, o.n. hālfr, g. halbs, 73.
séalfian, g. salbōn, 321.
béalu, o.n. böll, g. balva-, 209.
éalu, o.n. öl, 27.
féalu, o.n. fölr, 183.
héals, o.n. hāls, g. hals, 71.
séalh, o.h.g. salaha, o.n. selja, 320.
Wéalh, o.h.g. Walah, o.n. in valskr, 299.
céallian, o.n. kalla, 45.
éall, o.n. allr, g. alls, 26.
féallan, o.n. falla, 183.
géalla, o.n. gall, o.h.g. galla, 103.
héall, o.n. höll, 70.
stéall, o.n. stallr, 341.
héalm, o.n. hālmr, 70.
séalma, o.s. salma.[24]

Before *h* and *h* + consonant :

éah, o.n. ā, g. ahva, o.s. aha, 10.
genéah, g. ganah, 157.
séah, g. sahv, 315.
þéah, o.n. þā and þō, 127.
éax, g. aqizi, 8.
féax, o.n. fax, 170.
léax, o.n. lax, 261.
séax, o.n. sax, o.s. sahs, 315.
wéaxan, o.n. vaxa, 281.
éahta, o.n. ātta, g. ahtau, 11.
hléahtor, o.n. hlātr, o.h.g. hlahtar, 87.
méaht,[25] g. mahti-, 227.
méaht, also miht,[26] g. maht, 226.
néaht,[27] g. nahti-, o.n. nātt, 158.
ombéaht,[28] g. andbahta-, 16.

Breaking occurs in the preterits of the following o.g. strong verbs, class I. c :

béalg, o.h.g. balch.[29]
swéalh, o.n. svalg, 364.

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[21] Certainly o.g.; *cf.* Latin, porcus, 178.
[22] The o.e. verb is strong; the o.n. weak.
[23] Certainly o.g.; *cf.* g. alhs, and ἀρκέω.
[24] Certainly o.g.; *cf.* σέλμα, 320.
[25] Also míeht and miht, umlaut.
[26] And méahte, also mihte (g. mahta, the 2d sing. pres., and pret. of maeg), have *i*, after the analogy of the umlauted noun.
[27] Also níeht and niht, umlaut.
[28] Also ombíeht and ombiht, umlaut.
[29] Not East Germanic, but certainly o.g.; *cf.* Prussian balg-nas, 208.

héalp, G. halp, 73.

swéalt, O.N. svalt, 363.

swéall, O.N. svall, 363.

géald, G. -gald, 105.

féalh, G. falh, 181.

béarg, G. barg, 206.

hwéarf, G. hvarb, 93.

swéarf, O.N. svarf, 363.

wéarð, G. varþ, 294.

wéarp, G. varp, 295.

Before *w* the breaking was *ēa*, not *éa;* for strong preterits so formed have passive participles like verbs with preterits in *ēa*. These are : cēaw, *cf.* Church Slavonic zivati, Fick, II. 351 ; hrēaw, *cf.* κρού-ω, κρο-αίν-ω, Fick, I. 32, 539 ; and, perhaps brēaw, *cf.* βρύ-ω, de-fon-tum, Fick, I. 696 ; Schmidt, *Vocalismus*, II. 269. These strong verbs are unfortunately not present in East Germanic ; but the type occurs in G. bliggvan, preterit blaggv. In other cases of breaking before *w*, the East Germanic has either *av*, which in O.N. becomes *ā*, or *aggv*, O.N. *ögg*, and this in West Germanic became auw = O.E. ēaw. In the same way that *éo* came to be used for *éa*, we have *ēo* for *ēa* in ēowe, O.H.G. awi, G. avi-str, 29, and in hrēow, O.N. hrār, 84. The following O.G. words also show this breaking in O.E.:

dēaw, O.N. dögg, 146.

fēawe, O.N. fāir, G. favai, 183.

glēaw, O.N. glöggr, 112.

hēawan, O.N. höggva, 57.

hnēaw, O.N. hnöggr, 81.

strēaw, also strēow, O.N. strā, 346.

Breaking is never found except under these conditions. In good Mss. it is rarely omitted. The only O.G. words in which it is usually omitted are noticed in 1 and 3.

5. Contraction of O.G. *a* with a following nasal + fricative or aspirate to *ō*, and of O.G. *a* with a following *h* + vowel to *ēa*, are regular in O.E. An *anh* + vowel becomes *ō*. Sometimes *g* is treated in the same way as *h*. The instances of this contraction are :

O.G. an = ō :

ōs, G. Ansi-, O.N. āss, 18.

gōs, O.N. gās, O.H.G. gans, 99.

ōðer, G. anþar, O.N. annarr, 16.

sōð, O.N. sannr, 318 ; *cf.* Skt. sant.

tōð, G. tanþus, O.N. tönn, 113.

brōhte, G. brāhta ; the nasal is found in the pres. bringan.

þōhte, G. þāhta, pres. þincan.

hōh, O.N. in hoell = O.E. hēla, with umlaut, 59.

O.G. anh + vowel = ō :

fōn, G. fāhan ; the nasal is found in the part. fangen, 170.

hōn, G. hāhan, O.N. hanga, 58.

There are no certainly O.G. words with *m* + fricative or aspirate following on *a* ; but sōfte, O.H.G. samfto, makes it probable that *m* and *n* would be similarly treated.

O.G. *ah* + vowel = *ēa* :

flēan, O.N. flā ; *cf.* participle flaegen, 193.
slēan, G. slahan ; *cf.* participle slaegen, 35.
þwēan, G. þwahan ; *cf.* participle þwae-gen, 142.
ēa, also éah, O.N. á, G. ahva-, 10.

O.G. *ag* + vowel = *ēa* :

bēam, G. bagms, 199.
tēar (also téagor and tāēr), G. tagrs, O.N. tār, 116.
gēan, also gān, gēn, giēn, gagn, gegn, geágn. See Kuhn's *Zeitschrift*, xxvi. 36.

6. Umlaut is the epenthesis of an O.G. *i, j,* which causes a modification of the preceding vowel from *a* or *ae* to *e*, from *ea* to *ie* and *i* (*y*), from *ō* to *ē*, and from *ēa* to *ie* (*ȳ*). As we have seen, *e* is occasionally written *ae ;* and *ie, ie* appear usually in later O.E. as *y, ȳ ;* the umlaut is also occasionally omitted. See 3.

Umlaut of *a* occurs in the following O.G. words :

Before nasals :

benn, G. banja, 196.
benc, O.N. bekkr, O.H.G. banch, 201.
bendan, G. bandvjan, 201.
ende, G. andeis, 17.
ened, O.N. önd, O.H.G. anut ; *cf.* Lithuanian anti-s, 17.
fenn, G. fanja-, 173.
feng, O.N. fang, O.H.G. fang, 170.
genge, O.N. gengr, O.H.G. gengi, 99.
grennian, O.N. grenja, 109.
hengest, O.N. hestr, O.H.G. hengist, 59.
hlence, O.N. hlekkr, 90.
mene, O.N. men, O.S. meni, 231.
mennisc, G. mannisks, O.N. menniskr, 230.
scencan, O.N. skenkja, 330.
strenge, O N. strengr, O.H.G. strang. 348.
þennian, G. þanian, O.N. þenja, 129.
gremman, G. gramjan, 110.
hlemman, O.N. hlemma, O.H.G. hlamōn, 87.
lemman, O.N. lemja, 266.
hlem, O.N. hlemmr, G. hlamma, 87.

Before mutes and fricatives :

hrepian, O.N. hreppa, 83.
sceppan, also sciéppan, G. skapjan, 331.
hebban, G. hafjan, 62.
betra, G. batiza, 199.
fetel, O.N. fetill, O.H.G. fazzil, 171.
flet, O.N flet, O.H.G. flazi, 194.
hete, G. hatis, 60.

hwettan, O.N. hvetja, O.H.G. hwazzan. 91.
nett, G. natja-,160.
bedd, G. badja-, 200.
hnecca, O.N. hnakki, 81.
bec and bece, O.N. bekkr, O.H.G. bach, 197.
-brec (and -braec), O.N. brak, 215.
þeccan, O.N. þekja, O.H.G. dachjan, 127.
ecg, O.N. egg ; *cf.* Latin acies, 10.
ege, G. agis, 12.
gegn, O.N. gagn, M.H.G. gegen. See I. B. 5.
hefig, O.N. höfugr, O.H.G. hebig, 62.
efnan, O.N. efna ; *cf.* G. aban-, 19.
best, G. batists, 199.
gest, G. gasts, 106.
sceþþan, also sciéþþan, G. skaþjan, 330.

Before single liquids :

dweljan, O.N. dvelja, O.H.G. twaljan, 155.
hel, G. halja, 69.
elles, G. aljis, 28.
scel, O.N. skel, O.H.G. skala, 334.
sele, O.N. sel, O.S. seli, 320.
tellan, O.N. telja, O.H.G. zeljan, 120.
bere, O.N. barr, G. in barizeina-, 202.
berie, G. basja-, 210.
berian, O.N. berja, O.H.G. berjan, 204.
here, G. harjis, 65.
mere, G. mari-, O.H.G. mari, 232.
swerjan, G. svaran, 362.

Before *h*, *l*, *r*, + consonant, and before *h*, we have *ie* for *ea*.

ſerfe, G. arbja-, 25.
mſerran, G. marzjan.
mſere, O.N. merr, O H.G. merha, 234.
ſeldra, G. alþiza 26, and ſeldest, G. alþists.
ſeldo, O.N. elli, O.S. eldī, O.H.G. altī, 27.
ſelfet, O.N. ālft, O.H.G. albiz, 28.
hlſehhan, G. hlahjan, 87.
mſeht, G. mahts ; see 4.
ńſeht, G. nahts ; see 4
ombieht, G. andbahts ; see 4.

For O.G. an = O.E. ō.

ēst, G. ānsti-, 18.
hēla, O.N. hoell, 59 : see 5.
nēđan, G. nanþjan, O.N. nenna, 160.

For West Germanic am = O.E. ō.

sēfte, O H.G. samfti ; *cf.* sōfte, p. 77.

For O.G. av = O.E. ēaw.

hſege, G. havi, O.N. hey, O.H.G. houwe, 57 ; *cf.* hēawan.
ſeg-, O.N ei, 10 ; *cf.* ēa, p. 78.

Umlaut occurs also in the dative singular and nominative and accusative plural of nouns whose stems end in a consonant. For instance, mann has menn in these cases ; gōs has gēs ; tōđ has tēđ ; and so on. In the conjugation, the 2nd and 3rd present indicative singular of class IV. usually have the umlaut of *a* to *e* and *ō* to *ē*. For example, faran has ferst, ferđ (but also sometimes *ae* and *a* for *e*) ; hōn has hēhst hēhđ. The umlaut in the inflection is, however, less active than in O.H.G. or O.N.

7. Preceding consonants exercise an influence on O.G. *a* only in the case of *w*, *g*, *c*, *sc*, *sl*. This is chronologically the last O.E. change and is in no case regularly carried out. *Wa* is contracted to *o* in the preterit of cuman, com (also cwom) for *cwam, G. qam. The palatals *g*, *c*, *sc* (and to these we must add *sl*) could develop after them a semivocalic sound, such as is heard in N.E. sky, kind, when these are pronounced skyai, kyaind. This is expressed in O.E. by *ed* for *a* and *ae*, *eo* for *o*, *ie* for *e*, *ea* for *ā*. Occasionally we find *a* written for *ed* in words where the regular spelling would be *ae* ; but this seems to be a mere graphical error. The following O.G. words have these palatalized forms in O.E.

Before nasals :
sceámu ; also scamu, scomu, sceómu, O.N. skömm, 332.
sceámjan, also scamjan, scomjan, sceómjan, G. skaman, 332.
sceánca, O.N. in skenkja, 330.
geóng, also gang, O.N. gangr, 99.
sceánde, scand, sceónd, G skanda.

Before liquids, mutes, and fricatives :
ceáru, G. kara, O.H.G. chara, 42.
ceárjan, G. karōn, 42.

geáp, O.N. gap, 100.
geát, also gat, O.N. gata, 98.
geátwe, G. gatvō, 98.
sceáđa, also scađa, O.N. skaþi, 330.
sceáđan, and, with umlaut, sceđđan, sciéđđan, scyđđan, G. skaþjan, 330.
sceácan, also scacan, O.N. skaka, 329.
sceádu, also scaed, G. skadus.
sceál, G. skal, 334.
sceáft, G. skafts, 331.
-sceáp, O.N. sköp, 331.
sceápen, G. skapans, 331.

sceát, G. skatts, 330.
sleác, also slaec, O.N. slakr, 358.

    In the preterits :

geáf, G. gab, 100.
-geát, G. -gat, 98.

    From the umlaut e :

sciél, also scel, O.N. skel, 334.

sciéppan, also sceppan, scippan, scyp-
    pan, G. skapjan, 331.
sciéddan, see sçeádan.

    From the final ā :

geā, G. ja-h, O.H.G. ja, 243.

Owing to a confusion of *éa* with *ed*, some words are occasionally spelled with *a* in place of the regular *éa*; thus galdor occurs for géaldor, and galga for géalga. It is sometimes doubtful on which letter the accent should be placed; for instance, in geágn and giēn; see 5, end.

8. Thus by seven processes there were successively developed from O.G. *a*, first *a* and *o*, then *ā*-final, then *ae* and the breakings *éa* (*éo*, *i*), *ēa* (*ēo*). Contractions produced *ō*, *ēa*; umlaut, *e*, *ie*, *ē*, *ie*. The palatal semivowel produced *ed* (*eó*), *ié*, *eā*, and once perhaps *īē*.

No Germanic dialect, except the O.N., is as complex in its development; none is so regular. Restless energy and keen grammatical consciousness are characteristic of this period; but the catastrophe of the conquest was soon to change their character and language, and check or divert the forces, the working of which has been thus far our subject.

II. The Old English **a**, its Origin and Development.

1. All O.E. *a*'s which can be traced to the O.G. will be found to correspond to O.G. *a ;* those of more recent origin, always to West Germanic *a ;* those of foreign origin, to *a* in the language from which they were taken. Examples of *a* for O.G. *a* have been given in I. B. 1. West Germanic examples are very common, but as they illustrate no new principle I omit them here.

2. The Ormulum is the first important literary work of the M.E. period. It is probably the manuscript of the author himself; and, as the author is a painstaking orthoepist, we may take his work with some confidence, as representing the pronunciation of his time and dialect. He distinguishes short vowels by doubling the following consonants, but it requires only the most cursory examination to see that the relations of quantity are hopelessly confused. All O.E. *a*'s in accented syllables are represented by *a* in the Ormulum. Examples will be given in Part III.

3. In N.E., since the spelling is not phonetic, the letters and sounds must be treated separately.

The O.E. *a* is represented in 126 words, with the spelling *a* in every case except then, when, hemp, pebble (þanne, hwanne, hanep, papol), where the N.E. spelling is due to an *ae* for *a*, which appears in these words in very late O.E., and produces a secondary spelling *e* in M.E., which has now become regular.

These words are pronounced with vowel articulations, varying from the dark *a* in *swan* to the bright *a* in *lane*, — the determining power being in every case the accompanying consonants. Before all single nasals, liquids (except *r*), mutes, and fricatives, O.E. *a* is pronounced *e*. The examples are :

Before nasals :	Before mutes :	
came, cam (com).	ape, apa.	naked, nacod.
game, gamen.	gape, gapian.	rake, racian.
lame, lama.	shape, scapan.	sake, sacu.
name, nama.	taper, tapor.	shake, scacan.
same, same.	gate, gat (for geát).	snake, snaca.
shame, scamu.	hate, hatian.	stake, stacu.
tame, tama.	late, lata.	wake, wacian.
bane, bana.	mate, gemaca.	
crane, crana.	cradle, cradol.	Before fricatives :
lane, lane.	lade, hladan.	chafer, cafor.
mane, mane.	made, macode.	crave, crafian.
vane, fana.	shade, scadu.	gave, gaf (for geáf).
wane, wanian.	wade, wadan.	grave, grafan.
	flay, flagen (part.).	behave, behafa (imv.).
Before liquids :	slay, slagen (part.).	nave, nafu.
	bake, bacan.	shave, scafan.
nightingale, nihtegale.	quake, cwacian.	staves, stafas.
scale, scalu.	make, macian.	bathe, baðian.
tale, talu.		

Before *r*, the vowel sound approaches more nearly to *a*, and may be represented by *eʳ*. The examples are :

care, caru (for ceáru).	hare, hara.	stare, starian.
fare, faru.	spare, sparian.	share, scaru.

Before a nasal followed by a consonant or a syllable, the pronunciation is *ae*. The examples are :

and, and.	hand, hand.	plant, plantian.
answer, andswarian	land, land.	angle, angel.
band, band.	sand, sand.	fang, fang.
brand, brand.	stand, standan.	gang, gang.
candle, candol.	strand, strand.	hang, hangen (part.).

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sang, sang.	stank, stanc.	span, spann.
sprang, sprang.	thank, þancian.	than, þanne.
wrang, wrang.	anvil, anfilt.	ganet, ganot.
ancle, anclēow.	ban, bann.	lamb, lamb.
drank, dranc.	can, cann.	cram, crammian.
lank, hlanc.	began, be-gann.	dam, damm.
rank, ranc.	man, mann.	ram, ramm.
sank, sanc.	pan, panne.	swam, swamm.
shank, scanc.	ran, rann.	hammer, hamor.
shrank, scranc.		

Before *s* + consonant the original sound of *a* is preserved. The examples are :

ass, assa.   castlè, castel.   flask, flasce.   last, latost.

Before absorbed *g, f, w*, the spelling is *aw* and the sound *oᵃ*. The examples are :

dawn, dagenian.	law, lagu.	saw, sage.
draw, dragan.	maw, maga.	hawk, hafoc.
gnaw, gnagan.	saw, sagu.	awl, awel.
haw, haga.		

After *w* any one of these sounds *may* appear as *ρ*, but does not always do so. Compare this with the influence of *w* in o.e., I. B. 7.

swan, swan.   wan, wann.   wander, wandrian.   wash, wascan.

The following ten words do not follow the principles just given. We have *ae* where we should expect *e* in *cat*, catt, *crab*, crabba, *ashes*, ascas, *saddle*, sadol. The first three are irregular in o.e., having *a* for *ae*. The n.e. sound is due to secondary forms in *ae* in o.e., which would be regular. *Saddle* is unexplained ; the regular pronunciation would be as in *cradle* and *naked*. We have *eᵃ* where we should expect *e* in *pebble*, papol, which is also irregular in its consonants, and is rare in o.e. and m.e. We have *oᵃ* where we should expect *e* in *alder*, alor, owing to the introduction of *d ;* for following *ld* always lowers the sound of the preceding vowel — cf. *child*, *cold*, but, *hilt, calf.* We have *eᵃ*, where we should expect *ae*, in *hemp, then,* and *when,* which have already been spokeu of, p. 81, and in *many,* manig, through the analogy of *any,* āenig.

III. The Middle and New English **a.**

1. In the Ormulum, *a* corresponds to *a* regularly, and is very often used for *ae, éa, ā, eā,* and less frequently for *e, āē, ēa, ēo.* The short *a* is distinguished from the long by the doubling of the following

consonant, but the relations of quantity are much disturbed. Examples are :

M.E. a = O.E. a.

atell, atol.
care, caru.
charig, carig.
cnape, cnapa.
draghenn, dragan.
amang, on gemong.
anan, an ān (for on ān).
ange, anga.
band, band.
farenn, faran.
gang, gang.
hatenn, hatjan.
ladenn, hladan.
manig, manig.
-ware, waras.
annd, and.
hannd, hand.
ganngenn, gangan.
lanngedd, from lang.
a-manng, on gemong.

M.E. a = O.E. ae.

aþell, aeðel.
brasene, braesen.
dale, dael.
daghess, daeges (gen.).
faderr, faeder.
shaþig, scaeðig.
affterr, aefter.
allmesse, aelmesse.
bacc, baec.
brass, braes.

cwaþþ, cwaeð.
maggden, maegden.
fatt, faet.

M.E. a = O.E. éa.

ald, éald.
axe, éax.
cwaldenn, cwéaldon.
fald, -féald.
hald, -héald.
bridale, brȳdéalu.
all, éall.
callf, céalf.
cwarrterrne, cwéartern.
forrahþt, forréaht.
hallf, héalf.
warrd, wéard.

M.E. a = O.E. ã.

an, ãn.
a, ã.
awegg, ãweg.
abad, ãbãd.
gal, gãl.
laf, hlãf.
laþ, lãð.
mal, mãl.
slaw, slãw.
laþþe, lãð.
maddmess, mãðmas.
wraþþenn, wrãðjan.
ann, ãn.
atterr, ãtor.
hallghenn, hãlgian.

M.E. a = O.E. āē.

anig, āēnig.
mast, māēst.
slap, slāēp.
agg, āēg.
mannsenn, -māēnsumjan.
magg, māēg.
tahhte, tāēhte.
lasstenn, lāēstan.

M.E. a = O.E. ēa.

drah, drēah.
chappmann, cēapmann.
tawwenn, tēawjan.

M.E. a = O.E. ēo.

strawwenn, strēowjan.

M.E. a = O.E. e.

aghe (usually egge), ege.
forrwarrgedd, -werged.
marrgrote, meregrote.[30]
banncess, benca.[31]

Contractions.

nafe, ne haebbe.
nass, ne waes.
narrt, ne éarrt.
nan, ne ãn.

[30] Due to French influence.
[31] More likely from the Dutch *bank*.

2. In N.E. the letter and the sound *a* must be separately treated. I begin with the letter. This occurs in 332 O.E. words. It will be enough to give a list of these, classified according to the pronunciation and according to the consonants which follow the *a*, omitting the words which have already appeared in the list of N.E. words in II. 3. The limitations and causes of the use of the sound *a* must be examined more carefully.

N.E. *a* is pronounced *e* in 50 words (p. 81) with the spelling *a* in O.E. and also in the following 46 cases :

N.E. a = O.E. ae.

dale, dael.
whale, hwael.
grave, graef.
haven, haefn.
raven, hraefn.
day, daeg.
may, maeg.
lay, laeg.
flay, from flaegen.
slay, from slaegen.
hail, haegl.
nail, naegl.
snail, snaegl.
tail, taegl.
fain, faegn.
main, maegn.
wain, waegn.

again, ongaegn.[33]
brain, braegn.
maid, maegð.
acre, aecer.
acorn, aecern.
spake, spraec.
brake, braec.
blade, blaed.
hazel, haesl.

N.E. a = O.E. e.

ail, eglan.
sail, segel.
-blain, blegen.
lain, legen.
rain, regen.
thane, þegn.

[33] Also pronounced eᵃ, *q. v.*

twain, twegen.
braid, bregdan.
lay, lecgan.
play, plegan.
say, secgan.
way, weg.

N.E. a = O.E. éa.

ale, éalu.
bale, béalu.

N.E. a = O.E. āē.

ate, āēt.
clay, clāēg.
gray, grāēg.
wave, wāēg.
lady, hlāēfdige.

N.E. a = O.E. ie.

hay, hīege.

N.E. *a* is pronounced eᵃ in 7 words (p. 81) with O.E. *a*, and in the following 10 cases:

N.E. a = O.E. ae.

again, on gaegn.[33]
said, saegde.
bare, baer (verb).
bare, baer (adj.).

[33] Also pronounced e, *q. v.*

fair, faegr.
ware, waer.

N.E. a = O.E. e.

lair, leger.
Thames, Temese.

N.E. a = O.E. éa.

dare, déarr.
mare, méarh.

N.E. a = O.E. āē.

any, āēnig.

N.E. *a* is pronounced *ae* in 47 words (p. 81) with O.E. *a*, and in the following 59 cases:

N.E. a = O.E. ae.

ash, aesc.
aspen, aespen.
fathom, faedm.
gather, gaedrian.
hath (has, have), haefð.
wagon, waegn.
back, baec.
black, blaec.
sack, saec.
slack, slaec.
thatch, þaec.
adze, aedese.
had, haefde.
sad, saed.
shadow, scaed (also sceád).

glad, glaed.
adder, naedre.
bladder, blaedre.
at, aet.
hat, haett.
latter, laetre.
that, þaet.
sat, saet.
saturday, saeterdaeg.
vat, faet.
gnat, gnaett.
apple, aepl.
sap, saep.
nap, hnaeppian.

N.E. a = O.E. e.

thrash, þrescan.

N.E. a = O.E. éa.

arrow, éarwe.
harrow, héarwe.
marrow, méarg.
narrow, néarwe.
sparrow, spéarwa.
sallow, séalwe.
fallow, féalwe.
callow, céalwe.
mallow, méalwe.
gallows, géalga.
tallow, téalg.
salve, séalfjan.[34]
as, éalswā.
am, éam (or ēam).
axe, éax.

[34] See p. 86.

flax, fléax.
wax, wéax.
wax, wéaxan.
axle, éaxl.
shall, scéal.[85]

N.E. a = O.E. éo.
barrow, béorg.

[85] For the original sceál.

N.E. a = O.E. ā̆.
hallow, hālgian.

N.E. a = O.E. ae.
clad, claēded.
ladder, hlaēder.
clammy, claēmig.
spat, spaētte.
fat, faētt.

N.E. a = O.E. ĕa.
chapman, cĕapmann.
chaffer, cĕapfaru.

N.E. a = O.E. ĕ.
bramble, brēmel.

New English *a* is pronounced *a* in 4 words with O.E. *a*, and in 60 other cases. The lists will be found in III. 3, below.

New English *a* is pronounced σ in 11 words (page 82) with *a* in O.E., and in the following 24 cases:

N.E. a = O.E. ae.
small, smael.
water, waeter.

N.E. a = O.E. éa.
all, éall.
fall, féall.
gall, géalla.
hall, héall.
stall, stéall.
wall, wéall.

halm, héalm.
chalk, céalc.
stalk, stéalc.
walk, wéalcan.
alderman, éaldormann.
swarm, swéarm.
warm, wéarm.
warn, wéarnian.
ward, wéard.
swarthy, from swéart.
saw, séah.

N.E. a = O.E. éo.
dwarf, dwéorg.

N.E. a = O.E. ā̆.
aught, āhte.
thaw, þāwan.

N.E. a = O.E. ĕa.
raw, hrēaw.
straw, strēaw.

New English *a* is pronounced ρ in 4 words (p. 82) with O.E. *a*, and the following 10 cases:

N.E. a = O.E. ae.
was, waes.
what, hwaet.
watch, waecce.

N.E. a = O.E. e.
swallow, swelgan.
wasp, wesp.

N.E. a = O.E. éa.
swallow, swéalwe.
wallow, wéalwian.
salt, séalt.
halt, héalt.
malt, méalt.

A very slight examination is enough to show that the O.E. vowel does not determine the pronunciation in these cases, and to suggest that here, as well as in the older period, the following consonants have been the determining element. I will show this only in the case of the sound *a*, with which we are particularly concerned.

3. The N.E. sound *a* represents O.E. vowels in 67 words, as follows:

N.E. a = O.E. a.
ass, asse.
castle, castel.
flask, flasce.
last, latost.

N.E. a = O.E. ae.
after, aefter.
chaff, caef (and ceáf).
craft, craeft.
shaft, scaeft.

bath, baeð.
path, paeð.
father, faeder.
rather, hraeðer.[86]

[86] Also pronounced σ.

grass, graes.
glass, glaes.
brass, braes.
fast, faest.
mast, maest.
harvest, hacrfest.
arch, aerce.
cart, caert.
alms, aelmesse.

N.E. a = O.E. éa.

are, éaron.
arse, éars.
yarn, géarn.
arm, éarm.
harm, héarm.
ark, éarc.
stark, stéarc.
spark, spéarc.
mark, méarc.
park, péarruc.
hard, héard.
yard, géard.
art, éart.
tart, téart.

harp, héarpe.
sharp, scéarp.
half, héalf.
calf, céalf.
psalm, pséalm.
salve, séalfian.[87]
laughter, hléahtor.

N.E. a = O.E. e.

barley, from bere.
marsh, mersc.
barn, bere-aern.

N.E. a = O.E. éo.

tar, téoru.
star, stéorra.
far, féorr.
hart, héort.
heart, héorte.
carve, céorfan.
starve, stéorfan.
hearth, héorđ.[88]

[87] Also pronounced ae, p. 84.
[88] Also pronounced oe.

barm, béorm.
bark, béorcan.
dark, déorc.

N.E. a = O.E. íe.

mar, míerran.
yard, gíerd.

N.E. a = O.E. ã.

lark, lãwerce.
ask, ãscian.
wrath, wrãđ.

N.E. a = O.E. ãe.

ant, ãemette.
last, lãest.
blast, blãest.

N.E. a = O.E. ēo.

darling, dēorling.
farthing, fēorđing.

N.E. a = O.E. íe.

hearken, híercnian.

From this list it appears that this sound is represented by *a* in every case but three, where we have *ea;* the frequent cases of *ai* (pron. *e*), and the *au* in *laughter*, owe the second part of the digraph to the O.E. *g* and are to be reckoned as spellings with simple *a*.

A comparison of these words with the other words of O.E. origin in N.E. shows that the sound *a* is used:

i. For O.E. *a* regularly before *s* + consonant in monosyllables, but not in dissyllables (ashes), nor after *w* (wash).

ii. For O.E. *ae* regularly before a final fricative, fricative + consonant, *r* + consonant, silent *l* + nasal, but not before medial fricatives, except in *father* and *rather*, nor always after *w* (was). Exceptions are: *hath, ash,* and the unaccented *-ness* in compounds like *Shoebury-ness.*

iii. For O.E. *éa* before *r* + consonant and *l* + a labio-nasal or fricative, except *beard, earn, fern, halm.* It is used for *éa* also in *laughter* and *are.*

iv. For O.E. *e, íe, íe* before *r* + consonant exceptionally by analogy of the numerous words with O.E. *éa* before *r* + consonant.

v. For O.E. *éo* in monosyllables before *r* + consonant except *rl,*

rn, rð, which have *o͞ᵉ* (churl, learn, earth) and after *w* (swerve, work, dwarf, sword). The only exception is *birch. Hearth,* which should be pronounced *o͞ᵉ,* is occasionally pronounced *a.*

vi. For o.e. long vowels *ā, ǣ* (and *īe,* see iv.), only when these are treated according to the analogy of the corresponding short vowels. Thus *ask* falls into the analogy of o.e. words with *a + s + consonant; last* and *blast* follow *fast, mast,* and the like ; *lark* follows *ark, spark,* and others with *éa. Wrath* owes its *a* sound to the *r* (cf. *wroth,* where the regular sound appears). *Ant* is an isolated contraction. *Darling* and *farthing* owe their sound to the *r,* but compare *forty* and *thirteen,* which are also dissyllables, with *ēo* in o.e.

It thus appears that this sound is due directly or indirectly to *r* in forty cases, to *l* in five cases, to fricatives in twenty-one cases, and once to a contraction.

But *r* not only produced the sound *a* from vowels ; it assumed this vowel sound itself, in some parts of England and the United States, wherever it was final or medial before a consonant, though *r* and *rr* before vowels always preserved the consonant sound. This new vowel coalesces with the preceding vowels in such words as mar, star, yard, and is suffixed to the preceding vowel in such words as sheer (shia), hare (heᵃa), wire (waia), four (foᵃa), hir (hoᵉa), heard (hoᵉad). Sometimes the vocalized *r* forms a syllable, as, for instance, in shower (shaua), ever (eᵃva). When carelessly spoken this vocalized *r* has the diphthongal sound *o͞ᶠa,* while in many parts of the United States and of England it has preserved its consonantal character.

4. The tendency of the language in the New English time is not merely a continuation and completion of the process we have already seen in the Ormulum. The tone-lowering had modified in m.e. almost all the classes of words in which it appears in n.e. ; but the tone-raising which has affected so large a majority of the o.e. *a*-sounds in n.e. did not begin till much later, for there is no trace of it in Orm. The influence of the consonants is therefore in some cases earlier and more lasting than in others. Those consonants which have exercised the strongest and most prolonged power have usually affected the entire vowel system in a manner analogous to that in which they modify *a.* Thus *r* and *h* attract all vowels, light and dark, toward *a ; r +* consonant and *l +* consonant usually have a lowering and blunting effect on preceding vowels ; fricatives lower the tone of bright vowels and blunt the articulation

of the darker ones; mutes and nasals agree in their tendency to lower light vowels, to raise dark vowels, and to blunt the articulation of the extreme vowels at either end of the scale. The cause of the modification of the vowel sounds in these cases lies in the relation of the position of the vocal organs when sounding the vowel to that which they must assume to utter the consonant. In speaking rapidly, the former, which may vary, will adapt itself to the latter, which is relatively constant. The liquids and the aspirate *h* have a near relation to *a*, which accounts for their influence; less marked, but of the same nature, is the power of the fricatives; while the mutes, being further removed from relationship with the vowels, usually blunt the preceding vowels and assimilate them to the vowel articulation from which the mutes are least removed.

In o.e. the general lines of development are similar, except that epenthesis played a most important part, and that the influence of nasals was more distinctly lowering than now. The vowel of the syllable which follows the accent has also some times the power of assimilating the root-vowel, or at least of bringing it nearer to its own sound, which is allied to the form of epenthesis called umlaut. It is difficult to account for these o.e. elements in phonetic growth unless we take them to be a reflection in language of the restless spirit which sees that which is to come as though it were already present, and, while it utters one vowel, " o'erleaps itself and falls on t'other."

V. — *On the Use of the Aorist Participle in Greek.*

By T. D. SEYMOUR,

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UNTIL the present century's historical and comparative study of the Greek language, and even nearly to the middle of this century, it was held that the aorist was the absolute preterit, the expression of a past which is conceived as a unit. The aorist in all its moods, optative, infinitive, and imperative as well as participle and indicative, was thought to refer properly to past time, as truly as does the perfect tense to a completed state or action. In the indicative the aorist was recognized in its full peculiarity.

Philological study of the elements of the verb has made it plain that the aorist indicative owes its reference to past time to the augment alone; it has been shown that there is nothing in φυγεῖν or φυγών, in λιπεῖν or λιπών, rather than in φεύγειν or φεύγων, λείπειν or λείπων, which should represent an action as past. We should then expect the aorist participle to be distinguished from the present participle only as the aorist infinitive differs from the present infinitive; *i. e.* to represent the action as momentary or indefinite, without reference to its continuance. We find in Homer distinct examples of the survival of this usage: *e. g.* —

A 592   πᾶν δ' ἦμαρ φερόμην, ἅμα δ' ἠελίῳ καταδύντι
κάππεσον ἐν Λήμνῳ.

A 601   ὡς τότε μὲν πρόπαν ἦμαρ ἐς ἠέλιον καταδύντα
δαίνυντ'.

Σ 210   ἅμα δ' ἠελίῳ καταδύντι
πυρσοί τε φλεγέθουσιν ἐπήτριμοι.

Ω 713   καί νύ κε δὴ πρόπαν ἦμαρ ἐς ἠέλιον καταδύντα
Ἕκτορα δάκρυ χέοντες ὀδύροντο πρὸ πυλάων.

ρ 582   ἀλλά σε μεῖναι ἄνωγεν ἐς ἠέλιον καταδύντα.

α 23   Αἰθίοπας τοὶ διχθὰ δεδαίαται, ἔσχατοι ἀνδρῶν,
οἱ μὲν δυσομένου Ὑπερίονος, οἱ δ' ἀνιόντος.

In these verses the aorist participle seems to be used simply to mark the setting of the sun as a momentary action; the darkness of evening appears to come upon us far more suddenly than the light of morning.

This achronic use of the participle is clear also when it is connected with a finite verb in the aorist. Some have thought that in such cases the participle was attracted to the tense of the verb; but this attraction is not easily explained, least of all when the finite verb is not in the indicative; as, Hom. σ 379 τῷ κε ἴδοις πρώτοισιν ἐνὶ προμάχοισι μιγέντα. In such cases it is clear that the action represented by the participle coincides in time with the action represented by the finite verb. A paper[1] read before this Association in 1877 called attention to the temporal coincidence of the aorist par-

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[1] See "Proceedings" for that year, pp. 4, 5.

ticiple with the principal verb in sentences like Hom. θ 564 ἀλλὰ τόδ' ὥς ποτε πατρὸς ἐγὼ εἰπόντος ἄκουσα | Ναυσιθόου κτλ. The author[1] of that paper extends his observation not merely to Hom. ρ 492 τοῦ δ' ὡς οὖν ἤκουσε περίφρων Πηνελόπεια | βλημένου ἐν μεγάρῳ,[2] but also to expressions like Hom. ν 58 καί μιν φωνήσας ἔπεα πτερόεντα προσηύδα, where the principal verb is not in the aorist but in the imperfect. That such cases are frequent is undoubted, but there are many others where the aorist participle refers to an action which precedes that of the principal verb.

It is worth an effort to discover the principle which underlies these diversities. We must remember that the old view of the aorist infinitive also was that it properly referred to past time, while now we distinguish its meanings according to its correspondence to an indicative or an optative in the direct discourse. E.g. Plato, Gorgias 449 C καὶ γὰρ αὖ καὶ τοῦτο ἕν ἐστιν ὧν φημι, μηδένα ἂν ἐν βραχυτέροις ἐμοῦ τὰ αὐτὰ εἰπεῖν ... καὶ οὐδενὸς φήσεις βραχυλογωτέρου ἀκοῦσαι. This is virtually equivalent to οὐδεὶς ἂν εἴποι κτλ. and οὐδενὸς βραχυλογωτέρου ἤκουσας. Thus in the original sentence ἀκοῦσαι naturally refers to past time; the tense is not changed in passing into the oratio obliqua. So e.g. in Isoc. IV 147 ὥσθ' ὁ βασιλεὺς ... συλλαβεῖν ἐτόλμησεν, we might have had συνέλαβε or συλλαβεῖν τολμῆσαι.

Let us study the participles with the aid of this criterion of correspondence to the indicative or other moods respectively.

With regard to the first grand division, the attributive participles, little need be said. It will be admitted readily that as οὗτος (or ἐκεῖνος) ὁ λύσων is a rough equivalent of οὗτος (or ἐκεῖνος) ὃς λύσει, and ὁ λελυκώς to ὃς λέλυκε or ὃς λελύκει, so ὁ λύσας corresponds to ὃς ἔλυσε. A Greek would as soon think of confounding λέλυκε and ἔλυσε (and examples of this confusion are rare before the Alexandrian period), as of put-

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[1] Professor Merriam; see his "Phaeacians of Homer," p. 247.
[2] Which can be understood 'when she was told that,' etc.; cf. Hom. N 521
   οὐδ' ἄρα πώ τι πέπυστο βριήπυος ὄβριμος Ἄρης
   υἷος ἑοῖο πεσόντος ἐνὶ κρατερῇ ὑσμίνῃ.

ting ὁ λελυκώς in place of ὁ λύσας. There is in this aorist participle a reference not merely to past time but to indefinite past time. The aoristic use is clearly developed. But the attributive participle may correspond to the optative or the subjunctive and then the reference to past time is lost. *Cf.* Hom. Γ 138 τῷ· δέ κε νικήσαντι φίλη κεκλήσῃ ἄκοιτις with Γ 71 ὁππότερος δέ κε νικήσῃ κτλ. Ψ 656 τῷ δ᾽ ἄρα νικηθέντι τίθει δέπας ἀμφικύπελλον. So Plato, Gorgias 458 *A* (ἐγώ εἰμι) τῶν ἡδέως μὲν ἂν ἐλεγχθέντων, εἴ τι μὴ ἀληθὲς λέγω, ἡδέως δ᾽ ἂν ἐλεγξάντων, εἴ τίς τι μὴ ἀληθὲς λέγοι, *i. e.* τούτων οἳ ἐλεγχθεῖεν ἄν . . . ἐλέγξειαν ἄν. These cases of correspondence to any other mood than the indicative are comparatively infrequent.

Of the predicate participles, the so-called supplementary participles show most clearly their equivalence to a finite mood. Reference has been made already to passages like Hom. θ 564 ἀλλὰ τόδ᾽ ὥς ποτε πατρὸς ἐγὼν εἰπόντος ἄκουσα | Ναυσιθόου. The direct statement might be : ὁ μὲν πατὴρ εἶπεν ἤκουσα δ᾽ ἐγώ. If in N 521 οὐδ᾽ ἄρα πώ τι πέπυστο . . . υἱος ἑοῖο πεσόντος, πέπυστο had been followed not by a participle but by a declarative clause (its grammatical equivalent), this clause would have taken its verb corresponding to πεσόντος in the aorist, *i. e.* ὅτι ἔπεσε υἱός. Compare P 641 ἐπεὶ οὔ μιν ὀίομαι οὐδὲ πεπύσθαι | λυγρῆς ἀγγελίης, ὅτι οἱ φίλος ὤλεθ᾽ ἑταῖρος. The supplementary participle in general retains the full force of its tense after verbs of seeing, knowing, and the like. Isoc. V 62 αἰσθόμενος δ᾽ Ἀγησίλαον . . . εἰς τὴν Ἀσίαν διαβεβηκότα καὶ πορθοῦντα κτλ., *i. e.* ὅτι διαβεβήκει καὶ ἐπόρθει. Pind. Isth. VII 29 ἴστω αὔξων, *i. e.* ὅτι αὔξει. Soph. Ant. 460 θανουμένη ἐξῄδη, 'I knew that I was to die.' So Aesch. Prom. 956 οὐκ ἐκ τῶνδ᾽ ἐγώ | δισσοὺς τυράννους ἐκπεσόντας ᾐσθόμην ; *i. e.* ἐκ τῶνδε περγάμων δισσοὶ τύραννοι ἐξέπεσον. Hom. O 422 Ἕκτωρ δ᾽ ὡς ἐνόησεν ἀνέψιον ὀφθαλμοῖσιν | ἐν κονίῃσι πεσόντα. Bacchylides fr. 6 ξανθότριχα μὲν Φερένικον . . . εἶδε νικάσαντα. Isoc. VI 83 συνειδότες Ἀθηναίοις ἐκλιποῦσι τὴν πόλιν, *i. e.* ὅτι οἱ Ἀθηναῖοι τὴν πόλιν ἐξέλιπον. Isoc. VII 66 τίς οὐ μνημονεύει τὴν δημοκρατίαν οὕτω κοσμήσασαν τὴν πόλιν ; *i. e.* ὅτι ἡ δημοκρατία οὕτως ἐκόσμησε τὴν

πόλιν. So in φαίνεται σπουδάσας, the participle corresponds to the aorist indicative ; as in φαίνεται σπουδάσων it corresponds to σπουδάσει, and in φαίνεται ἐσπουδακώς to ἐσπούδακε or ἐσπουδάκει. Xen. An. V 8: 14 κατέμαθον ἀναστὰς μόλις.

With λανθάνω and φθάνω, it is evident that the aorist participle corresponds to the same tense of the indicative. Homer P 1 οὐδ' ἔλαθ' Ἀτρέος υἱόν . . . Πάτροκλος Τρώεσσι δαμεὶς ἐν δηϊοτῆτι, *i. e.* (in the impersonal idiom which is more familiar to us) οὐκ ἔλαθ' Ἀτρέος υἱὸν ὅτι Πάτροκλος ἐδάμη. Ω 331 τὼ δ' οὐ λάθον εὐρύοπα Ζῆν | ἐς πεδίον προφανέντε. Π 314 ἔφθη ὀρεξάμενος, *i. e.* πρότερος ὀρέξατο. Compare the converse constructions which show how the participle and finite verb could be interchanged. *E. g.* Pind. Nem. I 37 ὡς οὐ λαθὼν χρυσόθρονον | "Ηραν κροκωτὸν σπάργανον ἐγκατέβα, instead of ἔλαθε "Ηραν ἐγκαταβάς. Hom. τ 449 φθάμενος ἔλασεν σῦς, instead of ἔφθη ἐλάσας. As ἔλαθεν ἀφικόμενος is equivalent to ἀφίκετο λάθρα, so ἔτυχεν ἰδών is equivalent to εἶδε τύχῃ, ʻ he saw by chance.ʼ

But occasionally the aorist participle when supplementary represents not the indicative but some other mood. *E. g.* Plato, Gorgias 468 E οὐδὲ ζηλοῖς ὅταν ἴδῃς τινὰ ἢ ἀποκτείναντα ὃν ἔδοξεν αὐτῷ ἢ ἀφελόμενον χρήματα ἢ δήσαντα. Here the thought might be expressed thus : οὐδὲ ζηλοῖς ὅταν τις ἢ ἀποκτείνῃ ὃν ἔδοξεν αὐτῷ ἢ ἀφέλῃ χρήματα ἢ δήσῃ. Hom. Σ 189 μήτηρ δ' οὔ με φίλη πρίν γ' εἴα θωρήσσεσθαι | πρίν γ' αὐτὴν ἐλθοῦσαν ἐν ὀφθαλμοῖσιν ἴδωμαι, *i. e.* πρίν γ' αὐτὴ ἔλθῃ. Δ 99 αἴ κεν ἴδῃ Μενέλαον πυρῆς ἐπιβάντα, *i. e.* αἴ κε Μενέλαος πυρῆς ἐπιβῇ. Arist. Frogs 637 χὠπότερόν γ' ἂν νῷν ἴδῃς | κλαύσαντα πρότερον ἢ προτιμήσαντά τι κτλ., *i. e.* ὁπότερος ἂν νῷν κλαύσῃ πρότερος ἢ προτιμήσῃ τι. Hom. σ 379 τῷ κε ἴδοις πρώτοισιν ἐνὶ προμάχοισι μιγέντα, *i. e.* τῷ κε μιγείην ἐνὶ προμάχοισιν. α 163 εἰ κεῖνόν γε ἰδοίατο νοστήσαντα, *i. e.* εἰ κεῖνός γε νοστήσειε. Pind. Isth. VIII 40 υἱὸν εἰσιδέτω θανόντ' ἐν πολέμῳ, *i. e.* υἱὸς θανέτω ἐν πολέμῳ. But, as in the case of the attributive participles, the number of instances in which the supplementary participle corresponds to any mood but the indicative are relatively few.

Of the principal divisions of participles but one remains to

be considered — the circumstantial participles, those which express a circumstance of time, means, cause, concession, or condition.

For the participles which express a circumstance of time, it is instructive to compare the parallel constructions in Homer, where we find more of the co-ordinate construction than in later writers. Compare, *e. g.*, Hom. Δ 149 ὡς εἶδεν μέλαν αἷμα ῥίγησεν and Δ 217 ἐπεὶ ἴδεν ἕλκος (φάρμακα ἐπίπασσε) with Δ 279 ῥίγησέν τε ἰδών. Here ὡς εἶδεν and ἐπεὶ ἴδεν seem to be grammatically equivalent to the participle ἰδών of v. 279 which would have been expected in prose. I say they seem to be equivalent *grammatically*, for rhetorically and poetically they may not have produced the same effect, although it is probable that the poet was guided chiefly by the consideration of metrical convenience in the selection of one expression or the other. Homer often uses, and perhaps all Greek authors occasionally use, the finite verb where the participle is expected in Greek prose. So Α 458 αὐτὰρ ἐπεί ῥ᾽ εὔξαντο καὶ οὐλοχύτας προβάλοντο is grammatically equivalent to εὐξάμενοι καὶ προβαλόμενοι. Α 467 αὐτὰρ ἐπεὶ παύσαντο πόνου τετύκοντό τε δαῖτα | δαίνυντο is equivalent to παυσάμενοι πόνου τετυκόμενοί τε δαῖτα ἐδαίνυντο. Ε 702 χάζονθ᾽, ὡς ἐπύθοντο = χάζοντο πυθόμενοι. Ζ 178 αὐτὰρ ἐπειδὴ σῆμα κακὸν παρεδέξατο γαμβροῦ = σῆμα παραδεξάμενος κτλ. ἐμεῦ ἀπομηνίσαντος, Ι 426, is taken up and repeated by ἐπεὶ χόλος ἔμπεσε θυμῷ.

But the aorist participle when circumstantial corresponds to the aorist indicative in other than relative clauses. Compare Α 85 θαρσήσας μάλα εἰπέ with Α 92 θάρσησε καὶ ηὔδα. It is a commonplace of our academies that the Greeks, famed as φιλομέτοχοι, employed a participle and a finite verb where we use two finite verbs. So Α 9 βασιλῆι χολωθεὶς κτλ. is essentially equivalent to βασιλῆι ἐχολώθη καὶ νοῦσον ὦρσε, Α 312 ἀναβάντες ἐπέπλεον to ἀνέβησαν καὶ ἐπέπλεον, Γ 191 Ὀδυσῆα ἰδὼν ἐρέεινε to εἶδε καὶ ἐρέεινε, Ζ 254 τίπτε λιπὼν εἰλήλουθας to τίπτε ἔλιπες καὶ εἰλήλουθας. The proper distinction between the aorist, imperfect, etc., is observed regularly. The virtual equivalence of the expressions with the

participle or finite verb is shown by verses like N 395 οὐδ'
ὅγ' ἐτόλμησεν δηίων ὑπὸ χεῖρας ἀλύξας | ἂψ ἵππους στρέψαι,
where we should expect ὑπὸ χεῖρας ἀλύξαι . . . ἵππους
στρέψας. The number of examples coming under this gen-
eral head might be extended indefinitely. The connection
often marks distinctly the coincidence of time between the
acts expressed by the participle and finite verb. So in N 187
δούπησεν δὲ πεσών, ἀράβησε δὲ τεύχε' ἐπ' αὐτοῦ, the fall
and crash are simultaneous. Like this are N 530 βόμβησε
πεσοῦσα, O 647 τῇ ὅ γ' ἐνὶ βλαφθεὶς πέσεν ὕπτιος, ἀμφὶ δὲ
πήληξ | σμερδαλέον κονάβησε περὶ κροτάφοισι πεσόντος ('as
he fell'), N 409 καρφαλέον δέ οἱ ἀσπὶς ἐπιθρέξαντος ἄυσεν |
ἔγχεος, Π 276 ἀμφὶ δὲ νῆες | σμερδαλέον κονάβησαν ἀυσάντων
ὑπ' Ἀχαιῶν, M 337 οὔ πώς οἱ ἔην βωσάντι γεγωνεῖν, ζ 294
ὅσσον τε γέγωνε βοήσας. In δ 534, where Proteus tells of the
death of Agamemnon, κατέπεφνεν δειπνίσσας is explained by
the close of 535 ὥς τίς τε κατέκτανε βοῦν ἐπὶ φάτνῃ, which
shows that Agamemnon was murdered not after the feast but
at the feast, 'when he dined him.' In N 188 Ἕκτωρ δ'
ὡρμήθη . . . Αἴας δ' ὁρμηθέντος ὀρέξατο δουρὶ φαεινῷ | Ἕκτο-
ρος, the aorist participle distinctly takes up the aorist indica-
tive of the earlier part of the sentence; 'Hector rushed forward,
and as he rushed Ajax thrust at him his shining spear.' Simi-
lar although less distinct is Δ 423 Χερσιδάμαντα δ' ἔπειτα
καθ' ἵππων ἀίξαντα . . . νύξεν, 'as he leaped from his chariot,'
not 'after he had leaped from his chariot.' With this last
example is to be compared Π 342 Μηριόνης δ' Ἀκάμαντα
κιχεὶς ποσὶ καρπαλίμοισι | νύξ' ἵππων ἐπιβησόμενον, where
ἐπιβησόμενον is probably an aorist form (corresponding to the
indicative ἐπεβήσετο) as is made probable by the following
words: ἤριπε δ' ἐξ ὀχέων.

In temporal clauses with the participle in the genitive abso-
lute, there is the same correspondence of tense between the
participle and the finite verb which it represents; e. g. Plu-
tarch, Pericles X Λακεδαιμονίων ἐμβαλόντων εἰς τὴν Τανα-
γρικὴν καὶ τῶν Ἀθηναίων εὐθὺς ὁρμησάντων ἐπ' αὐτούς, ὁ μὲν
Κίμων ἐλθὼν ἐκ τῆς φυγῆς ἔθετο μετὰ τῶν φυλετῶν εἰς λόχον
τὰ ὅπλα, i. e. ὡς οἱ Λακεδαιμόνιοι ἐνέβαλον κτλ.

Sometimes this aorist participle which is generally understood to express a circumstance of time, may correspond to the subjunctive, optative, or infinitive. Thus *B* 231 ὅν κεν ἐγὼ δήσας ἀγάγω, *i. e.* ὅν κεν ἐγὼ δήσω καὶ ἀγάγω. *E* 215 εἰ μὴ ἐγὼ τάδε τόξα φαεινῷ ἐν πυρὶ θείην | χερσὶ διακλάσσας, *i. e.* διακλάσσαιμι. *Z* 270 ἔρχεο ἀολλίσσασα γεραιάς, *i. e.* ἀόλλισσον καὶ ἔρχεο. *Γ* 428 ὡς ὤφελες αὐτόθ᾽ ὀλέσθαι | ἀνδρὶ δαμεὶς κρατερῷ is equivalent to ὡς ὤφελες δαμῆναι κτλ. Lysias XXXI 13 οὐδ᾽ ἀπεχθήσεσθε οὐδενὶ τοῦτον ἀποδοκιμάσαντες, *i. e.* τοῦτον ἀποδοκιμάσαι ὑμῖν οὐδένα ἐχθρὸν ποιήσει.

It may be said that in many of the clauses quoted in the last two pages, the participle does express an action which is prior to that of the principal verb, although the position of the participle is after the principal verb in the sentence ; and that for *Z* 270 ἔρχεο ἀολλίσσασα, if we employ the periphrasis suggested, we are obliged to reverse the order of verb and participle. To this may be replied, first, that in Homer the temporal participle is placed before its verb more frequently than after it, and often when the participle follows the verb it is placed at the beginning of a verse with the freshness of a new thought, as *A* 135 ἀλλ᾽ εἰ μὲν δώσουσι γέρας μεγάθυμοι Ἀχαιοί | ἄρσαντες κατὰ θυμόν. Secondly ; the Greek idiom is notably fond of a kind of *hysteron proteron*, by which the act which is latest, or in any way most prominent, is placed first in the sentence. *E. g.* κ 451 ἀμφὶ δ᾽ ἄρα χλαίνας οὔλας βάλεν ἠδὲ χιτῶνας. *A* 251 οἵ οἱ πρόσθεν ἅμα τράφεν ἠδὲ γένοντο. τ 535 ἀλλ᾽ ἄγε μοι τὸν ὄνειρον ὑπόκριναι καὶ ἄκουσον. ε 264 εἵματά τ᾽ ἀμφιέσασα θυώδεα καὶ λούσασα.[1]

When the participle expresses the cause of an action, the connection distinctly implies that the action of the participle must precede that of the finite verb. When the aorist participle denotes the means of an action it is usually associated with a finite verb in the aorist, and the connection clearly marks a coincidence of time. When the aorist participle expresses a condition it frequently represents the aorist subjunctive or optative ; *e.g.* Κροῖσος Ἅλυν διαβὰς μεγάλην ἀρχὴν καταλύσει, *i. e.* ἐὰν Κροῖσος διαβῇ. Aeschylus, Prometheus

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[1] See Classen, *Homerischer Sprachgebrauch*, 200 fg.

758 ἥδοι' ἄν, οἶμαι, τήνδ' ἰδοῦσα συμφοράν, i. e. εἰ ἴδοις κτλ.
Δ 539 ἔνθα κεν οὐκέτι ἔργον ἀνὴρ ὀνόσαιτο μετελθών.

It is often impossible to pronounce dogmatically as to the
form of the finite verb which the participle represents, but in
general its correspondence to some finite form of the same
tense is unquestioned.

It has been shown that of the attributive, the supplemen-
tary, and the circumstantial participles, a large majority cor-
respond to the aorist indicative and refer distinctly to past
time. From this great preponderance of the participles which
refer to past time, it is easy to see that there would be an in-
creasing tendency to use the aorist participle as if by natural
right it referred to an act which preceded that of the principal
verb, whether the finite verb which the participle represented
would have been in the aorist, imperfect, or pluperfect indica-
tive. In general, however, this participle either retained its
original achronic force or represents the aorist indicative.

VI. — *On the Verbal Abstract Nouns in -σις in Thucydides.*

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ONE of the most striking features of the style of Thucydides
is his tendency towards condensation ; and this is particularly
observable in his use of verbal nouns in -σις. Such nouns
occur, roughly speaking, 400 times. A few of them had
obtained general currency before the time of this historian, —
for example, ὄψις, τάξις, sundry compounds of -βασις, πρό-
φασις, etc. The great majority of them, however, are dis-
tinctly Thucydidean. Stahl's edition contains 471 pages.
Using this as a basis of calculation, these verbals occur, on
the average, once in $1\frac{1}{6}$ pages of text. The average amount
of text in which one occurrence is found, is, for the several
books, as follows: for book i., $1\frac{2}{3}$ pages ; ii., $1\frac{1}{7}$; iii., $\frac{5}{6}$; iv.,
$1\frac{1}{4}$; v., $1\frac{1}{3}$; vi., $1\frac{3}{8}$; vii., $\frac{5}{8}$; viii., 2. Comparing these with

the general average, 1⅙, the diversities are, on the whole, too small to warrant any inferences as to the stylistic development of Thucydides, although the last book may possibly have been less thoroughly worked over into the characteristic diction of the author.

In respect of function and usage these nouns show differences sufficient to be made the basis of their classification. They are found :

1. As substantives, pure and simple ; as subject, or object, or predicate-noun ; and in prepositional phrases.

2. With a genitive objective attached. Here their verbal force is well maintained.

3. Introducing constructions such as would properly follow a verb.

4. In dependence upon a genitive subjective or possessive.

5. In periphrases with ποιεῖσθαι, γίγνεσθαι, ἔχειν, παρέχειν, εἶναι.

1. The purely substantive nouns in -σις. Of these many are employed by Thucydides in a purely concrete sense ; *e. g.* οἴκησις, ii. 17, 1, ὀλίγοις μέν τισιν ὑπῆρχον οἰκήσεις ; ἐνθύμησις, i. 132, 5, κατὰ ἐνθύμησίν τινα ; ἀναχώρησις, 'place of refuge,' i. 90, 2, τὴν Πελοπόννησον ἱκανὴν εἶναι ἀναχώρησιν καὶ ἀφορμήν. ἐπίκλησις occurs as a synonym of ὄνομα i. 3, 2 ; καὶ πάνυ οὐδὲ εἶναι ἡ ἐπίκλησις αὕτη. This employment of the nouns in -σις in a concrete sense is particularly manifest where these nouns are coupled with concrete substantives proper, as the correlatives or equivalents of the latter ; *e. g.* vi. 48, καὶ λιμένα καὶ ἐφόρμησιν τῇ στρατιᾷ ἔσεσθαι ; iv. 126, 1, βραχεῖ ὑπομνήματι καὶ παραινέσει ; viii. 1, 2, περιειστήκει φόβος καὶ κατάπληξις.

Double compound verbs are changed into verbal nouns as well as simple compounds, and illustrate very strikingly the energy of condensation attained by the writer, however harsh the effect may be. Thus ἀντεξόρμησις, ii. 91, 4, ἀξύμφορον δρῶντες πρὸς τὴν ἐξ ὀλίγου ἀντεξόρμησιν ; προεκφόβησις, v. 11, 2, ἀπὸ τοιαύτης ξυντυχίας καὶ προεκφοβήσεως.

Plurals occur rarely, mostly in a distributive sense ; *e. g.* i.

7

2, I, φαίνεται μεταναστάσεις οὖσαι ; iii. 97, 3, καὶ ἦν ἐπὶ πολὺ τοιαύτη ἡ μάχη, διώξεις τε καὶ ὑπαγωγαί; v. 66, 4, καὶ αἱ παραγγέλσεις, ἤν τι βούλωνται, κατὰ τὰ αὐτὰ χωροῦσι κτλ. ; vi. 46, 3, καὶ ἰδίᾳ ξενίσεις ποιούμενοι . . . ἐσέφερον ἐς τὰς ἑστιάσεις ; vii. 12, 5, αἱ ἐπιχειρήσεις ἐπ' ἐκείνοις (εἰσί). In one case the articular infinitive is combined with the plural of the abstract noun, vii. 70, 4, διὰ τὸ μὴ εἶναι τὰς ἀνακρούσεις. The practical use of these nouns for the purpose of brachylogy is very well illustrated in the combination with a complex attributive modifier ; thus ii. 18, 4, μάλιστα δὲ ἡ ἐν Οἰνόῃ ἐπίσχεσις (διέβαλεν αὐτόν); ii. 91, 4, ἀξύμφορον δρῶντες πρὸς τὴν ἐξ ὀλίγου ἀντεξόρμησιν ; iii. 102, 3, διὰ τὴν ἐκ τῆς Λευκάδος ἀναχώρησιν ; cf. iv. 76, I ; vii. 31, I, μετὰ τὴν ἐκ τῆς Λακωνικῆς τείχισιν ; cf. vii. 44, 8 ; vii. 86, 5, διὰ τὴν πᾶσαν ἐς ἀρετὴν νενομισμένην ἐπιτήδευσιν.

In a small number of cases nouns in -σις occur as object, and present the full equivalent of what in more common construction would be a complete sub-clause. Thus after verbs of fearing, iii. 33, I, δεδιὼς τὴν δίωξιν ; iii. 78, I, οἱ Ἀθηναῖοι φοβούμενοι τὴν περικύκλωσιν; or after verbs looking toward the future, as σπένδεσθαι, iii. 24, 3, ἐσπένδοντο ἀναίρεσιν τοῖς νεκροῖς ; or ψηφίζεσθαι, vii. 48, I, ψηφιζομένους τὴν ἀναχώρησιν.

2. The second prominent construction in which these nouns are found is that with a genitive objective attached. As to the proportion of occurrence, this is by far the most frequent employment, comprising some 125 out of a total of 400, or some 31 per cent of the whole. This class best exhibits the general function of the formation, retaining on the one hand almost all the active functions of the verb, and lending itself on the other to all the modifiers which nouns may take. Thus there may be expressed with greater precision the logical relation to the leading clause or governing word, be that relation temporal, causal, or purely one of manner, or final, or the equivalent of an indirect statement.

Thus we have the equivalent of *temporal clauses*, especially through the vinculum of μετά ; as in i. 12, 3, μετὰ Ἰλίου ἅλωσιν ; i. 18, I, μετὰ τὴν τῶν τυράννων κατάλυσιν ἐκ τῆς

Ἑλλάδος ; vi. 4, 3, μετὰ Συρακουσῶν οἴκισιν ; vi. 5, 3, μετὰ Συρακουσῶν κτίσιν. Instrumental relation is almost always expressed by the dative, and not by means of διά with the genitive ; thus, i. 6, 3, χρυσῶν τεττίγων ἐνέρσει ; ii. 37, 3, τῶν τε ἀεὶ ἐν ἀρχῇ ὄντων ἀκροάσει καὶ τῶν νόμων ; ii. 94, 4, λιμένων τε κλήσει καὶ τῇ ἄλλῃ ἐπιμελείᾳ ; iii. 82, 1, τῇ τῶν ἐναντίων κακώσει καὶ σφίσιν αὐτοῖς ἐκ τοῦ αὐτοῦ προσποιήσει ; iii. 82, 3, ἐπιπύστει τῶν προγεγενημένων ; *ibidem*, τῶν ἐπιχειρήσεων περιτεχνήσει ; iii. 82, 8, ἀριστοκρατίας σώφρονος προτιμήσει ; vii. 48, 3, οὐκ ἄλλων ἐπιτιμήσει ; viii. 57, 1–2 ; μὴ τῆς τροφῆς ζητήσει πορθήσωσι τὴν γῆν.

Purpose and final relation are generally expressed by the vinculum of ἐπί with the dative ; iii. 10, 3, ξύμμαχοι μέντοι ἐγενόμεθα οὐκ ἐπὶ καταδουλώσει τῶν Ἑλλήνων Ἀθηναίοις, ἀλλ' ἐπ' ἐλευθερώσει ἀπὸ τοῦ Μήδου τοῖς Ἕλλησι ; similarly in v. 27, 2, ἐπὶ καταδουλώσει τῆς Πελοποννήσου ; vi. 82, 1, ἐπὶ τῆς πρότερον οὔσης ξυμμαχίας ἀνανεώσει ; vii. 66, 2, ἐπὶ τῆς Σικελίας καταδουλώσει. εἰς (ἐς) and πρός are used to designate result and specification.

Here, too, harshness and obscurity result from excessive accumulation ; thus several of these nouns are construed together, composite attributives are inserted, a few double compounds are met with, and in a few cases several of these features are combined. The difficulty of Thucydides, of which some critics make too much and some too little, may be explained in good part from the employment of such constructions. For instance, in i. 25, 4, we have a double compound in -σις governing a genitive objective, and itself depending upon a genitive subjective, κατὰ τὴν τῶν Φαιάκων προενοίκησιν τῆς Κερκύρας ; so i. 137, 4, γράψας τὴν ἐκ Σαλαμῖνος προάγγελσιν τῆς ἀναχωρήσεως καὶ τὴν τῶν γεφυρῶν ἣν ψευδῶς προσεποιήσατο τότε δι' αὐτὸν οὐ διάλυσιν. The harshness of Thucydides in such constructions has often been adverted to by critics from Dionysius onward. A similar case of accumulated modifiers is found in v. 35, 2, κατὰ τὴν τῶν χωρίων ἀλλήλοις οὐκ ἀπόδοσιν ; iv. 81, 2, τοῦ πολέμου ἀπὸ τῆς Πελοποννήσου λώφησιν ; v. 50, 4, κατὰ τὴν οὐκ ἐξουσίαν τῆς ἀγωνίσεως ; iv. 126, 5, ἥ τε διὰ κενῆς ἐπανάσεισις τῶν ὅπλων ἔχει τινὰ δήλωσιν ἀπειλῆς. The

accumulation reaches a climax in v. 65, 2, δηλῶν τῆς ἐξ
Ἄργους ἐπαιτίου ἀναχωρήσεως τὴν παροῦσαν ἄκαιρον προθυ-
μίαν ἀνάληψιν βουλόμενον εἶναι ; and again in v. 105, 1, οὐδὲν
γὰρ ἔξω τῆς ἀνθρωπείας τῶν μὲν ἐς τὸ θεῖον νομίσεως, τῶν δὲ ἐς
σφᾶς αὐτοὺς βουλήσεως δικαιοῦμεν ἢ πράσσομεν. In vii. 34, 6
we have a rather harsh combination of genitive subjective
and objective, viz., διὰ τὴν τοῦ ἀνέμου ἄπωσιν αὐτῶν ἐς τὸ
πέλαγος. This excessive striving after condensation leads
Thucydides to attach a genitive objective directly to a
noun in -σις the etymology of which does not really permit
such directness, as in the phrase ἐν ἀποβάσει τῆς γῆς, i. 108,
5. Here ἀπόβασις is not, what it often is, a concrete thing,
'landing-place,' but (as the context proves — against Liddell
and Scott) the abstract active noun in a modal sense, equiva-
lent to ἀποβαίνοντες ἐς τὴν γῆν.

3. In the third class, a small one, we place those which
have other and most specifically verbal construction attached ;
nouns which in such connection are treated as if they had all
the power and functions of verbs proper. Thus an indirect
question is attached to δήλωσις, i. 73, 3, μαρτυρίου καὶ δηλώ-
σεως (ἕνεκα) πρὸς οἵαν πόλιν — ὁ ἀγὼν καταστήσεται. In an-
other place we have a complete object-clause construed with
ἐνθύμησις, i. 132, 5, κατὰ ἐνθύμησίν τινα ὅτι οὐδείς πω τῶν πρὸ
ἑαυτοῦ ἀγγέλων πάλιν ἀφίκετο. At ii. 41, 3, we have ἀγανάκτη-
σις with the full construction of ἀγανακτεῖν, and κατάμεμψις
with that of καταμέμφεσθαι ; μόνη οὔτε τῷ πολέμῳ ἐπελθόντι
ἀγανάκτησιν ἔχει ὑφ' οἵων κακοπαθεῖ οὔτε τῷ ὑπηκόῳ κατά-
μεμψιν ὡς οὐχ ὑπ' ἀξίων ἄρχεται. The *genitivus privandi* after
στερεῖν is maintained after στέρησις, ii. 63, 1, περὶ ἀρχῆς
στερήσεως. Twice do we meet the future infinitive after
δόκησις, which is thus differentiated from the more concrete
δόξα, ii. 84, 1, δόκησιν παρέχοντες αὐτίκα ἐμβαλεῖν ; iv. 55, 2,
τῆς δοκήσεώς τι πράξειν. The dative of interest after κατα-
δουλοῦν is made to go with καταδούλωσις, vi. 76, 3, περὶ . . .
σφίσιν ἀλλὰ μὴ ἐκείνῳ καταδουλώσεως. The object-clause after
ἀνακαλεῖν is left unchanged after ἀνάκλησις, vii. 71, 3, πρὸς
ἀνάκλησιν θεῶν μὴ στερῆσαι σφᾶς τῆς σωτηρίας ἐτρέποντο.

4. We now reach that construction of nouns in -σις where

the latter are dependent upon a genitive subjective or possessive. The proportion of occurrence of this construction is much smaller than of that with the genitive objective. There are found about 42 cases or 10 per cent of the whole, whereas the cases of construction with the genitive objective constitute some 132 or 33 per cent of all cases. In the construction with the genitive subjective or possessive the noun naturally assumes more of a substantive character and becomes further removed from the signification of its verbal original than in the object-construction. Moreover there was probably some tacit feeling on the part of the writer which led him to avoid confusion with that class. In this employment, too, we may notice the freedom with which Thucydides uses double compounds; thus in ii. 27, 2, εὐεργέται ἦσαν ὑπὸ . . . τῶν Εἱλώτων τὴν ἐπανάστασιν; and in iv. 128, 4, ὀργιζόμενοι τῇ προαναχωρήσει τῶν Μακεδόνων. In one case, quoted above, we find the harsh combination of genitive subjective and objective, vii. 34, 6, διὰ τὴν τοῦ ἀνέμου ἄπωσιν αὐτῶν ἐς τὸ πέλαγος. A number of nouns in this construction assume decidedly concrete sense: thus, ἀπόστασις, 'revolt;' ποίησις, 'poetical works;' μέλλησις, 'delay;' ὅπλισις, 'equipment;' ὑπόσχεσις, 'promise;' ἀνάλωσις, 'expenditure;' ἔκπληξις, 'fright;' ἀνάβασις, 'approach;' in concrete topographical sense, διάβασις, 'ford;' ἀπόβασις, 'landing-place.' A few illustrations will suffice; i. 10, 3, τῇ Ὁμήρου ποιήσει; vi. 31, 5, εἰ γάρ τις ἐλογίσατο τὴν — τῆς πόλεως ἀνάλωσιν; vi. 78, 2, οὐκ ἀνθρωπίνης δυνάμεως βούλησιν ἐλπίζει; iv. 39, 3, καὶ τοῦ Κλέωνος καίπερ μανιώδης οὖσα ἡ ὑπόσχεσις ἀπέβη; i. 69, 4, τὴν αὔξησιν τῶν ἐχθρῶν καταλύοντες; iii. 78, 4, ἐς ἡλίου δύσιν; vii. 42, 3, ἀποχρήσασθαι τῇ παρούσῃ τοῦ στρατεύματος ἐκπλήξει (ἔκπληξις occurs 8 times in Thucydides, whereas the average occurrence of all other nouns in -σις is twice each); vii. 42, 4, εἰ κρατήσειέ τις τῶν . . . Ἐπιπολῶν τῆς ἀναβάσεως; vii. 74, 2, τῶν ῥείθρων καὶ ποταμῶν διαβάσεις ἐφύλασσον.

5. The last construction to be considered is the periphrastic. Hitherto we have seen that these nouns serve as a means of compact statement, that they are a contrivance for

condensation. Is the same thing to be said of the peri-
phrastic construction? Is it not really an expansion? Could
not Thucydides say ἀποβαίνειν or ἀποβῆναι instead of ἀπόβα-
σιν ποιεῖσθαι? We must not forget that the striving after
logical precision is as strong in Thucydides as that after con-
densation, and that nouns admit of more concise modification
than verbs. The force of habit, also, doubtless told on his
phraseology; it became stereotyped in many modes of expres-
sion. I have noticed some seventy instances of these peri-
phrastic locutions. Thirty-two are made with ποιεῖσθαι.
Once only — where the subject acts merely as the instru-
ment — ποιεῖν is used, iv. 20, 2, τοῖς ἄλλοις Ἕλλησιν ἀνάπαυ-
σιν κακῶν ποιήσωμεν. In point of frequency ποιεῖσθαι is
followed by γίγνεσθαι; with this verb seventeen of these
periphrases are made. The other periphrases are with ἔχειν,
παρέχειν, εἶναι, καθιστάναι. The periphrasis with ποιεῖσθαι is
especially used after military movements and political meas-
ures; thus in iii. 2, 1, τὴν ἀπόστασιν ποιήσασθαι; iii. 53, 1,
τὴν παράδοσιν τῆς πόλεως . . . ἐποιησάμεθα; iii. 66, 2, ξύμβα-
σιν ποιησάμενοι; vi. 42, 1, ἐπεξέτασιν τοῦ στρατεύματος καὶ
σύνταξιν . . . ἐποιήσαντο; vii. 17, 3, πέμψιν τῶν νεῶν ποιή-
σασθαι; vii. 41, 1, τὴν κατάφευξιν ἐποιοῦντο ἐς τὸν ἑαυτῶν
ὅρμον; viii. 3, 2, τὴν πρόσταξιν ταῖς πόλεσιν ἐποιοῦντο.

The periphrasis with γίγνεσθαι, though less frequent in
occurrence, seems to be more varied in its composition.
iii. 23, 5, ἐγένετο ἡ διάφευξις αὐτοῖς μᾶλλον διὰ τοῦ χειμῶνος τὸ
μέγεθος; iii. 89, 3, παραπλήσια γίγνεται ἐπίκλυσις; iv. 38, 3,
γενομένων ἐπερωτήσεων δὶς ἢ τρίς; iv. 85, 1, ἡ μὲν ἔκπεμψίς
μου ὑπὸ Λακεδαιμονίων γεγένηται; iv. 95, 1, δι' ὀλίγου ἡ
παραίνεσις γίγνεται; iv. 135, 1, ἡ πρόσθεσις ἐγένετο; vi.
103, 4, κύρωσις οὐδεμία ἐγίγνετο; vii. 4, 6, τῶν πληρωμά-
των κάκωσις ἐγένετο; viii. 66, 2, οὔτε ζήτησις οὔτε δικαίωσις
ἐγίγνετο.

The periphrasis with παρέχειν is mostly ἔκπληξις; thus, iv.
55, 3, ἔκπληξιν μεγίστην παρεῖχε; vi. 46, 4, μεγάλην τὴν
ἔκπληξιν τοῖς Ἀθηναίοις παρεῖχε; vii. 70, 6, ἔκπληξίν τε ἅμα καὶ
ἀποστέρησιν τῆς ἀκοῆς . . . παρέχειν. The same term occurs
with καθιστάναι, and with παραστῆναι; vi. 36, 2, τὴν πόλιν

ἐς ἔκπληξιν καθιστάναι ; viii. 96, 1, τοῖς δ' Ἀθηναίοις . . .
ἔκπληξις μεγίστη παρέστη.

The periphrasis with ἔχειν occurs in a passive sense in iv.
126, 1, εἰ μὴ ὑπώπτευον ὑμᾶς ἔκπληξιν ἔχειν ; but actively a
little below, iv. 126, 5, τὴν μέλλησιν ἔχουσι τοῖς ἀπείροις
φοβεράν ; *ibidem,* ἔχει δήλωσιν ἀπειλῆς ; vi. 41, 4, τὴν ἐξέτα-
σιν αὐτῶν ἡμεῖς ἕξομεν. The harshest and most abnormal
employment of ἔχειν is found in ii. 61, 2, τὸ μὲν λυποῦν ἔχει
ἤδη τὴν αἴσθησιν ἑκάστῳ. The tendency towards periphrasis
may be observed elsewhere in Thucydides, particularly with
nomina agentis in -της ; e. g. i. 35, 4, τῶνδε κωλυταὶ . . . γενή-
σεσθε ; i. 132, 5, μηνυτὴς γίγνεται. Cf. iii. 2, 3 ; iii. 23, 2 ; iii.
59, 2, ἱκέται γιγνόμεθα.

With reference to the use of these verbals, it may be of
interest to compare Thucydides with some of the most im-
portant writers of Greek prose who stood nearest to him.
These are Herodotus, Antiphon, and the author of περὶ
Ἀθηναίων πολιτείας as his predecessors, and Xenophon, as
his successor.

The eighth book of Herodotus is equivalent to about one
sixth of Thucydides. The occurrences of the -σις nouns
number 40, and are to those in an equal amount of Thu-
cydides as 3 to 5. But 15 are nouns long in vogue, with
established concrete meaning, such as στάσις, ὄψις, ἅλωσις,
σύνεσις, διάβασις, φύσις, πρόφασις, σκήψις, τάξις, κατάβασις,
ἀνάβασις, and the like. The following are not found in Thu-
cydides : ἐξήλυσις, ἐπάγερσις, ἔλασις, ἐπαύρεσις, ὑπόφαυσις,
ἔκλειψις, ἄπιξις. Eight are cases with a genitive objective
attached. The most striking feature of Thucydidean usage
which is wanting in this portion of Herodotus, is the accumu-
lation and insertion of attributives and other modifiers.

As for Antiphon, the bulk of that author is equivalent to
one eighth of Thucydides, and a little more. We find some
thirty-eight cases, or about three quarters of the Thucydidean
average. The percentage of independent and original forma-
tions is much larger than in Herodotus ; thus we find πόσις,
'potatio,' φόνευσις, ἀπόφευξις, ἀποψήφισις, τίμησις, αἰτίασις,

ἀναίρεσις, ἴασις, διάγνωσις, and in iv. 22, a double compound, μετέκβασις. A case of accumulated construction reminding us greatly of Thucydides is found in iv. 95, τοῦ δὲ τούτοις πειθομένους ἐξεργάσασθαι ἃ οὗτοι βούλονται οὐκ ἐστιν ἴασις.

The pamphlet περὶ Ἀθηναίων πολιτείας is equivalent to nine pages of Stahl's Thucydides, which of course is too little to base any computation upon. Only four cases occur: κτῆσις, θέσις, τάξις, and πρόφασις. κτῆσις is used in concrete sense, i. 19, διὰ τὴν κτῆσιν, τὴν ἐν τοῖς ὑπερορίοις. θέσις and τάξις are construed with genitive objective : iii. 3, περὶ νόμων θέσεως ; iii. 5, αἱ τάξεις τοῦ φόρου.

Of Xenophon I selected for comparison his continuation of Thucydides, viz. the first three books of the Hellenica, these being equal in bulk to one fifth of Thucydides. The result is quite significant. There are only some twenty-five occurrences, or considerably less than one third as many as Thucydides would have in that space. The variety is limited, and concrete nouns like πρόφασις, στάσις, πρᾶξις, κρίσις, φύσις make up most of the count. But a very small number of freer formations deserve mention, such as φοίτησις, i. 6, 7, ταῖς ἐπὶ τὰς θύρας φοιτήσεσιν. At iii. 5, 5, is a noteworthy case of accumulation: πάλαι ὀργιζόμενοι αὐτοῖς τῆς τε ἀντιλήψεως τῆς τοῦ Ἀπόλλωνος δεκάτης ἐν Δεκελείᾳ καὶ τοῦ ἐπὶ τὸν Πειραιᾶ μὴ ἐθελῆσαι ἀκολουθῆσαι.

APPENDIX.

MEMBERS IN ATTENDANCE AT THE THIRTEENTH ANNUAL SESSION.

Frederic D. Allen, Harvard University, Cambridge, Mass.
C. T. Beatty, High School, East Saginaw, Mich.
James S. Blackwell, University of Missouri, Columbia, Mo.
Fisk P. Brewer, Iowa College, Grinnell, Iowa.
Charles J. Buckingham, Poughkeepsie, N. Y.
Henry F. Burton, University of Rochester, N. Y.
Martin L. D'Ooge, Michigan University, Ann Arbor, Mich.
Henry Garst, Otterbein University, Westerville, Ohio.
Basil L. Gildersleeve, Johns Hopkins University, Baltimore, Md.
H. McL. Harding, Brooks Academy, Cleveland, Ohio.
Newton B. Hobart, Cleveland, Ohio.
John L. Johnson, University of Mississippi, Oxford, Miss.
Elisha Jones, Michigan University, Ann Arbor, Mich.
W. S. Kerruish, Cleveland, Ohio.
Charles R. Lanman, Harvard University, Cambridge, Mass.
Miss Harriet E. McKinstry, Lake Erie Female Sem., Painesville, Ohio.
Irving J. Manatt, Marietta, Ohio.
Francis A. March, Lafayette College, Easton, Pa.
J. O. Notestein, University of Wooster, Ohio.
Lewis R. Packard, Yale College, New Haven, Conn.
William R. Perkins, Cornell University, Ithaca, N. Y.
Samuel Porter, National Deaf-Mute College, Washington, D. C.
L. S. Potwin, Western Reserve College, Hudson, Ohio.
Thomas R. Price, University of Virginia, Va.
Charles W. Reid, Allegheny College, Meadville, Pa.
Lawrence Rust, Kenyon College, Gambier, Ohio.
Thomas D. Seymour, Yale College, New Haven, Conn.
Ernest G. Sihler, Classical School, New York, N. Y.
Edward Snyder, Illinois Industrial University, Champaign, Ill.
Charles W. Super, Ohio University, Athens, Ohio.
Zachary P. Taylor, Central High School, Cleveland, Ohio.
Calvin Thomas, Michigan University, Ann Arbor, Mich.
Crawford H. Toy, Harvard University, Cambridge, Mass.
Benjamin W. Wells, Johns Hopkins University, Baltimore, Md.
J. B. Weston, Antioch College, Yellow Springs, Ohio.
John Williams White, Harvard University, Cambridge, Mass.
William D. Whitney, Yale College, New Haven, Conn.

AMERICAN PHILOLOGICAL ASSOCIATION.

CLEVELAND, OHIO, Tuesday, July 12, 1881.

THE Thirteenth Annual Session was called to order at 3.30 P.M. in the Assembly Room of the Board of Education (Public Library Building, Euclid Avenue), by the President, Professor Lewis R. Packard of Yale College, New Haven, Conn.

The Secretary, Professor Charles R. Lanman of Harvard University, Cambridge, Mass., presented the following report of the Executive Committee :

a. The Committee had elected as members of the Association :

Benjamin W. Wells, Ph.D., Fellow of the Johns Hopkins University, Baltimore, Md.

George Bendelari, Instructor in Modern Languages, Harvard University, Cambridge, Mass.

Edward S. Sheldon, Tutor in German, Harvard University, Cambridge, Mass.

b. The Proceedings had been duly published. The Transactions were all in type and nearly ready for distribution.

c. The Committee had directed the Secretary to distribute thirty complete sets of the Transactions among the principal learned societies of Europe and Asia, and to send copies of the eleventh and twelfth volumes of the Transactions to the principal libraries of the United States, *gratis*, with a circular, offering to complete the set for twelve dollars (half the regular price).

The Secretary presented an invitation from the Cleveland Union Club, tendering to the members of the Association the freedom of the Club during their stay in the city.

The Treasurer, Mr. Charles J. Buckingham of Poughkeepsie, N. Y., presented his report, showing the receipts and expenditures of the year (see p. 32).

On motion, the Chair appointed Professor F. A. March and Professor T. D. Seymour a committee to audit the Treasurer's report.

As committee on the hours of meeting, the Chair appointed Professor C. H. Toy and Professor Lawrence Rust.

Professor John Williams White, of Harvard University, presented the following resolutions :

Whereas, Many colleges in the United States have in recent years conferred the degree of Doctor of Philosophy not by examination but *honoris causa,* be it

Resolved, first, That this Association deprecates the removal of this degree from the class to which it belongs (namely, B.D., LL.B., M.D., and Ph.D., — degrees conferred after examination), and its transfer to the class of honorary degrees.

Secondly, That a committee of three be appointed to present this resolution to the American Association for the Advancement of Science, and to request them to co-operate with this Association in addressing a memorial to the Boards of Trustees of all colleges in the United States empowered to confer degrees, stating the objections to conferring the degree of Doctor of Philosophy *honoris causa,* and praying them to discontinue the practice if it exists in the colleges under their control.

Professor William D. Whitney, of Yale College, moved that the resolutions be referred to the Executive Committee. The motion was carried.

Communications were then presented as follows :

1. On Homer and Strabo, by Dr. E. G. Sihler, of New York City.

The period of Greek literature beginning with the death of Alexander is interesting because of its analogies with our own time. Then as now there was the general tendency to erudition and encyclopedic accumulation, and the opportunity for scholars to apply historical, critical, and grammatical study to the great authors of the classic period. In the Augustan age this movement received a fresh impulse from the favorable political and social conditions attendant on general peace and easy communication. This was when Strabo flourished. His travels extended from Armenia to Etruria, and in the South to the boundaries of Abyssinia (Strabo, page 117, Casaubon). To his knowledge of mathematical and physical geography and political history he joined an accurate and comprehensive acquaintance with literature, and so has been able to fill his work with literary and biographical notes to accompany his account of the birthplaces of men of letters.

Of all authors, the one most persistently quoted by Strabo is Homer. Meineke's index shows seven hundred and twenty distinct references to Homer, while the much more reliable material of Herodotus is used but thirty times. Thus Homer is quoted as authority on Spain, on the peoples of the Danube (p. 295), on the historical geography of Elis (p. 337), etc.

"The Homeric Epos, and especially the Odyssey," says Kiepert (*Lehrbuch der alten Geographie,* p. 3), "shows the first traces of the transition to the Greeks of the half-fabulous stories of Phenician mariners about the lands they had visited." How now does it happen that Strabo, with his abundant equipment of learning, refers so constantly to his revered but untrustworthy Homer ?

This question Mr. Sihler attempted to answer by showing that among the numerous geographers who preceded Strabo, copious discussions of the Homeric geography had been usual. Strabo did not start them. Indeed, he himself tells us (p. 348, cf. p. 337) that he would not have given so much care to the examination of traditions if he had not received them and grown up with them from child-hood, and seen that they met with great acceptance among many of his prede-cessors and contemporaries. Strabo's personal knowledge often enabled him to state the present condition of things; but the reputation of Homer would not allow Strabo's statements to pass without some critical comparison, or reconcile-ment in case of difference.

Eratosthenes (275–194 B.C.), the most important of Strabo's predecessors, denied to Homer all authority as a reliable source of information for history or geography. Strabo often finds occasion to enter into polemic with him; and, in view of the learning and high standing of Eratosthenes, it was an essential point with Strabo to vindicate the disputed authority of the great poet. Successors of Eratosthenes had concerned themselves much with Homeric geography. Apollo-dorus wrote a voluminous commentary on the "Catalogue of Ships" (Iliad ii.); Demetrius of Skepsis treated fully the topography of the Troad; Polybius, the historian, cited Homer, and argued the question whether the places of Odysseus's wanderings might be identified; Posidonius devoted much space to the treatment of Homeric problems; and Aristonicus, a contemporary of Strabo, wrote a work περὶ τῆς Μενελάου πλάνης, which Strabo himself made use of. Thus Homeric discussion had gone on from Eratosthenes's time to Strabo's, and Homer's fame had in no wise abated. No wonder, then, that Strabo should give so much space to Homeric subjects. Herein he reflects the studies of his forerunners.

This gives us an idea of the literary activity of the Alexandrian period. Polemic was no less common than with us; but it was carried on differently. It was the criticism of predecessors by those that came after them, instead of the rapid exchange of views between contemporaries.

2. The Testimony of the Talmud respecting the ancient Pronunciation of certain Latin Letters, by Professor James S. Blackwell, of the University of Missouri, Columbia, Mo.

It is known from the Talmud that the Jews of the first centuries of our era gave great attention to orthoepy, — as appears, for example, in the ridicule of the Galilean provincialisms; and that constant contact with the Romans afforded them good opportunities of learning the best Latin pronunciation, which, there-fore, we may suppose to be fairly represented by the transliterations of the Talmud. We consider here only two letters, the Roman *c* and *s*. The first of these is regularly transliterated in the Talmud by ‎ק‎, rarely (and probably from carelessness of copyists) by ‎כ‎ (which rather represents Greek χ), and the second by ‎ס‎ and not by ‎ש‎. Now ‎ק‎ is not our *k*, but a more guttural sound, and ‎ס‎ is harder than our *s*; nor can we expect absolute accuracy in these representations. Yet the transliteration of the *c* by the ‎ק‎ seems to place the sound of the former as far as possible from a sibilant. So far as the testimony of the Talmud goes, it favors the hard sound for Latin *c*. Nevertheless it must be added, in respect to the general question of our present Latin pronunciation, that the impossibility

of recovering the precise sounds and restoring tone and accent, and the consideration of economy of time, make it wiser to use the English sounds of the Latin letters.

Professor Whitney criticised the conclusion of this paper. He advocated as near an approach to the ancient pronunciation as is possible.

3. The Home of the Primitive Semitic Race, by Professor Toy, of Harvard University.

Indications of the original dwelling-place of the Semites have been sought from four sources, national traditions, the grammar of the parent-language, its vocabulary, and early Asiatic history; but none of these furnish satisfactory data. 1. It is only among the Hebrews (and Assyrian-Babylonians) that traditions of national and racial origin are found, and the geographical statements in these are fluctuating and indecisive. The position of Eden and Ararat, if known, would not fix the Semitic home. The table of nations in Genesis x. gives the geographical distribution of the peoples speaking Semitic tongues, but not their original centre. The story of the dispersion locates the whole world at one time in Shinar or Babylonia, but does not state in what directions the various nations went from that point. It is impossible to gather anything definite from these data. 2. It has been assumed that the people whose grammar most nearly represents that of the parent-speech dwelt in the primitive home of the race, which has therefore been located in central Arabia. This assumption, however, is untenable. Retention of primitive linguistic forms is due not to the place of abode, but to freedom from influences that produce grammatical change, and such argument can lead to no results. 3. It is supposed that the physical features, climate, minerals, plants, animals, etc., of the cradle of the race may be determined from the vocabulary of the parent-tongue. In seeking for the primitive vocabulary, it is especially necessary to guard against reasoning from the absence of words, since many original words may have fallen out of the various dialects. Supposing the common vocabulary determined, this may fix a place where the race once dwelt, though great caution is necessary in drawing inferences; it does not follow, for example, that all minerals whose names occur in the primitive tongue are products of the soil, — they may be imports; nor can we in all cases conclude that the present condition of localities is the same as that of very ancient times. Different investigations of the vocabulary have assigned the primitive Semites to Babylonia and to the southeastern coast of Arabia, without arriving at data sufficient to decide between these two localities; and it is possible that other data may point to other localities. Further, if it is shown that a race once occupied a certain district, it is still possible that it may have come thither from some earlier home. 4. Controlling or guiding data are sought in supposed indications of the early Babylonian or Akkadian records. If the Semites dwelt all together in Babylonia, and were there the pupils of their predecessors the Akkadians, they ought all to show traces of Akkadian influence. But this is true of only a part of them, the northern branch, and the Sabeans. It would thence appear that they had separated before entering Babylonia. This early history is, however, still very obscure.

Remarks upon the paper were made by Professors Whitney and Toy.

The committee on the hours of meeting reported. It was arranged that the Association should hold sessions as follows: on Tuesday, at 8 P. M.; on Wednesday and Thursday, from 9 o'clock to 1, and from 4 o'clock to 6.

A recess was then taken until evening.

CLEVELAND, OHIO, Tuesday, July 12, 1881.

EVENING SESSION.

The Association met at 8 P. M.

The Annual Address was delivered by the President, Professor Lewis R. Packard, of Yale College.

4. The Morality and Religion of the Greeks.

After a few introductory remarks, in which among other things reference was made to the loss the Association has sustained in the death of Professor S. S. Haldeman, the discussion of the Morality and Religion of the Greeks was taken up in the form of answers to the following questions:

I. *What was the origin of the moral ideas of the Greeks?* Not the Olympian theology in the earliest form of it known to us, nor any religious ceremonies, nor the speculations of philosophers; nor yet, as Coulanges supposes, the worship of the dead and of fire. This is not primary enough, nor adequate in its range, to account for the result. If we go back to the Aryan ancestry of the Greeks, so far as we can infer their system of morals from the evidence of the Vedic hymns, we find it intimately connected with the religious system of the same hymns, and can hardly explain the origin of either unless by a method which applies as well to those of any people. We must, then, either lose our subject in the general one of the origin of the moral ideas of the race, or confess that we cannot find any other source for those of the Greeks than the earliest religious system of the Indo-European family.

II. *What was the history of Greek morality in the time known to us?* Did it make progress up or down in that time? The materials for this investigation, arranged in the order of their value, are (1) inscriptions and contemporary monumental records of all kinds; (2) institutions and customs made known to us in literature; (3) recorded incidents of private or public life in which a moral character can be clearly perceived; and (4) deliberate expressions of moral and religious feeling by poets and philosophers. Of this last source of information too much is usually made. It is of the smallest value in determining the moral ideas of the common people, because these writers are picked .men, often out of harmony with the moral tone of the community, and because in their writings they are seen at their own highest moral pitch. If we look at a part of the time known to us, between the Homeric and the Periklean period, we may justly say that there is evidence of an improvement in morals. Three par-

ticulars are mentioned by Grote in which this is seen, — the position of orphans, the way of dealing with homicide, and the treatment of enemies slain in war. The same progress may also be seen in outward respect for family ties, in the rights of property, in business transactions, and in courage as shown in war. All these are matters which show an increased sense of society as having claims on the individual and doing work for him. On the other hand, in some respects there is a decline in moral tone. On the position of women and of slaves, the progress of civilization seems to have pressed to their disadvantage. The ideal of individual character seems to be higher in the Homeric poems than later; but this may be due largely to the freedom of the poet in shaping his ideal; and if we combine the Hesiodic poems with the Homeric in forming our conception of the heroic age, the difference between it and the historic age becomes less. Some of the proximate causes of this improvement in morals may be easily seen; but it is not so easy to say what was the ultimate cause which made the movement to be for a time upward and not downward. It seems there was something in the stock and surroundings of the Greeks which enabled them to build up a system of usages and principles which supported and shaped, without hampering, the character of the individual.

III. *How good was their morality at its best?* Two cautions are to be observed here. (1) We must not think of the Greeks as precisely like ourselves, and to be judged by the same standard. (2) We must not think of them as wholly different from ourselves. In many respects their civilization was strikingly like ours. In theory their moral system was much the same. Truth, courage, patriotism, and all such virtues are praised and the opposite vices condemned through all their literature. In other respects, such as bodily purity, the permission of revenge, the inculcation of charity and the passive virtues, there was a difference. As to the degree to which their theories were realized in practice as compared with the same thing in modern times, we need more thorough study of the facts before we can venture an opinion.

IV. *What was the influence of the Greek religion upon morality?* Here there is great difference of opinion. In some things we see direct influence of religion to enforce duties of universal morality, — for instance, in the sanctity of oaths, the condemnation of suicide, the dread of the sin of ὕβρις, the duties of hospitality, and pity for suppliants; but it appears that the two ideas "We must do what is right" and "Let us worship and obey the gods" were not by the mass of men consciously and fully recognized as connected, any more than they are always in modern times. There was something, too, in their religion which made the separation of these ideas easy and natural.

V. *What was the character of the religion of the Greeks?* Many unwarranted assertions are made on this subject. It is difficult to estimate fairly the character of any religion, but especially so in this case; for the Greek religion had no accepted standards, was always admitting new elements, had grown out of an unrecorded past, and embraced great varieties of belief and feeling. It needs to be studied historically, for it was continually changing. We must go back as far as we can, and this brings us again to the Vedic hymns. We find there a worship of the powers of earth and air, with constant personification but imperfect anthropomorphism, and a high but wavering idea of the divine character. It is probable that the early Greeks inherited some form of this system, though exactly what form we cannot ascertain. The Sanskrit names *Varuna* and *Dyaus*

are plainly the same with the Greek Οὐρανός and Ζεύς. To this system the Greeks made additions, — some derived from foreign lands, as Dionysos ; some of native origin, as Peitho, Metis, etc. A frequent cause of the multiplication of deities was the separation of the people into small communities, and their subsequent combination into larger aggregates. Then also, in the exercise of both logic and imagination, the Greeks went further than most peoples in the process of anthropomorphism, to which their skill in the plastic and pictorial arts gave powerful assistance. As the social status of the people improved, their ideas of the gods were correspondingly elevated. To this the oracle at Delphi and the tragic poets of Athens contributed their influence. Especially the Apolline doctrine of atonement is the highest point of practical religion attained by the Greeks. After the time of Plato came a decline, but not so sudden and complete a decline as we are apt to suppose. This bare outline, if correct, shows clearly that many current statements about the Greek religion are untenable. It shows that it was not a worship of beauty, nor a worship of nature, nor a simple acting out of human nature unhampered by sense of sin or dread of the future, nor a system of profound truths disguised as fables. From some cause, — we cannot tell certainly what, but perhaps the need of man for some object of worship above him, — the ancestors of the Greeks were led to a system of worship of the powers of nature. This system the tribes that came to Greece brought with them, and in course of time it became localized and humanized and systematized. It was also enlarged on Greek soil by the admission of new deities, both native and foreign, and a theory was formed of a close association of the gods with men. But all along during the time known to us, the conception of these gods was apparently enough above the moral standard of the average man to exert a control over him and lift him up to a higher level. So it was manifestly in such cases as those of Aeschylos and Plato, who themselves did much to raise the ideas of other men. Thus we see how the religion of the Greeks was elevated by the improvement of the moral character of the people, and how at the same time it helped to elevate the character of the people. The apparent consecration of vice in the worship of Dionysos and Aphrodite needs explanation here. Both these worships were apparently introduced from foreign lands; and in the case of both there is evidence of a time when sobriety and chastity were required of the worshippers. The gross indulgences which became associated with them were not the legitimate product of a distorted idea of religion, but the abuse of a natural and right idea. On the whole, the religion of the Greeks, though when compared with some others it appears wavering in its conception of the divine nature and feeble in direct moral influence, was yet worthy of the name of a religion; that is, it was a system of belief as to the relation of man to the divine being, which influenced him, in his conduct, towards reverence, integrity, temperance, and good-will to his fellow-men.

The Association adjourned to 9 o'clock, Wednesday morning.

CLEVELAND, OHIO, Wednesday, July .13, 1881.

MORNING SESSION.

The Association came to order at 9.30 A. M. The Secretary read the minutes of Tuesday's sessions, and they were approved. The reading of communications was then resumed.

5. The History of the *a*-vowel from Old Germanic to Modern English, by Dr. Benjamin W. Wells, of the Johns Hopkins University, Baltimore.

The paper showed both the origin of the *a*-vowel, and its development at four stages of its history, — the Old Germanic, the Old English, the Middle English, and the New English periods.

The Old Germanic *a* was the product of two sounds, represented in Greek by *a* and *o*, and developed in Old English by successive, though often overlapping, changes.

First, the sound was modified from bright to dark *a*, a change found in Old English only before single consonants followed by the dark vowels *a, o, u*, and before nasals. Examples are : snaca, atol, dagum, mann, nam. After nasals, and occasionally elsewhere, we may find *o* for *a* : thus monn, nom, rodor, nosu; other vacillations or irregularities are quite uncommon.

This was followed by the lengthening of final *a*, so *hwā*.

Next, in all cases except those already mentioned, *a* was raised in tone to *æ*. This change was not permanent before *h*, nor before *h, l,* or *r,* + consonant. Examples are fæd, dæg, fæder, æsc. Irregularities in the use of *æ* are rare.

Breaking involves tone-raising, and was perhaps contemporary with it. This changed *a* to *ea* before *h*, and before *h, l,* and *r,* + consonant, and sometimes before a single consonant followed by *o* or *u*. Its cause is the epenthesis of an *u*-sound, either present in the following syllable or produced by svarabhakti from *r, l,* or *h*. The series of sounds was either *a, a^u, ae^o, ea,* or *a, ae, ae^u, ae^o, ea.* Examples are : béadu, genéah, méaht, wéard, éald. Occasionally we find *éo,* for instance réord, and sometimes an *i* before *ht,* so mihte. Before *w* the breaking appears as *éaw,* for old Germanic *aw* became *auw,* which is *éaw* in Old English. Instances are : brēaw, cēaw, hēawan, fēawe. Occasionally we find *éo;* so ēowe. Contraction of *an* before a fricative or *h* to *ō,* was universal. So gōs, ōđer, brōhte. When *ah* (*ag*) was followed by a vowel it became *ēa;* so slēan, Gothic slahan. The same is true of *a* before nasals and liquids; so bēam, Gothic bagms.

Umlaut or *i*-epenthesis changes *a, o,* or *æ* to *e;* so menn, net, gest. It changes *éa* to *íe;* so féldra : and *ēa* to *íe;* so hīege. It changes *ō* to *ē;* so ēst, tēđ.

A palatal pronunciation of *g, c, sc,* or *sl* caused a semi-vocalic sound, like that sometimes heard in sky (skyai), to enter between them and following vowels. This was indicated in Old English by the sign *ea* for *a* and *æ;* *éo* for *o;* *íe* for *e;* *eā* for *ā.* It is seldom used regularly. Examples are : sceámu and sceómu, sceácan, geóng, sciéppan, geā.

This was the last modification of Old Germanic *a* in Old English. Old English *a* always corresponds to Old Germanic *a*.

In the Ormulum, the earliest of the larger Middle English documents, all Old English *a*'s are retained, and many new ones caused by tone-sinking from Old English *ea, æ,* and other sounds.

In New English the Old English *a* is almost always spelled *a,* but it has six pronunciations. Before all single nasals, liquids, mutes, and fricatives except *r,* it is pronounced *e*: for example, lane, tame, ape, late, wade, rake, bathe, behave. Before *r,* it is pronounced *ᴀ*: so hare. Before nasals + syllable or + consonant, it is pronounced *æ*: thus ganet, rank, lamb. Before *s* + consonant, it appears as *a*: so ass, flask. Before an absorbed *w, f,* or *g,* the sound is *oᴬ*: so awl, hawk, gnaw. A preceding *w* may modify these sounds to a partially articulated *o,* as in swan, wander, wash.

The New English letter *a* is frequently used for Old English *a, ae,* and *éa,* and less commonly for many other Old English vowels. The sound *a* is the regular representative of Old English *éa, éo,* and *ae,* before *r* + consonant ; and of *éa,* and *ae,* before silent *l* followed by *m, f,* or *v.* Examples are : hard, cart, starve, half, salve, alms. This sound is the regular representative of Old English *æ* before fricatives ; so path, grass, staff. It is the regular sound for Old English *a* before *s* + consonant ; so ass, flask. Elsewhere the use of the sound *a* is uncommon, and subject to special conditions.

Full word-lists and details will appear in the Transactions.

6. Comparison of a few Versions in regard to the Precious Stones of the Jewish High-priest's Breastplate, Exodus, xxviii. 17–20, by Professor James S. Blackwell.

In order to see whether the character of the precious stones in this passage could be determined with any certainty, I consulted the following versions : the targums of Onkelos and Palestine (with that of Jerusalem), Peshito Syriac, Septuagint, Vulgate, Armenian, modern Arabic by Smith and Van Dyck, and other modern versions in English, German, Dutch, Danish, Swedish, Polish, Bohemian, Hungarian, Irish, Welsh, French, Italian, Spanish, Portuguese, and Hebrew (some of these latter being the authorized standards in their respective countries, and others the productions of evangelists), and the mineralogical works of Nicol, Phillips, Feuchtwanger, Cleaveland, Jameson, and Dana. The result is not very satisfactory. In the first row the first stone (אדם) I hold to be carnelian after the Chaldee *achmar* and *akik* (so the carnelian is called in Yemen ; see Niebuhr, Reisebeschreibung, p. 142). The second (פטדה), commonly taken as topaz, is doubtful. For the third (ברקת), I suggest thunderstone (from the stem ברק 'to lighten '), which may have been so called from its supposed celestial origin, or its talismanic power in protecting from lightning. In the second row the first and third stones (נפך and יהלם) are altogether doubtful ; the second (ספיר) is generally agreed to be sapphire. In the third row the first stone (לשם) is indeterminable ; the second (שבו) is doubtfully rendered agate ; and the third (אחלמה) almost universally given as amethyst. In the fourth row the first name is variously translated, — it is the doubtful tartessus (תרשיש), — and the third (ישפה) is usually taken to be jasper. Thus, of these eleven, only two can be said to be known with any certainty.

In respect to the second stone (שהם) of the fourth row, rendered onyx in the English version, I would hazard the conjecture that it is jade. From the Hebrew

root, as preserved in the Arabic conjugates, we may infer that the *shoham* had the following characteristics: It was green, pale, or leek-colored, translucent, and had splinters, or arrow-shapes, on the fresh surface of fracture. The *burtl*, which is the Chaldee equivalent of the Hebrew *shoham*, was sometimes strung on strings and girt about the heads of pregnant women, and was probably the אבן תקומה, or stone of resurrection, mentioned in the Talmud (*Shab.* 66: 2) as being worn even on the Sabbath, that it might prevent miscarriage. The coin ornaments for hair decoration, worn by Syrian women at present, may be a survival of the ancient custom without its ancient significance; or probably its significance remains, and, from the seclusion of Eastern women, and the indisposition of Eastern men to speak of their women, it has escaped the knowledge of travellers. In connection with this it is interesting to note that the peasants of Germany hold the jade celts as having a mysterious power in assisting the birth of children. The jade is also at present used in India, being formed into chains and small plates, and worn as an amulet attached to the neck (*Cleaveland's Mineralogy*, p. 358). The jade has all the known characters and uses of the *shoham* or *burtl*, and I know of no other stone that has them. It is pale or leek-green; it is translucent, and occasionally partly transparent; it is characterized by white-colored splinters (*Jameson's Mineralogy*, vol. ii. p. 290); is capable of being polished (*Cleaveland, l. c.,* p. 337); is susceptible of being cut into any form (*Ure's Dict. of Arts*, etc., vol. ii. p. 769); and was and is used as an amulet. It is hard enough to scratch glass (*Feuchtwanger, l. c.,* p. 361), and was doubtless the stone used for incision in embalming, and in circumcision, whence it became venerable and sacred. It may be in connection with this old employment that it has the name of *Egyptian Stone* (Pietra d'Egitto) among lapidaries. Jameson (*l. c.,* p. 290) says it is the ὄμφαξ of Theophrastus, which was engraved and used for seals, its impression probably giving a sacred and binding force to contracts (p. 231). That jade was anciently engraved is shown by the remarkable celt brought from Egypt and exhibited in England before the Archæological Institute in 1868. On both faces of the celt are Gnostic inscriptions in Greek, arranged on one face *in the form of a wreath*. " It was doubtless regarded," says Evans, in his account of it (*l. c.,* p. 55), " as possessed of some mystic power." The wreath-shape recalls the wreaths of *burtl* worn on the heads of Jewish matrons.

A wider search of Jewish records than I have been able to make may throw some additional light upon this obscure subject. Jade seems to be found native only in Eastern Turkistan, in the Himalaya Mountains (*Phillips's Mineralogy*), and in New Zealand; but it may have been carried westward by commerce or by migrations.

The Secretary read a letter, the substance of which is here given, from Dr. Isaac H. Hall, of Philadelphia, Pa.

I have paid no little attention, especially while in the East, to the subject of the precious stones of Scripture, and think the (American) Arabic Bible incomparably the best version of every one of the texts concerning them. Excepting Genesis and Exodus, that Arabic Bible-translation is the work of Dr. Van Dyck. I once asked him if he thought he was much nearer the truth in these matters than the recent commentators. He said that some doubts would probably always be unresolved; but that he had made some improvements which the Occidentals gen-

erally could not well understand. He was familiar with the ancient versions, but he had derived a great deal of help from various Oriental books, and had incorporated the results obtained from them into his Bible. He had gathered all the works he could get on the subject, both printed and manuscript, chiefly the latter, from Egypt to Asia Minor, and from the Mediterranean to Persia, and even further east. The general credit for the Arabic Bible belongs to Dr. Van Dyck; but for Exodus, where many names for precious stones occur, Dr. Eli Smith, who translated that book, must have equal credit with Dr. Van Dyck.

The Arabic lexicons do not help very much to an understanding of the terms employed in this translation, unless one has had some practice in the Arabic technical literature. If a man like Dozy, of Leyden, should get up a lexicon of the Arabic precious stones, it might be very useful. I imagine that no great aid to an interpretation is to be had from the versions, except the Septuagint and Peshito Syriac, and their defects are known in this matter. The very modern versions ought to be better, but I think that some of the better modern commentators are better than the versions, excepting the Arabic Bible.

7. On Mixture in Language, by Professor W. D. Whitney.

Professor Müller, in the first series of his Lectures on Language, lays it down as an " axiom " that a mixed language is an impossibility. By a mixed language, however, he does not mean one with mixed vocabulary, since mixture of this kind is well-nigh or quite universal; he holds, rather, that languages, "though mixed in their dictionary, can never be mixed in their grammar ; " and by " grammar," as thus used, he means only the inflectional system, of declension and conjugation. Müller's doctrine accordingly may be thus expressed : 1. There is a part of a language, namely its inflectional system, which appears to be inaccessible to mixture; 2. in virtue of this, a mixed language is an impossibility ; 3. hence, the unmixableness of language is an axiom of linguistic science. On the other hand, Professor Lepsius, in his Nubian Grammar (Introduction, p. lxxxv.), says : " It is at present an assumption usually made, that the vocabulary of one language may indeed to a great extent be transferred to another, but not its grammatical forms and their use. The linguistic history of Africa . . . shows this to be a prejudice." Such a sharp contrast of views seems to make it desirable to submit the subject to a new and careful consideration. This was attempted in Professor Whitney's paper, which reached the following principal conclusions :

There is nothing in the least axiomatic about the unmixableness of a language, or of any part of it ; so far as properly held, this doctrine is only an induction from the facts of language-mixture, as observed by us in a certain number of cases ; and such cases, though tolerably numerous and varied, are far from representing all the possible circumstances of mixture ; nor has the mode of working of the forces concerned been clearly enough demonstrated to give the principle any other than an empiric character, applicable to cases analogous with those already observed. Lepsius, then, although not justified in calling it an " assumption " and " prejudice," may prove to be in the right in claiming that it should not be brought up in bar of his theory as to the relationships of African languages. When the speakers of two diverse tongues are brought into contact or commingled with one another, the great possible variety of linguistic results

may be rudely classified under three heads: 1. Each tongue maintains itself nearly unchanged, and the community, or a part of it, becomes bilingual, as at present in the border-lands of Arabic and Turkish and Iranian speech. 2. One tongue, remaining almost unmixed, crowds the other out of existence, as in the Latinized countries of southern Europe. 3. A notably mixed tongue arises, like the English. And where this last is the result, it appears everywhere that the borrowing language takes in the material of the other as crude material, and proceeds to use it according to the rules of its own grammar. It does not by a first process import the structure of the other language. So far as this goes, Müller's dogma, though no axiom, has a certain truth. But the material thus borrowed may, by a secondary process, work itself into any part of the structure of the borrowing language that is still in a formative, growing condition; and in this way every part of the latter is capable of becoming mixed. Thus, in English, such pairs as *pure* and *purity* being numerously imported, they come to be regarded in the same light as *good* and *goodness*; and the foreign *ity* is then used, like the native *ness*, and for the same reason, in making new derivatives. And this and its like has gone on upon such a scale in English that, since the apparatus of derivation is just as much a part of grammatical structure as is that of inflection, English cannot justly be declared unmixed in its grammar; so that the "axiom" is not even strictly true as a fact. It is conceivable, moreover, that cases enough like *phenomenon* and *phenomena*, and *stratum* and *strata* should be imported to introduce a foreign mode of plural-making. And such numeral words as *second*, and such indefinite pronouns as *one* (in *one says*, etc.), and such frequent and indispensable parts of the apparatus of sentence-making as the adverb-preposition *around* and the conjunction *because*, further show how deeply, by the ordinary processes of linguistic growth, elements of foreign origin can be brought into the formal parts of a language.

It seems, then, that the special conditions of each separate case of mixture have to be carefully considered in determining the possible effects of mixture: and especially, the condition of a borrowing tongue in respect to its capacity — that is, its habits — of growth. What is most to be avoided is the assumption, which many are ready to make, that when two languages are brought face to face, one of them notices and is inclined to imitate the habits of the other.

8. On the Language of the Isle of Man, by Mr. W. S. Kerruish, of Cleveland, Ohio.

Mr. Kerruish, to whom the Manx Gaelic was a vernacular, explained the divisions of the Keltic family, the place of the Manx in the Gadhelic division (beside the Scotch Gaelic and the Irish), and its diversity from the languages of the other division, the Kymric (including Welsh, Breton, Cornish, etc.). The paper discussed Manx orthography and phonetics, initial inflection of nouns, and the conjugation of verbs. It also gave some specimens of Manx poetry.

A recess was taken until afternoon.

CLEVELAND, OHIO, Wednesday, July 13, 1881.

AFTERNOON SESSION.

The Association was called to order by the President, Professor Packard, at 4.15 P. M.

The Auditing Committee reported that the accounts of the Treasurer had been compared with the vouchers and found correct. The report was accepted.

The Secretary, Professor Lanman, made a report of further business transacted by the Executive Committee. [Cf. page 3.]

d. It had been voted to report to the Association for action at the next annual meeting (see page 40 — Article VI. of the Constitution), an amendment to the Constitution, proposed by Professor T. D. Seymour, of Yale College, according to which the first clause of Section 2 of Article IV. shall read as follows :

2. There shall be an annual fee of three dollars [*instead of* five, *as now,*] from each member.

e. It had been voted to lower the price of *complete sets* of the Transactions from two dollars a volume to one dollar a volume.

f. The following new members had been elected :

Mr. W. S. Kerruish, of Cleveland, O.
J. O. Notestein, Professor of Latin, University of Wooster, O.
Calvin Thomas, Assistant Professor of Sanskrit, Michigan University, Ann Arbor, Mich.
Zachary P. Taylor, Principal of the Central High School, Cleveland, O.
Elisha Jones, Assistant Professor of Latin, Michigan University.
W. R. Perkins, Assistant Professor of Latin and Greek, Cornell University, Ithaca, N. Y.
Charles W. Super, Professor of Greek, Ohio University, Athens, O.
Newton B. Hobart, Principal of Preparatory School of Western Reserve College, Hudson, O.
Charles W. Reid, Professor of Greek, Allegheny College, Meadville, Pa.
C. T. Beatty, Principal of High School, East Saginaw, Mich.
H. McL. Harding, Principal of Brooks Academy, Cleveland, O.
Henry Garst, Professor of Latin, Otterbein University, Westerville, O.
L. S. Potwin, Professor of Latin, Western Reserve College.
Miss Harriet E. McKinstry, Instructor in Latin, Lake Erie Female Seminary, Painesville, O.
James M. Gregory, Professor of Latin, Howard University, Washington, D. C.

g. The Executive Committee returned the resolutions touching the degree of Doctor of Philosophy (page 4), with the recommendation that they be passed.

These resolutions were laid before the Association. Professor March, while admitting the gravity of the evil arising from the abuse

of the power to confer degrees, thought the contemplated action lay without the proper sphere of the Association. Professor Gildersleeve coincided with Professor March. Professor J. W. White gave some illustrations of the way in which the degree is now conferred. He urged that some protest ought to be raised against the practice, and that there were no non-local organizations in the country from whom such a protest could come with more propriety or with less danger of invidious reception.

The question being put, the resolutions were passed.

The President appointed as a committee of three to confer with the American Association for the Advancement of Science, Professor John Williams White, Professor Charles R. Lanman, and Professor Irving J. Manatt.

The Curator of the Association, Professor Lanman, made a report as a matter of record.

There were in his charge at Cambridge, Mass., two chests containing Proceedings and Transactions, records and correspondence, and sundry books that had been given to the Association; further, there was in the Watkinson Library Building at Hartford, Conn., a considerable stock of the publications of the Association; and, finally, there were a few of the same publications at New Haven, Conn., in the care of Professor Whitney and Mr. Addison VanName.

On motion, the President appointed a committee, consisting of Professors March, J. W. White, and T. D. Seymour, to nominate officers for the ensuing year.

On motion, Professors Whitney, D'Ooge, and Toy were appointed a committee to recommend a suitable time and place for the next meeting.

The Vice-President, Professor F. D. Allen, of Harvard University, then took the chair and the reading of papers was resumed.

9. The Use of Abstract Verbal Nouns in Thucydides, by Dr. E. G. Sihler.

One of the most striking features of the style of Thucydides is his tendency towards condensation; and this is particularly observable in his use of verbal nouns in -σις. Such nouns occur, roughly speaking, 400 times. A few of them had obtained general currency before the time of this historian, — for example, ὄψις, τάξις, sundry compounds of -βασις, πρόφασις, etc. The great majority of them, however, are distinctly Thucydidean. Stahl's edition contains 471 pages. Using this as a basis of calculation, these verbals occur, on the average, once in 1⅛ pages of text. The average amount of text in which one occurrence is found, is, for the several books, as follows: for book i., 1⅔ pages; ii., 1⅓; iii., ⅝; iv., 1⅓; v., 1⅓; vi., 1⅞; vii., ⅝; viii., 2. Comparing these with the general average, 1⅛,

the diversities are, on the whole, too small to warrant any inferences as to the stylistic development of Thucydides, although the last book may possibly have been less thoroughly worked over into the characteristic diction of the author.

In respect of function and usage these nouns show differences sufficient to be made the basis of their classification. They are found:

1. As substantives, pure and simple; as subject, or object, or predicate-noun; and in prepositional phrases.
2. With a genitive objective attached. Here their verbal force is well maintained.
3. Introducing constructions such as would properly follow a verb.
4. In dependence upon a genitive subjective or possessive.
5. In periphrases with ποιεῖσθαι, γίγνεσθαι, ἔχειν, παρέχειν, εἶναι.

1. They are employed with concrete force; as, ἐπίκλησις, equivalent to ὄνομα, i. 3. 2. This is especially the case in couplets; e. g. καὶ λιμένα καὶ ἐφόρμησιν, vi. 48. Double compounds occur; as, προεκφόβησις, v. 11. 2. Modified by an attributive of some complexity, these verbals make a very concise phrase; thus, διὰ τὴν ἐκ τῆς Λευκάδος ἀναχώρησιν, iii. 102. 3. The verbal sometimes replaces a subordinate clause; as δεδιὼς τὴν δίωξιν, iii. 33. 1.

2. This class comprises 125, or nearly one third of the whole. Here the word in -σις retains the active function of a verb, and also, as a noun, admits of precise determination of its logical relation to the leading clause or word. This relation may be: temporal, as, μετὰ Ἰλίου ἅλωσιν, i. 12. 3; instrumental, as, χρυσῶν τεττίγων ἐνέρσει, i. 6. 3; final, as, ξύμμαχοι ἐγενόμεθα . . . ἐπ' ἐλευθερώσει, etc., iii. 10. 3.

3. The verbal introduces an indirect question (i. 73. 3) or an object clause (i. 132. 5), κατὰ ἐνθύμησίν τινα ὅτι, κτλ. The future infinitive occurs twice with δόκησις. The dative of interest is found with καταδούλωσις. The genetivus privandi of στερεῖν is maintained with στέρησις, ii. 63. 1.

4. Under this head fall about 42 cases. Here double compounds are frequent; as ὀργιζόμενοι τῇ προαναχωρήσει τῶν Μακεδόνων, iv. 128. 4. Genitives subjective and objective are combined at vii. 34. 6. A number of nouns assume a concrete sense (e. g. διάβασις, ' ford ').

5. These verbals occur about 70 times in periphrasis. The verb is ποιεῖσθαι in nearly half (32) of these instances, and γίγνεσθαι in a quarter. The former is used especially in speaking of military movements; as, ἐποιεῖτο τὴν δίωξιν, iii. 33. 3.

With reference to the use of these verbals, Mr. Sihler compared Thucydides with his predecessors Herodotus and Antiphon, and his successor Xenophon.

The eighth book of Herodotus is equivalent to about one sixth of Thucydides. The occurrences of the -σις nouns number 40, and are to those in an equal amount of Thucydides as 3 to 5. But 15 are nouns long in vogue, like ὄψις and φύσις. The accumulation and insertion of attributives and other modifiers is the feature of Thucydidean diction most strikingly absent in Herodotus.

Antiphon's extant works are in bulk rather more than one eighth of Thucydides. The verbals occur 38 times, or thrice where Thucydides would use them four times. The percentage of new and original formations is much larger than in Herodotus.

The first three books of Xenophon's Hellenica equal one fifth of Thucydides.

There are but 25 occurrences; or considerably less than one third as many as Thucydides would have in that space. The variety is limited and nouns like πρόφασις, στάσις, πρᾶξις, κρίσις, and φύσις make up most of the count. A very small number of free formation are noteworthy: thus, φοίτησις, i. 6. 7, and ἀντίληψις, iii. 5 5.

10. On the Vowel-scheme of Melville Bell, by Professor Samuel Porter, of the National Deaf-mute College, Washington, D. C.

The main aim of this paper was to offer suggestions in the way of supplement to and rectification of the vowel-scheme of Mr. Bell, — as the same is set forth, in a slightly modified form, by Mr. Henry Sweet, in his Handbook of Phonetics.

One thing to be desired is a more precise description of the articulating organs, and of the oral configuration for the several vowels. The forward boundary of the guttural passage needs to be defined, not only as made by the division between soft and hard palate, above, but also, on the sides, by the inner and anterior edge of the ascending branch of the lower jaw, behind which line the guttural passage widens out and thus makes a compartment which is, or may be, distinctly separated from the rest of the oral cavity. Again, it needs to be noticed that, as the dome of the hard palate widens in receding from the front and the tongue also widens from the point backwards, the passage made by applying the tongue to the palate at different points, in the positions for *i, e, æ*, respectively, would naturally differ in breadth. On the soft palate also, there would be a similar difference for *u, o*, and *â*. Again, not only the place of greatest constriction between tongue and palate should be noted, but the mode of formation (and hence the position and limit) of the resonance-chamber forward of this place needs to be distinctly described. This (for non-labials, and as an inner chamber for labialized vowels,) is made by the tongue flaring away from the palate. It is closed on each side by contact of margin of tongue with palate or with the walls of the guttural passage; and its forward limit is just where this contact ends. Thus, the place of constriction forming, as it were, the neck of a bottle, the resonance-chamber in question would be the flaring mouth of the bottle. It is important in every case to note the limit of this resonance-chamber. Another cavity, answering to the body of the bottle, lies back of the place of constriction; but this probably contributes far less to the quality of the vowel.

Instead of variation of tongue-position "horizontally" for the "back," "front," and "mixed," and "vertically" for the "high," "mid," and "low" vowels, these differences are, in fact, all made alike by horizontal variation. This is virtually admitted by Mr. Sweet (*Handbook*, page 211). *Outer* and *inner* would seem more appropriate terms than "high" and "low."

The *a* (in *father*) is wrongly placed as "mid-back-wide;" and should be set by itself, for reasons to be stated further on. And, for the mixed vowels, a dual instead of the threefold division is sufficient. Thus we should have nine leading vowel positions: — three front, *i, e, æ*; two mixed, *eu* and *eû* (as in *leur* and *jeûne*, French);* three back, *u, o, â* (as in *all*); — these eight having, in this order, the place of constriction and also the limit of the resonance-chamber re-

* Bell and Sweet regard the *eu* French, not as a "mixed" vowel, but as an *e* labialized. Of course, it is a labial anyway.

ceding further and further by eight successive steps ; — the three front positions being under the hard palate; the three back on the soft palate and limited entirely to the guttural passage ; and the *eû*, of the mixed, limited to the guttural passage, while the *eu* reaches over across the division between soft and hard palate ; the ninth, the *a*, is to be described below. For the back vowels, the axis of the resonance-chamber inclines more and more upward from *â* to *u ;* for the mixed, points directly forward ; and for the front, inclines downward.

The difference between the "narrow " (or "primary ") and the "wide," as it is in fact, and as described by Mr. Sweet (*Handbook*, page 9), would better be designated by the terms *close* and *open*. It makes the difference between the quality of the long *i, e, æ, u, o, â*, and *eû*, respectively, and, on the other hand, the quality we give to the corresponding English short and stopped vowels. Of this difference, there may with advantage be noted, not merely two, but, for the seven vowels just named, as many as four degrees, which may be designated as the *close*, the *half-open*, the *open*, and the *open-depressed*. We need the second, the half-open, for the quality given to the short vowel in the Continental languages generally, the same which we hear in the attempts of foreigners and of Scotchmen to pronounce the short stopped vowels in English. Sometimes, also, to mark the quality of a vowel in unaccented syllables. Also, for the terminal part of our long *i* and of our *ou* diphthong. The open-depressed occurs in a drawling pronunciation of our short vowels, that is still habitual to some extent in New England, and elsewhere also, and perhaps may be heard almost anywhere occasionally in some such words as " Well " and " Yes." Without any such inelegance, it may be employed on these vowels in the way of emphasis. Tongue-depression is a natural attendant on the nasal twang, as this draws forward the soft palate, opening the way to the nose. That the *eû* should admit of four degrees (the fourth being made by depression from the *u* in *up, but*), while the *eu* (of which our *ea*rth and b*i*rd are non-labial forms) can admit of not more than two degrees at the most, is because the *eû* position is wholly within the guttural passage, thus allowing range of tongue-movement vertically, while for the *eu*, the position reaching further forward, there can be no such movement without breaking the lateral contact entirely. The *eû*[4] is the initial of our long *i* and our diphthong *ou*.

The *a* is to be set apart from the other vowels, for the reason that the place of constriction is not on tongue and palate at all; but the constriction is between the epiglottis, or the part of the tongue just above the epiglottis, and the back wall of the pharynx. Sounding this vowel on a low pitch, we can easily produce a decided trill from the epiglottis; and more or less of a fricative quality from this source is always to be distinguished in this vowel. On the other hand, in the *â, o*, and *u* vowels, there is always more or less of a peculiar quality that proceeds from the soft palate, and that is not perceptible at all in the true *a* vowel. The evidence of the ear, that of the eye, and that of the touch, — all go to exclude this vowel from the category of the *â, o, u*. Again, the *a* differs from all other vowels in this, that, in their case (laying out of account now the fourth degree), the open is naturally shorter than the close, and the short tends to be less close than the long; while for the *a* the reverse is the fact, the tongue is raised for the shorter and is depressed for the longer form of this vowel. For a test, compare the different *a*'s in the French.

Placing the *a* thus by itself, we have the only arrangement that is in accordance with facts in the history of language. We have it in a position from which there is an easy, and physiologically perfectly natural, transition both to the front vowels under the hard palate and up along the back series on the soft palate. To locate it as "mid-back-wide" is to put it out of all such relation. Mr. Sweet (*History of English Sounds*, p. 28) has accordingly been led to assign as the point of divergence, not a proper *a* vowel, but an *ā*, the "low-back-wide," the "Scotch short *a* in *man;*" which, in fact, has no direct relation of easy transition with any front vowel.*

It is to be remarked that, for the *a* vowel, the effective resonance-chamber does not extend forward of the boundary of the guttural compartment. This is proved by uttering, as may be done, a clear and proper *a* with the tongue retracted within this boundary.

It is claimed as a merit on the part of the Bell system that it does not assume a correspondence between acoustic and physiologic characters; that is to say, it admits, and contends, that sounds presenting similarity may proceed from quite dissimilar organic adjustments, — that thus, for instance, the French *peur* is liable to be confounded with the English *purr*. But, if the vowel in *peur* is really spoken, in the way Mr. Sweet thinks correct, as a labialized *e*, it will hardly, in fact, be confounded with or likened to the *u* in *purr*. And, at all events, it is only so far as sound corresponds to organic adjustment and action, that a physiological scheme of the vowels can have any value whatever. If it were so that precisely the same sound could be produced by two or more different organical instrumentalities, the value of any such scheme would be so far diminished. To deny that there are generic characters of sound that correspond to generic organical characters, would be to detract from the value of the Bell vowel-scheme to an extent doubtless beyond what Mr. Sweet would approve.

It is to be noticed that there is a way of adjusting the point of the tongue upon the palate with an effect that shall simulate, though not exactly imitate, that of labial contraction. The two adjustments may even be combined, as they perhaps sometimes are in the French *u* and *eu*, or the German *ü* and *ö*. This adjustment is to be carefully distinguished from the resonance-chamber as that exists apart from such modification.

These criticisms and the proposed amendments are offered, not with any disposition to disparage the work of Mr. Bell and of Mr. Sweet, but in hearty recognition of the eminent service they have rendered to phonetic science, and with the view of contributing to the correction of what, if they are defects, could not fail to hinder the full and final success of the scheme to which these gentlemen have given so much of their labor.

The Association adjourned at 6.15 P. M. until Thursday morning.

In the evening, about thirty of the members took part in an excursion from the Forest City House through Euclid Avenue to East

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* By Dr. Graham Bell, as well as by Mr. Sweet, the *a* in *father* is ranked as "mid-back-wide." The elder Mr. Bell has never so described it; the implication to the contrary, in the note in the separate issue of the *Proceedings*, was erroneous. But, what is hardly less objectionable, he does give this position to the *a* in *ask, path*, etc.

Madison, and thence to Gordon Park on the border of Lake Erie. Upon their return a collation was served in the Public Library Building.

CLEVELAND, OHIO, Thursday, July 14, 1881.

MORNING SESSION.

The Association came to order at 9.15 A. M. The minutes of Wednesday's sessions were read by the Secretary, and approved.

Remarks upon Professor Porter's paper were made by Dr. B. W. Wells and Professor Whitney. The reading of communications was resumed.

11. On Latin Pronunciation, by Professor M. M. Fisher, of the University of Missouri. ˉThis was presented by his colleague, Professor Blackwell.

The author criticised the "Roman" or "Restored" method, claiming that it could never be taught with uniformity inasmuch as its ablest advocates differed widely in regard to its details. He argued that the true ancient pronunciation could never be positively and fully known, and that, from practical considerations, it was better to adhere to the English system of pronouncing Latin.

Dr. Sihler spoke of the agreement of the best German authorities in regard to the general correctness of the Roman or historical method.

Professor J. B. Weston, of Antioch College, Yellow Springs, Ohio, said that men did not agree respecting *all* sounds in English, and that a disagreement concerning a few sounds in the Roman pronunciation did not militate against its adoption as a system. Moreover, it was better to be near the truth than far from it.

12. What is Articulation? by Professor Whitney.

The word "articulate" is generally used as distinctively descriptive of human speech; but for the most part without any clear idea of what it really means, or why human speech should be designated in this particular way. And this unclearness is found not only in popular use, but in that of scientific treatises, even those of a high class. In Sievers's *Lautphysiologie*, for example, "articulation" is defined and used in a way that makes it the precise equivalent of "utterance," voluntary production of sound by a living creature, whether human or other than human. Is this authorized, or to be approved?

The term goes back to the Greek ἔναρθρος, which means 'jointed,' and is used primarily of physical jointing, as that of a limb, or of a stalk of grass. The corresponding noun and verb are ἐνάρθρωσις and διάρθρωσις, and διαρθρόω. These are rendered by the Latin *articulo*, denominative of *articulus*, 'joint,' and its various forms and derivatives.

Now articulation in this its literal sense, of jointedness, is in very truth *the* characteristic of human speech-utterance, distinguishing it from other varieties of human utterance, as laughing, crying, groaning, yelling, etc., and from all brute utterance. Speech moves on by a succession of similar parts, separate but joined on to one another — namely, syllables. Articulation is virtually syllabication, — a breaking of the stream of utterance into joints, by the intervention of closer utterances, or consonants (only exceptionally of hiatus), between the opener utterances, or vowels. The essence of articulation lies not in the mode of production of the individual sounds, which is virtually alike in all animals possessing voice, but in the mode of their combination. We recognize this meaning plainly enough still, in saying that a person "articulates well," when the transitions between vowel and consonant elements are clearly made; or in accusing of bad articulation a singer who slurs the consonants and hardly utters any but vowel tones, or a mumbling indistinct speaker. Articulation in this sense is a still higher characteristic of speech, inasmuch as it is an acquired one, coming with the historical development of speech. We have every reason to believe that the first significant uttered elements were monosyllables, earlier open ones, perhaps later in part closed ones (this is a disputed point). In this stage language was not properly articulate; each utterance was a simple isolated voice-gesture, in meaning equivalent to a whole sentence. But such an isolated utterance was made complicate, in part by repetition or reduplication, in part by combination with other like utterances: this combination being either syntactical, as now in Chinese, so that each sentence became an articulated whole, each joint having its own meaning and motion, or, on the other hand, in part also agglutinative, so that each word became an articulated whole, its members having each its own part to play as a joint, and the sentence became a jointed entity of double complication. Our own children have to go through a similar course: they begin with simple utterances, and with isolated ones, learning later, by practice, to joint these on to one another in an unbroken articulated succession. And the organs of the lower animals are not incapable of producing single sounds like enough to ours; but those animals are incapable of the development which would lead them to combined articulated utterance.

It appears, then, as if the Greeks made one of their very happiest hits, showed their genius for observation and distinction at its best, in calling human utterance 'jointed;' no other term could so well describe its phonetic character, nor be so deeply founded in its history. It is a great pity if we cannot show the secondary ability to understand what they meant, and to keep the word to its true value. If there really is no available German word for 'utter,' and *articulate* must hence be reduced to that sense in German use, let it be done at least with the confession and excuse of poverty, and not as if no degradation of the word, but only a proper continuation of it in its ancient significance, was implied in such use.

13. On the Origin of *ν* Movable in Greek, by Professor Fisk P. Brewer, of Iowa College, Grinnell, Iowa.

The origin of *ν* movable in Greek seems to have been different after different endings.

1. In third-singulars in -ε. Here the view of Deventer is accepted, that the

forms with -ν are earlier than those without. Otherwise, the ν should appear under similar phonetic conditions after -ε in the second person and elsewhere.

In the parent speech these forms ended in -τ. Deventer supposes that this -τ was changed directly to -ν, but gives no other instance of such a change. Perhaps the true explanation is that there was an assimilation of the third-singular to the third-plural. When the earliest Greeks began to discard final mutes, and to modify all such words as *ἔλυετ and *ἔλυσετ, they remolded these to ἔλυεν and ἔλυσεν, in imitation of the new plurals ending in -ον and -σαν. About the same time, probably, the third-plurals assimilated in accent to the third-singulars,

*ἔλυετ and *ἐλύοντ, *ἔλυσετ and *ἐλύσαντ

becoming ἔλυεν and ἔλυον, ἔλυσεν and ἔλυσαν.

This was not a development of ν from τ, but a replacement of one letter by the other. The change may have been facilitated by the fact that ν or αν was in the earliest times a representative of a third-person pronoun in Greek verbal endings, and in later times remained a recognized demonstrative element.

N movable in these forms may be considered, then. a personal ending of secondary formation which began to fall away, but was continued in the literary period, subject to phonetic rules for its use and omission.

2. In third-plurals in -σι. The earlier form was λύοντι, which never assumes ν. Such forms as λύονσι and λύωνσι also exist. From these came the ordinary λύουσιν by transfer of the liquid, -νσι changing to -σιν. The final ν, representing in its original position a third-person pronoun, was unstable in its new place, and became a movable letter.

3. Later all other words in -σι assumed ν as a mere phonetic addition, acquiring double forms after the analogy already established in the frequently recurring forms of the third plural. ἔστιν seems anomalous, though Deventer considers the termination -στι sufficiently like -σι to have assumed ν by the same analogy.

It is admitted that the above explanation rests on slender evidence, but it is claimed to accord better with the general process of word-formation than to consider ν movable from the beginning a merely euphonic addition.

14. On the Use of πρίν in the Attic Orators, by Professor B. L. Gildersleeve, of the Johns Hopkins University, Baltimore, Md.

In the introductory part of the paper the author took occasion to show how carelessly and inconsistently the particle had been handled even by leading writers on grammar. The negative element which is involved in πρίν has been overlooked, and false rules for use have been laid down. The difficulty of the combination with πρίν and the infinitive has not been fairly met. As a prepositional combination with the infinitive, it is an anachronism, and yet it is hardly explicable on other grounds.

After detailed strictures on various points the author proceeded to present, with a few comments, the normal use of πρίν, with a tabular conspectus of the occurrences in sentences that might have assumed the finite form; but the examples weigh little in comparison with the whole number, and we are far from the Homeric freedom, — nearer the scenic norm. πρίν with the infinitive after affirmative sentences is becoming a rule; πρίν with the indicative after affirmative clauses is extremely rare. Perfect infinitive and present infinitive are rare

and carefully used, and there is little good warrant for πρὶν ἤ or the omission of ἄν. Of individual peculiarities in the handling there is not much to be said. Isokrates in his more formal orations treats πρότερον — πρίν as he does everything else, in the interest of his æsthetic seesaw and fastidious rhythm. There is more masculinity and familiarity in the abrupt use of πρίν, as for instance in Lysias.

15. On the use of the Aorist Participle in Greek, by Professor T. D. Seymour, of Yale College, New Haven, Conn.

The aorist participle seems to have no more natural right than the aorist infinitive to the signification of past time. We find examples of this *achronic* use, e. g., in Homer, Σ 210, ἅμα δ᾽ ἠελίῳ καταδύντι | πυρσοί τε φλεγέθουσιν. A paper was presented to this Association at Baltimore in 1877 on the "Temporal Coincidence of the Aorist Participle with the Primary Verb," in ἤκουσε εὐξαμένου, κτλ., by Professor Merriam.

Although there are many instances to be found of this original use, yet the rule is that the aorist participle regularly refers to an action or state "which is past with reference to the time of the leading verb." An explanation of this may be found by an examination of the different classes of participles.

The aorist participle when attributive clearly corresponds to the aorist indicative (οὗτος ὁ λύσας = οὗτος ὃς ἔλυσε), and as the aorist infinitive refers to past time when it represents the indicative, so naturally is it with the participle. When this participle corresponds to the subjunctive or optative the case is different, as we should expect.

The same principle holds with the supplementary participles; ἔλαθεν ἀφικόμενος corresponds to ἀφίκετο λάθρα, ἔτυχεν ἰδών to εἶδεν τύχῃ, φαίνεται σπουδάσας to φαίνεται ὅτι ἐσπούδασε, κτλ. In all these instances the participle represents the indicative mood.

For the circumstantial participles it is instructive to compare, e. g., Homer, Δ 149, ὡς εἶδεν μέλαν αἷμα ῥίγησεν, and 217, ἐπεὶ ἴδεν ἕλκος, ἐπὶ φάρμακα πάσσε, with 279, ῥίγησέν τε ἰδών. So ἐπεὶ παύσαντο πόνου κτλ. would be expressed by most prose writers παυσάμενοι πόνου κτλ. ἐθαίνυντο. It is a commonplace saying that in the English idiom two verbs are used where the Greek preferred a verb and a participle. Thus εὔχετο χεῖρας ἀνεσχών is logically though not rhetorically equivalent to ἀνέσχε χεῖρας καὶ εὔχετο, ἄνοιγε ἀνύσας to ἄνυσον καὶ ἄνοιγε; so in Homer, Α 85, we have θαρσήσας μάλα εἰπέ and, 92, θάρσησε καὶ ηὔδα.

Often the participle corresponds to the subjunctive or the optative mood; so Homer, α 163, εἰ κεῖνόν γε ἴδοιατο νοστήσαντα κτλ. may be resolved into εἴ γε νοστήσειε . . . . πάντες κ᾽ ἀρησαίατ᾽ ἐλαφρότεροι πόδας εἶναι, and perhaps Κροῖσος Ἅλυν διαβὰς μεγάλην ἀρχὴν καταλύσει into ἐὰν διαβῇ κτλ.

In general, however, the aorist participle, whether attributive, supplementary, or circumstantial, represents the aorist indicative, and thus naturally refers to time prior to that of the principal verb. In later Greek, as was to be expected from the predominance of this reference to past time, this participle was used as an absolute past participle.

Remarks were made on this paper by Professors Price and Gildersleeve.

16. **Report of the Committee on the Reform of English Spelling, by the Chairman, Professor F. A. March, of Lafayette College, Easton, Pa.**

The Philological Society of England has just issued a pamflet entitled " Partial Corections of English Spellings aproovd of by the Philological Society." These corections ar the result of a discussion introduced by the President, Dr. Murray, in his retiring adress on the 21st May, 1880, and continued thru six meetings. Mr. Sweet was authorized to prepare a statement of the results, and this was finaly adopted at a special general meeting on January 28th, 1881. The corections ar made in the interest of etymological and historical truth, and confined to words which the changes do not much disguize from general readers.

Your Comittee finds that the corections of the Philological Society's pamflet ar such as ar contemplated in the report of your Comittee of 1875, and in subsequent reports; and it recomends the imediate adoption of the following corections which ar therein set forth, and which ar uzed in this report :

1.   e. — Drop silent *e* when foneticaly useless, as in *live, vineyard, believe, bronze, single, engine, granite, eaten, rained,* etc.
2.   ea. — Drop *a* from *ea* having the sound of ĕ, as in *feather, leather, jealous,* etc. Drop *e* from *ea* having the sound of a, as in *heart, hearken.*
3. eau. — For *beauty* uze the old *beuty.*
4.   eo. — Drop *o* from *eo* having the sound of ĕ, as in *jeopardy, leopard.* For *yeoman* write *yoman.*
5.   i. — Drop *i* of *parliament.*
6.   o. — For *o* having the sound of ŭ in *but* write *u* in *above* (abuv), *dozen, some* (sum), *tongue* (tung), and the like. For *women* restore *wimen.*
7. ou. — Drop *o* from *ou* having the sound of ŭ, as in *journal, nourish, trouble, rough* (ruf), *tough* (tuf), and the like.
8.   u. — Drop silent *u* after *g* before *a,* and in nativ English words, as *guarantee, guard, guess, guest, guild, guilt.*
9. ue. — Drop final *ue* in *apologue, catalogue,* etc.; *demagogue, pedagogue,* etc.; *league, colleague, harangue, tongue* (tung). Drop *e* in *argue, ague.*
10.   y. — Spel *rhyme* rime.
11.   Dubl consonants may be simplified :
Final *b, d, g, n, r, t, f, l, s,* as *ebb, add, egg, inn, purr, butt, bailiff, dull, buzz* (not *all, hall*).
Medial before another consonant, as *battle, ripple, written* (writn).
Initial unaccented prefixes, and other unaccented syllabls, as in *abbreviate, accuse, affair,* etc., *curvetting, traveller,* etc.
12.   b. — Drop silent *b* in *bomb, crumb, debt, doubt, dumb, lamb, limb, numb, plumb, subtle, succumb, thumb.*
13.   c. — Change *c* back to *s* in *cinder, expence, fierce, hence, once, pence, scarce, since, source, thence, tierce, whence.*
14. ch. — Drop the *h* of *ch* in *chamomile, choler, cholera, melancholy, school, stomach.*
Change to *k* in *ache* (ake), *anchor* (anker).

15. d. — Change *d* and *ed* final to *t* when so pronounced, as in *crossed* (crost), *looked* (lookt), etc., unless the *e* afects the preceding sound, as in *chafed, chanced.*

16. g. — Drop *g* in *feign, foreign, sovereign.*

17. gh. — Drop *h* in *aghast, burgh, ghost.*
    Drop *gh* in *haughty, though* (tho), *through* (thru).
    Change *gh* to *f* where it has that sound, as in *cough, enough, laughter, tough,* etc.

18. l. — Drop *l* in *could.*

19. p. — Drop *p* in *receipt.*

20. s. — Drop *s* in *aisle, demesne, island.*
    Change *s* to *s* in distinctiv words, as in *abuse* verb, *house* verb, *rise* verb, etc.

21. sc. — Drop *c* in *scent, scythe* (sithe).

22. tch. — Drop *t*, as in *catch, pitch, witch,* etc.

23. w. — Drop *w* in *whole.*

24. ph. — Write *f* for *ph,* as in *philosophy, sphere,* etc.

On motion, the Report was approved, and the committee, appointed in 1875, was continued for another year, the name of Professor T. R. Lounsbury, of Yale College, being added, to serve in place of the late Professor S. S. Haldeman. It now consists of Messrs. Whitney, Child, Trumbull, March, and Lounsbury.

It was voted that the reports of the committees on the time and place of the next meeting and on nomination of officers be called for at the beginning of the afternoon session.

The Association thereupon took a recess.

CLEVELAND, OHIO, Thursday, July 14, 1881.

AFTERNOON SESSION.

The Vice-President, Professor Allen, called the Association to order at 4 o'clock.

Professor March, in behalf of the committee appointed to nominate officers for the year 1881–82, reported as follows:

For *President* — Professor Frederic D. Allen, Harvard University, Cambridge, Mass.

For *Vice-Presidents* — Professor Milton W. Humphreys, Vanderbilt University, Nashville, Tenn.; Professor M. L. D'Ooge, Michigan University, Ann Arbor, Mich.

For *Secretary and Curator* — Professor Charles R. Lanman, Harvard University, Cambridge, Mass.

For *Treasurer* — Charles J. Buckingham, Esq., Poughkeepsie, N. Y.

For additional members of the *Executive Committee —*

Professor Basil L. Gildersleeve, Johns Hopkins University, Baltimore, Md.
Professor William W. Goodwin, Harvard University, Cambridge, Mass.
Professor Thomas R. Price, University of Virginia, Va.
Dr. J. Hammond Trumbull, Hartford, Conn.
Professor William D. Whitney, Yale College, New Haven, Conn.

The report was accepted, and the persons therein named were declared elected to the offices to which they were respectively nominated.

Professor Whitney reported for the committee on time and place of meeting. It was recommended that the next session be held at Boston, Mass., or some place in its immediate vicinity, on Tuesday, July 11, 1882, at 3 P.M. The determination of the precise locality of meeting was left to the Executive Committee.

On motion, the report was accepted.

At this session, the election of the following members was announced:

Professor Irving J. Manatt, Marietta College, Ohio.
Professor John L. Johnson, University of Mississippi, Oxford, Miss.

The reading of papers was resumed.

17. Shemitic or Semitic? by Professor Blackwell.

It were much to be desired that some uniformity were prevalent among scholars in the use in the English language of one or the other of the terms " Shemitic " or " Semitic." I believe the time is near at hand when the desirable uniformity will be secured, and when scholars will settle upon Semitic. The defenders of Shemitic have been chiefly, I believe, from the theological side, though Shemitic and Semitic, with a preference for the latter, both occur in Kitto's Bible Cyclopedia, in the able article by Emmanuel Deutsch. Smith's Bible Dictionary dismisses the controversy with the curt and half-indignant statement that " English scholars have lately adopted from the French the form Semitic, but there is no reason why *we* should abandon the Hebrew sound because the French find the pronunciation ˙difficult." (Vol. IV. p. 2971, *note.*) Professor Murray (*Origin and Growth of the Psalms*, p. 2) remarks that " Semitic and Semite, now so much in vogue as to be almost good usage, are survivals of the French nomenclature of the English Orientalists who learned Arabic at the feet of De Sacy." It will be observed that the statement of Smith's Bible Dictionary involves several charges: first, That English scholars have *lately* adopted Semitic; second, That there is no reason why *we* should abandon the Hebrew sound; third, That we received Semitic from the French; fourth, That the French find the pronunciation of *sh* difficult. Professor Murray grants, in addition to the third charge, that Semitic is in "*almost* good usage."

I. With regard to the first charge of Smith's Bible Dictionary, that English

scholars have "lately" adopted Semitic, it may be said that they must have lately adopted it if they were to adopt it at all, using the word "lately" in a broad sense. The term was not in general use until the first quarter of this century, having been used in Germany, as it is alleged, first by Schlözer in 1781, only nineteen years before 1800. Its use could not, however, have been general, since Eichhorn claims to have introduced it in place of "Oriental" in 1794, and could not have known of any earlier usage. If the English scholars who introduced the objectionable term, learned it, as Professor Murray asserts, "at the feet of De Sacy," they must have used it at its very earliest entrance into speech, for De Sacy was in the prime of his fame in the beginning of this century. In 1800 De Sacy was forty-two years old, had been known as a prominent Arabist since his memoir on the "History of the Arabs before Mohammed," read in 1785, and had been a professor of Arabic for five years. It was in 1806 that he was appointed to the professorship of Persian in the Collége de France, and in the same year appeared his *Chrestomathie Arabe*, three years before the death of Schlözer, and twenty-one years before the death of Eichhorn. Hence even from the very arguments of the defenders of Shemitic, it may be proved that the term Semitic preceded it in English usage. It would, therefore, be entitled to all the rights which precedence gives, and should not be evicted by Shemitic without some good grounds. Not only so, but the English pupils who had imbibed and assimilated the instructions of such a man as De Sacy, would undoubtedly have such rights as are by common consent freely granted to distinguished special learning, and would justly lay a claim to the prerogative, above other men of meaner qualifications and less acknowledged authority, of determining and fixing what our usage should be.

II. The second point of the remark in Smith's Bible Dictionary is that "there is no reason why we should abandon the Hebrew sound." Shall we then be required to say Shabbâth for Sabbath, Môshe for Moses, Shelach for Salah, Yerushalaim for Jerusalem, Sh'altiêl for Salathiel, Shôm'rôn for Samaria, Shimshôn for Samson, Sh'muêl for Samuel, Shâûl for Saul, Shêth for Seth, Shim'ôn for Simon, Sh'lômôh for Solomon, Abhshâlôm for Absalom, Yeshai for Jesse, Y'shayâhû for Isaiah, M'nassheh for Manasseh, Yêshû'a for Jesus, Shôshannah for Susannah, and Mâshîach for Messiah? The Jews also are sinners against the rule set up in the Bible Dictionary, for they very usually write Shim'ôn in the Talmud with a *Samekh* instead of a *Shin*, as for instance in the Talmud of Jerusalem, Shab. 11 : 2, and Berach, 8 : 1. The very sufficient answer against the enforcement of the implied recommendation of Smith's Bible Dictionary seems to me to be that many of these names have become part and parcel of our speech, and are woven into the woof of our historical and domestic life. *Sem* stands in the same category, for we find it where we have found the other names, namely in the English Bible, e. g. in Luke 3 : 36. To the allegation that there is "no reason" for the adoption of Semitic, I answer again briefly that Semitic appears to me the better term because of the very possibility of its failing to suggest to an English mind the more usual form of the name Shem. *Japhetic* is about obsolete, *Hamitic* is obsolescent, and *Shemitic*, founded on error and guarded by prejudice and obstinacy, should follow in the same road. It is possible for Semitic to attain a conventional wide significance, similar to that we attribute to Aryan and Turanian; Shemitic, on the contrary, carries with it the history of a misconception, from which it cannot easily be divorced.

III. The writer of the article "Shemitic Languages" in Smith's Bible Dictionary affirms that we received Semitic from the French, and Professor Murray coincides with this statement. No evidence, no reference to any historical document, is cited by either authority. But it is not a necessary conclusion, at all, that we borrowed the term from the French. There were other persons in England besides Coleridge, in the beginning of this century, who, like him, were more or less devoted both to Semitic and to German literature, and who may have seen the word and used it at its earliest invention. Coleridge was twenty-eight years of age in the year 1800, when Eichhorn's *Bibliothek* had been six years before the public, and it is not unlikely that he had used the word as early as De Sacy used it. At any rate, that the word Semitic was known to him as early as Feb. 24, 1827, is matter of history, for it occurs in his "Table-talk" of that date. The statement of Smith's Bible Dictionary, therefore, that it has been "lately adopted" from the French, must be modified in so far that the word "lately" may mean fifty years.

IV. The Dictionary further affirms that the French find the pronunciation of our *sh* difficult. We should hardly expect to find anything "sensational" in a Bible Dictionary, but this statement is certainly very remarkable. How a Frenchman would allow himself to be convulsed with such impossible phonetic combinations when he would speak of his *chapeau*, or of his *cheval* which draws his *chaise* along his *chemin*, is only to be explained by the fact that a Frenchman is to an Englishman past finding out. The Abbé Chiarini, who spells the letter *Shin*, C-h-i-n, in p. 64 of his *Prolégomènes à la version du Talmud*, would doubtless have raised in the writer in Smith's Bible Dictionary the notion that the design in this odd orthography was to speak of a part of the human countenance.

In conclusion let me note that Professor Murray observes that Semitic is in "almost" good usage. But the Encyclopedia Britannica, the Penny Encyclopedia, the American, and the New American Encyclopedias, and indeed all the large encyclopedias excepting the Edinburgh one; the professors of Oxford and Cambridge, notably Professors Max Müller and Palmer; and indeed all the great scholars and writers of Great Britain, excepting a few like Davidson of obstinate Scotland, including the writers of such good English as Gladstone, Ruskin, Beaconsfield, and Fitz-Edward Hall, uniformly and exclusively use Semitic. In this country the usage of such scholars as Robinson, in his Travels and in his translation of Gesenius's Hebrew Lexicon, of Green, in his Hebrew Grammar, of the late Professor Hadley in his Essays, of Whitney and March in their respective Sanskrit and Anglo-Saxon grammars, and of Professor Murray's editor and annotator, make the practice more than respectable. In view of all that has been here urged, it may not improperly be said that the term Semitic is authoritative.

18. The Reading and Interpretation of Verse 572 of the Antigone of Sophocles, by Professor M. L. D'Ooge, Michigan University, Ann Arbor, Mich.

Aldus first assigned this line to Antigone, a view since advocated by Boeckh and adopted by the majority of editors. That Boeckh was unduly influenced by the supposed incongruity of the address ὦ φίλταθ' Αἵμων in the mouth of Ismene, is now generally acknowledged. The two principal reasons for giving

the line to Antigone are: (1) If the line is assigned to Ismene, τὸ σὸν λέχος of
the next line must mean 'the marriage of which you speak,' which, although
admissible so far as use of words is concerned, has no application to what
Ismene has just said. (2) As the line stands, it is not what would be expected
from Ismene in response to the reproachful observation of Creon, κακὰς ἐγὼ
γυναῖκας υἱέσιν στυγῶ. Antigone, and not Haemon, is dishonored (ἀτιμάζει) by
this reproach, against which Ismene would be likely to defend her sister.

But these considerations, it must be noticed, are objections against assigning
the line to Ismene rather than arguments for giving it to Antigone. To suppose
the line spoken by Antigone involves, as it seems to me, much graver objections.
For, in the first place, we are then to hold that Antigone, who before this had
made not the slightest allusion to her relations with Haemon, now so far loses
sight of her absorbing devotion to her duty towards her brother, as to resent the
imputation that she would be a bad wife for Creon's son. To be sure, Boeckh
sees in this ejaculation a kind of magnanimity on the part of Antigone in that she
notices the indirect taunt hurled at Haemon rather than the direct one aimed at
herself; still, she is moved to break her dignified silence none the less by a re-
proach cast upon her λέχος. The unnaturalness of this is the more apparent
when we take into account Antigone's utterance in 560. But again, to suppose
this line spoken by Antigone makes the next line spoken by Creon exceedingly
tame. It is hardly in keeping with the proud and indignant temper of Creon to
take so little notice of this exclamation (to pay no attention to it at all would suit
the situation), if it had fallen from the lips of Antigone. But to settle the inter-
pretation of a line by simply weighing objections over against each other, is at
best only a choice of evils. Whether the line be assigned to Antigone or to
Ismene, it must be confessed that its connection with the context is not readily
apparent. To make the connection of this line and of 569 more clear, Nauck
proposes to bracket 570 and to transpose 571 and 572, so as to have this order :
569, 572, 571. According to his interpretation of 572, which he assigns to
Ismene, Creon dishonors Haemon by intimating that he will comfort himself for
the loss of his bride by finding another in her stead. While thus a better con-
nection for 572 is gained, it is at the expense of the clearness of the relation of
571 to the context. Moritz Schmidt, in his recent edition, proposes more radical
transpositions, which a sound criticism will be slow to accept. The only point
of interest in his emendation is the connection he makes between 567 and 572,
which he explains by supposing that ἀτιμάζει refers to Creon's disposal of Anti-
gone without consulting his son who, having reached his majority, ought to have
some voice in the matter. Not to speak of the *modernness* of this view, its finesse
is out of harmony with the simplicity and directness of Ismene's character.

To remove the objections urged above against assigning 572 to Ismene, and to
make apparent the connection of this line with the next following, I venture to
propose a much simpler remedy, to wit, a change of σ' to σφ' in 572. The line
would then read: 'O, dearest Haemon, how your father dishonors *her*' (i. e.
Antigone), by calling her κακὴ γύνη for you his son. The omission of the article
or pronoun with πατήρ is no objection, and the use of σφέ in Tragedy, when no
deictic force is intended, is common enough. The disappearance of the φ from
σφ' is quite similar to the omission of δ' in O. C. 1363, ἐκ σέθεν δ' ἀλώμενος, or
of θ' in O. C. 1012, ξυμμάχους θ' ἵν' ἐκμάθῃς.

With this reading we first get a clear view of what is referred to by ἀτιμάζει,

and a fair connection for the next following line. Now Creon says, with manifest allusion to the exclamation of Ismene: Stop, you and this marriage to which you have been referring (just now and in 568 and 570) are provoking me beyond endurance. For this reference of τὸ σὸν λέχος we have proof in the scholium on this line: τὸ σὸν, τὸ ὑπὸ σοῦ ὀνομαζόμενον· οἷον, τὸ ὄνομα τῆς νύμφης ὃ σὺ προβάλλῃ.

From this scholium the proposed emendation receives inferential evidence; for, while the name of the bride is not mentioned in this connection, the proposed σφέ adds to the clearness of the reference.

19. A Confession about Othello, by Professor March.

The scenes in which Iago moves Othello to jealousy seem to me unnatural. I hav tried since my boyhood to make them seem natural, but I hav not succeeded, — that is my confession.

If we compare the jelousy of Leontes we find it natural though utterly groundless. It springs from temperament and mood in Leontes. But in Othello the attempt is made to show us a man, not jelous in himself, convinced by testimony and reasons that he has cause for jelousy.

His own view of his wife presents her to him in perfect purity. We ar to believ him overpowerd by reasons. There is great elaboration of the steps of Iago's procedure to convince him. We ar led therefore to scrutinize them, and we must see they amount to nothing. How could any man like Othello be moved by such tricks and trifles? It is possibl, to be sure, that a man should hav such perfect confidence in another as to accept his views without good reasons. If we ar to recognize such a friendship between Othello and Iago, grounds for it should be shown in the character of Iago in the earlier part of the play. But he is exhibited as a rascal, and a gross one, from the first. It is hard to think of such shallow rascality, so obtrusively set forth at every turn, as deceiving any one. Was there some actor of Shakespeare's time who had a natural expression of superhuman trustworthiness, some unimaginabl "confidence man," looking on whom the theater coud believ that any Othello must trust him in everything? Or has Shakespeare for once lowerd his genius to giv the actors an opportunity to show off their power of depicting changes of mood and passion too artificial for nature?

On motion of Professor Toy, it was

Resolved, That the following minute be put on the Records, and be sent to the gentlemen here mentioned:

The American Philological Association desires to express its hearty thanks to the Board of Education of Cleveland for the use of their Assembly Room, to the representatives of the Cleveland *Leader* and of the Cleveland *Herald* for their careful reports of the proceedings, to the officers of the Union Club for the generously offered privileges of their Club House, and to Mr. Charles W. Bingham, Mr. W. S. Kerruish, Dr. H. H. Powell, and especially to Mr. E. P. Williams, for their kindness in making the needed arrangements for the meeting, and for the pleasant ride and collation provided by them.

The minutes of Thursday's sessions were read and approved.
On motion, the Association then adjourned.

CHARLES J. BUCKINGHAM, *Treasurer, in account with the* AMERICAN PHILOLOGICAL ASSOCIATION,

July 13, 1880 — *July* 12, 1881.

Dr.		Cr.	
Balance in Treasury, July 12, 1880, ...	$414.05	Printing "Transactions" and "Proceedings," . .	$529.10
Fees and Assessments since received, ...	543.58	Expenses of session in Philadelphia, ...	16.86
Sales of "Transactions,"	35.00	" " Assistant Secretary, . . .	36.15
Interest, ...	24.00	" " Secretary, ...	2.46
		" " Treasurer, ...	8.60
		Printing Bills and Receipts, ...	5.00
		Balance in Treasury to new account, . . .	418.46
	$1,016.63		$1,016.63

E. E.   CHARLES J. BUCKINGHAM, *Treasurer.*

There is also in the hands of the Treasurer one Bond of the Connecticut Western Railroad for Five Hundred Dollars, with nine overdue and unpaid coupons.

C. J. B.

Having examined the above accounts, and compared them with the vouchers, we certify them to be correct.

(Signed)   F. A. MARCH,   } *Auditing Committee.*
            T. D. SEYMOUR, }

CLEVELAND, OHIO, July 12, 1881.

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1881–82.

PRESIDENT.

FREDERIC D. ALLEN.

VICE-PRESIDENTS.

MILTON W. HUMPHREYS,
MARTIN L. D'OOGE.

SECRETARY AND CURATOR.

CHARLES R. LANMAN.

TREASURER.

CHARLES J. BUCKINGHAM.

EXECUTIVE COMMITTEE.

The officers above named, and —

BASIL L. GILDERSLEEVE,
WILLIAM W. GOODWIN,
THOMAS R. PRICE,
J. HAMMOND TRUMBULL,
WILLIAM D. WHITNEY.

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Joseph Anderson, Waterbury, Conn.
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H. C. G. Brandt, Johns Hopkins University, Baltimore, Md.
Fisk P. Brewer, Iowa College, Grinnell, Iowa.
John A. Broadus, Southern Baptist Theol. Seminary, Louisville, Ky.
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OF THE

AMERICAN PHILOLOGICAL ASSOCIATION.

ARTICLE I. — NAME AND OBJECT.

1. This Society shall be known as "The American Philological Association."

2. Its object shall be the advancement and diffusion of philological knowledge.

ARTICLE II. — OFFICERS.

1. The officers shall be a President, two Vice-Presidents, a Secretary and Curator, and a Treasurer.

2. There shall be an Executive Committee of ten, composed of the above officers and five other members of the Association.

3. All the above officers shall be elected at the last session of each annual meeting.

ARTICLE III. — MEETINGS.

1. There shall be an annual meeting of the Association in the city of New York, or at such other place as at a preceding annual meeting shall be determined upon.

2. At the annual meeting, the Executive Committee shall present an annual report of the progress of the Association.

3. The general arrangements of the proceedings of the annual meeting shall be directed by the Executive Committee.

4. Special meetings may be held at the call of the Executive Committee, when and where they may decide.

ARTICLE IV. — MEMBERS.

1. Any lover of philological studies may become a member of the Association by a vote of the Executive Committee and the payment of five dollars as initiation fee, which initiation fee shall be considered the first regular annual fee.

2. There shall be an annual fee of five dollars from each member, failure in payment of which for two years shall *ipso facto* cause the membership to cease.

3. Any person may become a life member of the Association by the payment of fifty dollars to its treasury, and by vote of the Executive Committee.

ARTICLE V. — SUNDRIES.

1. All papers intended to be read before the Association must be submitted to the Executive Committee before reading, and their decision regarding such papers shall be final.

2. Publications of the Association, of whatever kind, shall be made only under the authorization of the Executive Committee.

ARTICLE VI. — AMENDMENTS.

Amendments to this Constitution may be made by a vote of two thirds of those present at any regular meeting subsequent to that in which they have been proposed.

PUBLICATIONS OF THE ASSOCIATION.

THE annually published "Proceedings" of the American Philological Association contain an account of the doings at the annual meeting, brief abstracts of the papers read, reports upon the progress of the Association, and lists of its officers and members.

The annually published "Transactions" give the full text of such articles as the Executive Committee decide to publish. The Proceedings are bound with them as an Appendix.

The following tables show the authors and contents of the first twelve volumes of Transactions :

1869-1870. — Volume I.

Hadley, J.: On the nature and theory of the Greek accent.
Whitney, W. D.: On the nature and designation of the accent in Sanskrit.
Goodwin, W. W.: On the aorist subjunctive and future indicative with ὅπως and οὐ μή.
Trumbull, J. Hammond: On the best method of studying the North American languages.
Haldeman, S. S.: On the German vernacular of Pennsylvania.
Whitney, W. D.: On the present condition of the question as to the origin of language.
Lounsbury, T. R.: On certain forms of the English verb which were used in the sixteenth and seventeenth centuries.
Trumbull, J. Hammond: On some mistaken notions of Algonkin grammar, and on mistranslations of words from Eliot's Bible, etc.
VanName, A.: Contributions to Creole grammar.
Proceedings of the preliminary meeting (New York, 1868), of the first annual session (Poughkeepsie, 1869), and of the second annual session (Rochester, 1870).

1871. — Volume II.

Evans, E. W.: Studies in Cymric philology.
Allen, F. D.: On the so-called Attic second declension.
Whitney, W. D.: Strictures on the views of August Schleicher respecting the nature of language and kindred subjects.
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Bristed, C. A.: Some notes on Ellis's Early English Pronunciation.

Trumbull, J. Hammond : On Algonkin names for man.
Greenough, J. B. : On some forms of conditional sentences in Latin, Greek, and Sanskrit.
Proceedings of the third annual session, New Haven, 1871.

1872. — Volume III.

Evans, E. W. : Studies in Cymric philology.
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March, F. A. : On some irregular verbs in Anglo-Saxon.
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Proceedings of the fourth annual session, Providence, 1872.

1873. — Volume IV.

Allen, F. D. : The Epic forms of verbs in *άω*.
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Lull, E. P. : Vocabulary of the language of the Indians of San Blas and Caledonia Bay, Darien.

Proceedings of the fifth annual session, Easton, 1873.

1874. — Volume V.

Tyler, W. S. : On the prepositions in the Homeric poems.
Harkness, A. : On the formation of the tenses for completed action in the Latin finite verb.
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Packard, L. R. : On a passage in Homer's Odyssey (x. 81–86).
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Whitney, W. D.: Φύσει or θέσει — natural or conventional ?

Proceedings of the sixth annual session, Hartford, 1874.

1875. — Volume VI.

Harkness, A.: On the formation of the tenses for completed action in the Latin finite verb.

Haldeman, S. S.: On an English consonant-mutation, present in *proof, prove.*

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Proceedings of the seventh annual session, Newport, 1875.

1876. — Volume VII.

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Trumbull, J. Hammond: On the Algonkin verb.

Haldeman, S. S.: On a supposed mutation between *l* and *u.*

Proceedings of the eighth annual session, New York, 1876.

1877. — Volume VIII.

Packard, L. R.: Notes on certain passages in the Phaedo and the Gorgias of Plato.

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Proceedings of the ninth annual session, Baltimore, 1877.

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Gildersleeve, B. L. : Contributions to the history of the articular infinitive.
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Proceedings of the tenth annual session, Saratoga, 1878.

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Toy, C. H. : Modal development of the Semitic verb.
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Proceedings of the eleventh annual session, Newport, 1879.

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Proceedings of the twelfth annual session, Philadelphia, 1880.

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