



Bodleian Libraries

UNIVERSITY OF OXFORD

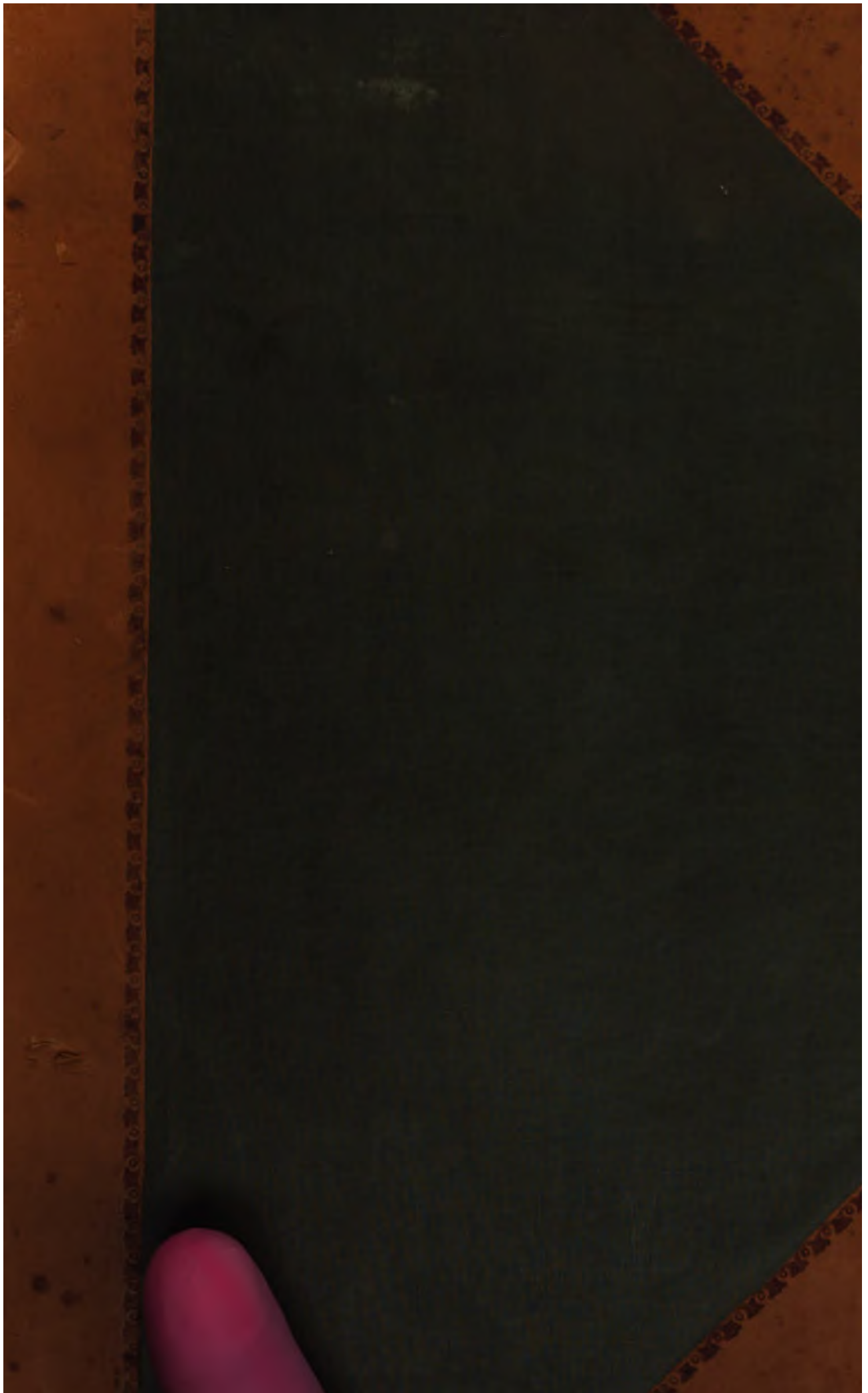
This book is part of the collection held by the Bodleian Libraries and scanned by Google, Inc. for the Google Books Library Project.

For more information see:

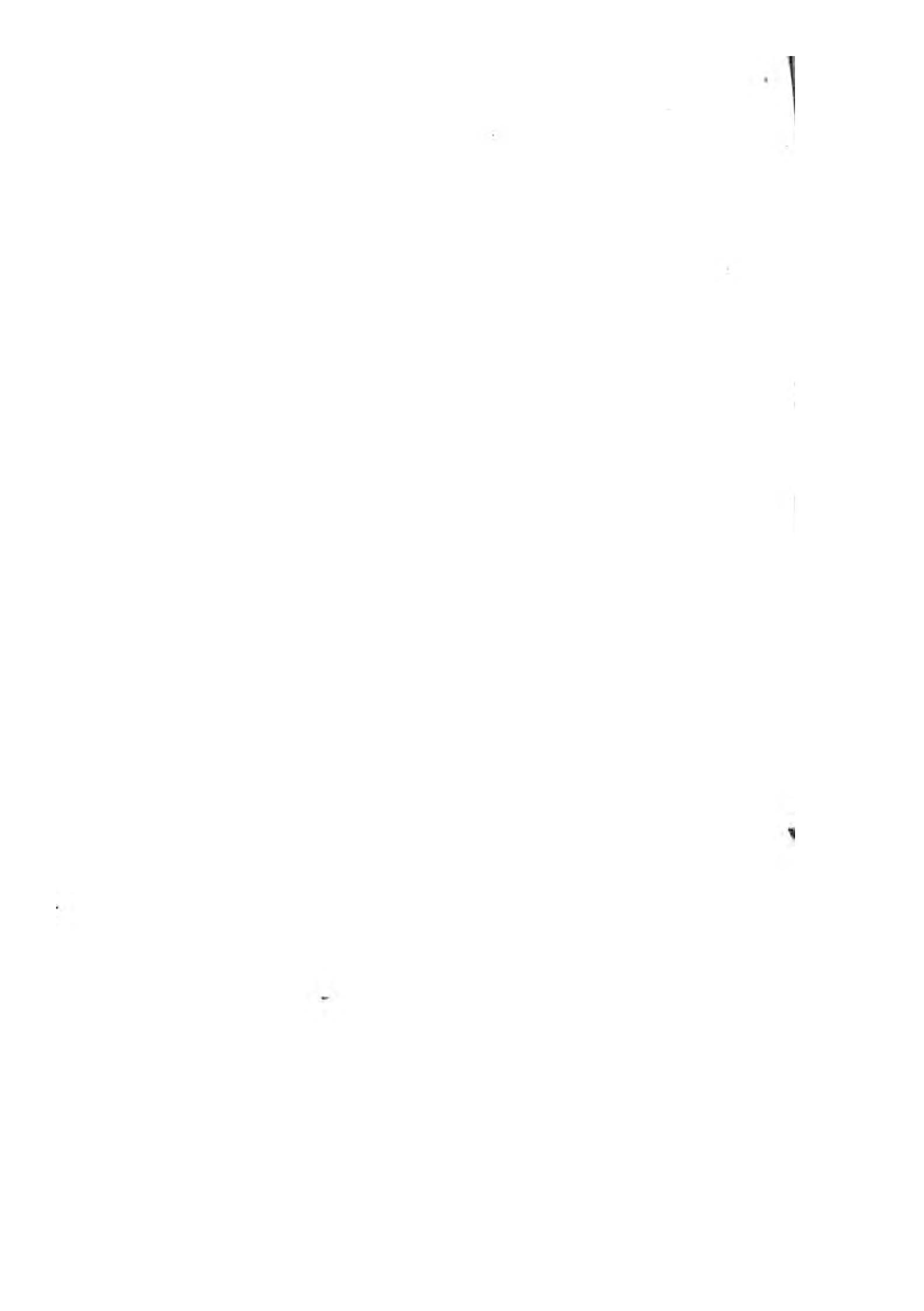
<http://www.bodleian.ox.ac.uk/dbooks>



This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 2.0 UK: England & Wales (CC BY-NC-SA 2.0) licence.



Per. 1512 e. $\frac{503}{2}$



THE
MEDICAL
QUARTERLY REVIEW.

VOL. II.



LONDON:

J. SOUTER, 73, ST. PAUL'S CHURCH-YARD;

SOLD ALSO BY BURGESS AND HILL; J. CHURCHILL; E. COX; J. HIGHLEY;
RENSHAW AND RUSH, &c.

W. JACKSON, NEW YORK, AGENT FOR THE UNITED STATES.

1834.

**J. AND C. ADLARD, PRINTERS,
BARTHOLOMEW CLOSE.**

CONTENTS
OF THE
MEDICAL QUARTERLY REVIEW,

No. III. APRIL 1, 1834.

REVIEWS.

I.	
Lectures on the Morbid Anatomy, Nature, and Treatment of Acute and Chronic Diseases, delivered in the Theatre of Anatomy, Webb street, by the late JOHN ARMSTRONG, M.D. Edited by JOSEPH RIX . . .	1
II.	
Erfahrungen über die Erkenntniss, und Heilung der langwierigen Schwerhörigkeit. Von Dr. W. KRAMER	17
III.	
On the Reflex Function of the Medulla Oblongata and Medulla Spinalis. By MARSHALL HALL, M.D., F.R.S. L. & E., &c.	25
IV.	
Elements of Materia Medica and Therapeutics; including the recent Discoveries and Analyses of Medicines. Vol. II. By ANTHONY TODD THOMSON, M.D.	39
V.	
Alphabet of Medical Botany, for the Use of Beginners. By J. RENNIE, M.A. &c.	50
Alphabet of Botany, for the Use of Beginners. By J. RENNIE, M.A. &c.	ib.
VI.	
An Investigation into the remarkable Medicinal Effects resulting from the External Application of Veratria. By ALEXANDER TURNBULL, M.D.	55
VII.	
The Medical Works of PAULUS ÆGINETA, the Greek Physician, translated into English; with a copious Commentary, containing a comprehensive View of the Knowledge possessed by the Greeks, Romans, and Arabians, on all Subjects connected with Medicine and Surgery. By FRANCIS ADAMS, Esq.	60
VIII.	
The Cyclopædia of Practical Medicine. Edited by JOHN FORBES, M.D., ALEXANDER TWEEDIE, M.D., and JOHN CONOLLY, M.D.	
Dr. CARSWELL on the Softening of Organs	78
Dr. PRICHARD on Somnambulism and Animal Magnetism	ib.
Dr. BISSET HAWKINS on Medical Statistics	81
Dr. WILLIAMS on the Stethoscope	ib.
Dr. A. T. THOMSON on Stimulants	82

Reviews continued.

IX.	
Die Geburtshülffliche Exploration. Von Dr. ANTON FRIEDRICH HOHL	83
X.	
A Treatise on Diseases and Injuries of the Nerves. By JOSEPH SWAN, Esq. A new Edition, very considerably enlarged	90
XI.	
The Croonian Lectures, delivered at the Royal College of Physicians, in 1833, on Cholera. By GEORGE LEITH ROUPELL, M.D.	97
XII.	
A Treatise on the Diseases of Newly-born Infants, and of their Diseases during Lactation. By C. M. BILLARD, D.M. Second Edition, enlarged by a Medico-legal Memoir on the Vitality of the Fœtus, with Notes, and a Notice of the Life and Works of the Author, by M. OLLIVIER (D'ANGERS)	111
XIII.	
On the Influence of Minute Doses of Mercury, combined with the appropriate Treatment of various Diseases, in restoring the Functions of Health; and the Principles on which it depends. By A. P. W. PHILIP, M.D., F.R.S.L. & E., &c.	121
XIV.	
Cases illustrating and confirming the Remedial Power of Inhalation of Iodine and Conium in Tubercular Phthisis, and various disordered States of the Lungs and Air-Passages. By Sir C. SCUDAMORE, M.D.	127
XV.	
Illustrations of the Elementary Forms of Disease. By ROBT. CARSWELL, M.D. Fasciculi I.—IV.	131
XVI.	
A Demonstration of the Nerves of the Human Body; consisting of four Parts. By JOSEPH SWAN. Part IV.	134
XVII.	
Report of the Experiments on Animal Magnetism, &c. Translated, with an Historical and Explanatory Introduction, and an Appendix, by J. C. COLQUHOUN, Esq.	135
XVIII.	
Observations on the Ulcerative Process, and its Treatment, particularly when affecting the Leg. By WM. ECCLES, Surgeon	137
XIX.	
An Examination into the Causes of the declining Reputation of the Medical Faculty of the University of Edinburgh, &c.	139
XX.	
Medical Bibliography. A. & B. By JAMES ATKINSON, Surgeon	141
XXI.	
Observations on the Preservation of Sight, and on the Use, Abuse, and Choice of Spectacles, &c. By JOHN HARRISON CURTIS, Esq.	144

Reviews continued.

- XXII.
The Anatomy and Surgery of Inguinal and Femoral Hernia. By E.
W. TUSON, F.L.S. 145
- XXIII.
A Series of Anatomical Plates in Lithography, with References and
Physiological Comments, illustrating the Structure of the different
Parts of the Human Body. Edited by JONES QUAIN, M.D. . 146
- XXIV.
Some Observations on the Utility of Fumigating and other Baths, &c.
By JONATHAN GREEN, M.R.C.S. ib.
- XXV.
On Dentition, and some coincident Disorders. By J. ASHBURNER, M.D. 147
- XXVI.
An Introduction to the Study of Human Anatomy. By JAMES PAXTON, Esq. 148
- XXVII.
The Journal of Botany. By WM. JACKSON HOOKER, Esq. . 149
- XXVIII.
An Essay on the Physiology of the Iris. By JOHN WALKER, Esq. 150
- XXIX.
The Parents' Dental Guide, &c. By WM. IMBIE, Esq. . ib.
- XXX.
An Introduction to the Study and Practice of Medicine. By JOHN
DOWSON, Esq. 151

Original Communications.

- I.
On the Classification, Administration, Modus Operandi, and Combina-
tion of Medicines. By J. STEVENSON BUSHNAN, F.L.S. . 152
- II.
Account of a Case of Pulmonary Consumption, in which nearly the whole
of the Right Lung was converted into an immense Vomica, attended
with universal Adhesion, and partial Absorption of the Pleural Sac.
Communicated to the Harveian Society, by WILLIAM STROUD, M.D. 170
- III.
Cases extracted from the Obstetric Note-book of the Welbeck-street
Dispensary, by permission of HENRY DAVIES, M.D. . 179
- IV.
On the Use of Colchicum in Erysipelas. By JOHN BULLOCK, Esq. 183

COLLECTANEA.**PATHOLOGY AND PRACTICE.**

On the Application of the Tourniquet in Paralysis	188
Case in which the Os Uteri was nearly Obliterated	189
Case of Hypochondriasis	ib.
Hypochondriasis in Medical Pupils	190
Paralysis of one Side of the Face	ib.
Empyema cured by an Operation. By J. PANCOAST, M.D.	191
Chorea Sancti Viti	196
Lithotomy in Italy	ib.
Cases of Diseased Nerves	200
Cases of Dilatation of the Stomach	201
Case of Constipation, successfully treated by the Introduction of Air into the Bowels. By GEORGE J. JANEWAY, M.D.	203
Treatment of Dropsy	204
On the Crowing Inspiration of Children	205
Therapeutic Effects of Codeine	206

MISCELLANEOUS.

Letter from Mr. MACILWAIN	207
Regulation of Madhouses	208
Great Oaks	211
On the Apparent Direction of Eyes in a Portrait	212
The Weeping Willow	213
On the Structure of the Covering of the Cornea	215
Test for Hydrocyanic or Prussic Acid, and Method of Appreciating the Quantity	216
Spark produced during the Freezing of Water by Æther	217
Horse Shoes	218
A Surgical Anecdote	ib.
On Sounds Inaudible by certain Ears	220
The Taxodium	221
On the Organs of the Voice in Birds	ib.
The Hippomanæ	226
Case of Ulceration of the Eyelid	227
Homœopathy	228
Piscidia Erythrina, or the Fish-wood	230
Reduction of Strangulated Hernia	231
Fœtus of the Whale	ib.

Medical Politics and Intelligence.

Medical Reform	232
College of Physicians	234
Oxford Medical Degrees	ib.
Statutes of the University of Edinburgh, relative to the Degree of M.D. 1833	238
List of Questions to be answered by the Governors of Hospitals, &c.	240
British Association for the Advancement of Science	ib.
Meteorological Register. Notices, &c.	ib.

Advertising Sheet—(see End of the Number.)

CONTENTS
OF THE
MEDICAL QUARTERLY REVIEW,

No. IV. JULY 1, 1834.

REVIEWS.

I.	
Pathological and Surgical Observations on the Diseases of the Joints. By B. C. BRODIE, V.P.R.S., Serjeant Surgeon to the King, and Surgeon to St. George's Hospital. Third Edition	241
II.	
Chemistry, Meteorology, and the Function of Digestion, considered with reference to Natural Theology. By WILLIAM PROUT, M.D., F.R.S.,	267
III.	
Cours Théorique et Pratique d'Accouchemens. Par J. CAPURON, M.D.	273
IV.	
The Edinburgh Medical and Surgical Journal	280
Dr. TURNBULL's Med.-Chirurg. Report of the Huddersfield Infirmary	ib.
Mr. POOLE's Account of an Epidemic Gastric Fever	381
Dr. CHURCHILL's Report of Diseases of Lying-in Women, &c.	ib.
Dr. HENRY on Sulphate of Magnesia	282
Dr. SMITH on Insanity	264
Dr. CRAIGIE's Clinical Report	ib.
Dr. SPITTAL on Diseases of the Heart	285
Dr. MALCOLM on Spontaneous Evolution of Fœtus	286
Dr. MURRAY on the Tests for Arsenic	287
Mr. ROBERTON on the Relaxation, &c. of the Uterus and Bladder in the Puerperal State	ib.
V.	
The Anatomy and Physiology of the Liver. By FRANCIS KIERNAN, Esq.	286
VI.	
On the Ulcerative Process in Joints. By C. ASTON KEY, Esq.	256
A Practical Treatise on Diseases of the Joints. By W. J. WICKHAM, Esq.	ib.
VII.	
The Principles and Practice of Obstetrics, as at present taught by JAMES BLUNDELL, M.D.	308
VIII.	
Der Alp, sein Wesen und seine Heilung. Eine Monographie, von MORITZ STRAHL, Dr. der Medizin, &c.	315

Reviews continued.

IX.

- Consumption Curable; and the Manner in which Nature as well as Remedial Art operates in effecting a Healing Process in Cases of Consumption, &c. By FRANCIS HOPKINS RAMADGE, M.D. . 320

X.

- The Principles of Diagnosis. By MARSHALL HALL, M.D. . 325

XI.

- Abhandlungen aus dem Gebiete der Practischen Medicin und Chirurgie. Von Dr. ADOLPH. LEOP. RICHTER, &c. . 331

XII.

- The Anatomy of the Human Eye. By JOHN DALRYMPLE, Esq. . 340

XIII.

- Leçons de Clinique Médicale, faites a l'Hôtel Dieu de Paris, par le Professeur A. F. CHOMEL; recueillies et publiées sous ses yeux, par J. L. GENEST, D.M.P. . 343

XIV.

- The Transactions of the Provincial Medical and Surgical Association . 351
 Dr. BARDSLEY on the Efficacy of Strychnine in some Forms of Paralysis *ib.*
 Mr. THOMPSON on Chronic Peritonitis . 357
 Mr. DAWSON'S Case of Lithotomy by the Rectum . *ib.*
 Mr. GRINDROD'S Case of Hydrophobia . 360
 Mr. PRITCHARD'S Tuberculous Affection of the Kidney . 361
 Mr. W. F. MORGAN on Dislocation of the Shoulder . 363
 Dr. J. K. WALKER on the Diseases of Children . 364
 Mr. E. A. JENNINGS on the Hydrostatic Test . 365

XV.

- Principles and Illustrations of Morbid Anatomy; adapted to the Elements of M. ANDRAL, and to the Cyclopædia of Practical Medicine, &c. By J. HOPE, M.D., F.R.S. . 367

XVI.

- An Inquiry into the Principles and Practice of Medicine, founded on original Physiological Investigations. By G. CALVERT HOLLAND, M.D., &c. 370

XVII.

- A New Synopsis of Nosology, founded on the Principles of Pathological Anatomy, and of the Natural Affinities of Diseases. By G. HUME WEATHERHEAD, M.D. . 383

XVIII.

- Hortus Medicus, or Figures and Descriptions of the more important Plants used in Medicine, or possessed of Poisonous Qualities; with their Medical Properties, Chemical Analysis, &c. &c. By GEORGE GRAVES, F.L.S. &c. 385

XIX.

- The Principles of Physiology applied to the Preservation of Health, and to the Improvement of Physical and Mental Education. By ANDREW COMBE, M.D. . 388

Reviews continued.

XX.	
The Gardener's Dictionary, &c. By PHILIP MILLER, F.R.S. &c.	. 390
XXI.	
Observations on the present System of Medical Education, with a View to Medical Reform. By A LICENTIATE OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.	. 391
XXII.	
The Magazine of Botany and Gardening, British and Foreign. Edited by JAMES RENNIE, M.A.	. 394
XXIII.	
Vindiciæ Medicæ; or, a Defence of the College of Physicians	. ib.
XXIV.	
Medica Sacra; or, Short Expositions of the most important Diseases mentioned in the Sacred Writings. By THOMAS SHAPTER, M.D.	. 396
XXV.	
Illustrations of the Elementary Forms of Disease. By R. CARSWELL, M.D.	397
XXVI.	
The Cyclopædia of Practical Surgery. By WILLIAM BLOXAM, Esq., M.R.C.S. Revised by CHARLES MILLARD, Esq., M.R. .s.	. 398
XXVII.	
The Anatomy and Operative Surgery of Inguinal and Femoral Hernia. By VALENTINE FLOOD, A.M. M.D., &c.	. ib.
XXVIII.	
Pharmacopœia Homœopathica. Edidit T. F. QUIN, M.D.	. 399
XXIX.	
The Signs, Disorders, and Management of Pregnancy; the Treatment to be adopted during and after Confinement; and the Management and Disorders of Children. Written expressly for the Use of Females. By DOUGLAS FOX, F.R.C.S.	. 401

Original Communications.

Cases extracted from the Note-book of HENRY DAVIES, M.D., Physician to the British Lying-in Hospital, &c.	. 402
On the Sense of Equilibrium, and on its Disturbance. By H. MAYO, F.R.S.	405
Comparison of the Circular and Flap Operations in amputating the Thigh. By HERBERT MAYO, F.R.S.	. 411
Observations on Catarrhal and Catarrho-rheumatic Ophthalmia. By FREDERICK TYRRELL, Esq.	. 416
Observations on the Treatment of Bronchocele. By JAMES REID, Esq.	425
A Case, in which a Collection of Fluid and Coagulable Matter, to the amount of several Pints, took place between the Membranes of the Brain	446
Case of Strangulated Hernia, with Adhesions to the Sac. By JOHN VALENTINE, M.R.C.S.	. 448
MR. MAYO ON SIR CHARLES BELL'S Discoveries	. 451

COLLECTANEA.**PATHOLOGY AND PRACTICE.**

On the Circular and Flap Operations	452
Condylomata cured by Creosote	453
In what Dose should Digitalis be given ?	454
Rupture of a Varicose Tumour in the Vagina during Labour	455
Sneezing	456
Case of Disease of the Sympathetic Nerve	457
Treatment of the Venereal Disease in the Hospital of the 72d Regiment, at the Cape of Good Hope	459
Deep-seated Abscess of the Thigh	ib.
On the Death of New-born Infants depending on Anormal States of the Umbilical Cord. By Dr. KOHLSCHWETTER	462
Efficacy of the Extract of Belladonna in Strangulated Hernia	465
On the Division of the Tendo Achillis as a Means of curing Club-foot	466
Conversion of the Right Lung into an Encephaloid Structure	468
Chronic Disorders of the Heart	471
Pathology of the Fœtus	473
Phlegmasia Dolens in Men	475
Hypertrophy of the Mammæ	477
Triple Quotidian Ague	479

MISCELLANEOUS.

King James's Counterblaste to Tobacco	ib.
State of Drugs in London	481
Mr. Richmond's Musical Performance	483
Theory of Animal Magnetism	484
State Medicine in Germany	486
John Hunter.—Symptoms of Pain in the Horse	489
Small Hospitals.—Pure Tannin	490
On the Action of Chlorine on Metallic Iodides	491

Medical Politics and Intelligence.

What can the Legislature do for us ?	492
Self-supporting Dispensaries	494
Meteorological Register. Notices	496

Advertising Sheet—(see End of the Number.)

THE
MEDICAL
QUARTERLY REVIEW.

REVIEWS.

Lectures on the Morbid Anatomy, Nature, and Treatment of Acute and Chronic Diseases; delivered in the Theatre of Anatomy, Webb-street, by the late JOHN ARMSTRONG, M.D. &c. Edited by JOSEPH RIX, M.R.C.S.—London, 1834. 8vo. pp. 851.

AMONG the posts of honour which our profession offers to quicken the diligence of its most ardent votaries, there is no one which can vie in brilliancy with that of a popular lecturer. The applause which to others is doled out in scanty fragments, for whose complement they must appeal to the uncertain judgment of posterity, is meted out to him with an unsparing hand; and, even if he does not altogether escape unscathed by contemporaneous censure, he has but to enter his class-room "to read his glories in his pupils' eyes," and to hear the verdict of envy triumphantly cancelled by a boundless majority.

"Tunc dolor, et curæ, rugaque frontis abit."

In fact, the fame of which other men see but the reflected light through the long vistas of time and distance, is enjoyed by him face to face; so that for him the extravagant wish of the lovers in the old tragedy, that, for their sake, time and space might be annihilated, is almost literally fulfilled. This reward is great, but it is the reward of genius alone. He who hesitates in speech or in thought,—who reads his lectures, or compiles them,—who is too facile to have an opinion, or too obstinate to change one,—he who lacks the animation which brightens the features and enriches the voice of the discoverer and inventor, may be a trustworthy practitioner, but can never be a first-rate lecturer. The sparkling eye, the ever-varying tones, the pointed story addressed to the many, the sly allusion to the few, the original phraseology, the swelling period, the generous burst of enthusiasm,

—these constitute not the ornaments, but the very essence, of a course of lectures; without them, it becomes a mere book, with the unpleasing difference, that the price is measured by guineas instead of shillings.

The very pleasure with which we listen to the genuine lecturer arises in part from the instinctive consciousness that what we hear can never be read, since the most faithful report will be but a lifeless cast from the energies unfolded before us, and will indeed display but a very small part of them. No reasonable person, therefore, professes to be disappointed when he finds that a book can give, as the phrase goes, merely "the substance of lectures," and that the gorgeous colouring with which genius delights to invest its creations is gone for ever. In the present instance, however, the substance is so excellent, that we congratulate all our readers on the appearance of the volume before us: to the student it will be invaluable, and we know no one so advanced that he may not derive profit from the instructions of that master in the art, Dr. Armstrong. The chief merits of this system of physic consist in the minute plan for the examination of patients, the excellence of the diagnosis, and the simplicity of the treatment. This last indeed is carried so far, that to some it may seem to approach that undefined line which separates a merit from its kindred fault.

In the first lecture, when discussing the progress of medical science, Dr. Armstrong falls into mistakes which we should call very strange, if it were not that they are very common. After quoting Bacon, who says that up to his time but one man, Hippocrates, had studied physic the right way; and, after making the physician of Cos a standard by which to judge the merits even of Sydenham himself, we come to such errors as these:

"If we pass on from Egypt to Greece and Rome, where the cultivation of the fine arts was carried to the highest perfection, we shall find that but little progress was there made in the study of medicine; and it may be interesting to trace the causes which retarded the progress of this most important science.

"The first was ignorance: the ancients knew scarcely anything of anatomy and physiology. Their horror of dissection kept them in a state of profound ignorance of anatomy. Their physiology and pathology, for the same reason, were mere conjectures, and their conjectures were made without good foundation. Rather than wander in doubt, the human mind will always rest in error."
(P. 2.)

So that Hippocrates, a few lines after being a standard of professional knowledge, becomes one of the makers of little

progress, one of the profoundly ignorant of anatomy! The plain truth is, that those who accuse the ancients of ignorance of anatomy shew their own perfect ignorance of the books which they are libelling. Who is there who, when reading Celsus, was not struck with the passage in which he gives the principles of those "qui rationalem medicinam profitentur?" After telling us that they judged the study of physiology necessary to the practice of physic, he goes on to say: "Præter hæc, cum in interioribus partibus et dolores et morborum varia genera nascantur, neminem putant his adhibere posse remedia, qui ipsas ignoret. Necessarium ergo esse incidere corpora mortuorum, eorumque viscera atque intestina scrutari; longeque optime fecisse Herophilum et Erasistratum, qui nocentes homines, a regibus ex carcere acceptos, vivos inciderint, considerarintque etiamnum spiritu remanente, ea, quæ natura ante clausisset, eorumque positum, calorem, figuram, magnitudinem, ordinem, duritiem, mollietiam, lævorem, contactum; processus deinde singulorum et recessus, et sive quid inseritur alteri, sive quid partem alterius in se recipit. Neque enim cum dolor intus incidit, scire quid doleat, eum, qui, qua parte quodque viscus intestinumve sit, non cognoverit: neque curari id, quod ægrum est, posse ab eo, qui, quid sit, ignoret. Et cum per vulnus alicujus viscera patefacta sunt, eum, qui sanæ cujusque colorem partis ignoret, nescire quid integrum, quid corruptum sit; ita ne succurrere quidem posse corruptis. Aptiusque extrinsecus imponi remedia, compertis interiorum et sedibus et figuris, cognitaque eorum magnitudine: similesque omnia, quæ posita sunt, rationes habere. Neque esse crudele, sicut plerique proponunt, hominum nocentium, et horum quoque paucorum suppliciiis, remedia populis innocentibus seculorum omnium quæri."—Lib. i. cap. i.

Now, without defending the excessive zeal of these ancient dissectors, or lauding them for cutting their way to knowledge through living flesh, we must say, that it seems most flagrantly unjust to accuse them of lukewarmness in the cultivation of anatomy: it is as if Venus had been accused of being a prude. We hope, however, that the increasing study of the old writers among the rising generation will prevent even the most ordinary minds from being seduced by fancies like these, though they have led astray a Lawrence and an Armstrong.

We have already observed, that the preliminary part in which our author teaches the method of investigating disease is extremely good, and the following quotations will, we think, support our opinion. They are taken from the 7th

Lecture, in which Dr. Armstrong gives the indications of a sound and of a morbid condition of the sanguiferous system.

“Celsus makes an important observation with regard to the pulse, and one which every medical man should recollect, especially in visiting females. If a medical man, for example, at his first visit to a female, feel the pulse, he will often find that it will be 100, 120, 130, or even 160, with no other bad symptom. In these cases you should invariably follow the rule laid down by Celsus.

“The moment a medical man enters the room to visit a female she pants and heaves at the chest, and the pulse becomes very quick. But after a time the respiration becomes tranquil, and the pulse becomes natural.

“Celsus says you should always feel the pulse twice, when you enter the room, and again before you leave it.

“If you judge from the first impression alone you will very often be deceived.

“And then certainly a long face has the effect of quickening the pulse; a solemn aspect often frightens women dreadfully, the heart pants and the pulse becomes quicker.

“The pulse may be quickened from organic disease affecting the heart, from tubercles in the lungs, or from extreme morbid sensibility of the nervous system.

“All persons who have extreme sensibility of the nervous system have a very rapid pulse. Women frequently complain of a pulse all over, at every part of the body. This depends upon the nervous system operating on the minute capillary vessels so as to produce an universal sensation of pulsation.

“Copious abstraction of blood will quicken the pulse even of a person in health; and if you bleed a person in health to-day, to-morrow, the next day, and go on thus, you will produce fever, and on the fourth day the blood will be covered with a thick buffy crust, or, as it is called, the inflammatory coat.

“Again, general debility quickens the circulation very much; and this may often be perceived in weak convalescents.

“A convalescent patient lies in bed, and desires, day after day, that he may be allowed to get up. At one visit the medical practitioner finds the pulse, in the recumbent posture, as slow as 60, and allows the individual to get up, and at the next visit he finds him perhaps sitting up by the fire, with a pulse of 120, or even as high as 160.

“When the pulse becomes thus quickened in the erect posture never allow a weak convalescent to sit up long; if you do, the heart partaking of the general weakness, and thus having the frequency of its action increased, the patient is sure to have a relapse of fever.

“The rule with regard to convalescents is this: if when a convalescent is sitting up, you find him with a slow pulse, he is safe; but if you find him with a pulse weak and quick, you must lay him

flat, and never allow him to sit up more than a quarter of an hour or half an hour for the first, second, third, or fourth time, so as to accustom him to it gradually.

“The pulse may be preternaturally *slow*.

“When you have known the natural frequency of the pulse of an individual to have been in health 70, and being called to visit him find the pulse as low as 50 or 60, and especially if it be labouring and irregular, you may suspect that there is some mischief either in the brain, the lungs, or the heart, and should investigate the case accordingly.

“You should ascertain first, whether the patient has been taking any medicine which may account for the slowness or irregularity of the pulse. I have been called several times to patients in whom the pulse has been reduced very much by the daily exhibition of digitalis, and has become very small. The same thing may occur from the continued use of antimonials.

“Sometimes it is from the exhibition of opium, the opium having gorged the brain with blood, which has produced this change in the heart’s action.” (P. 80.)

* * * * *

“The first kind of irregular pulse may be called:

“1st. Oppressed.

“This is a kind of pulse which is very difficult to describe in words, although it is so peculiar I can readily recognise it. It gives one the idea as if the heart were struggling to throw off some superincumbent weight, or as if a weight were pressing upon a spring, which was reacting to endeavour to throw it off. This state of pulse frequently precedes apoplexy. It frequently depends upon congestion of the heart, the lungs, the brain, or the liver. It almost invariably happens that this oppression or obstruction is removed by bleeding, and it seems to indicate, as it were, the necessity for it.

“The pulse may also be,

“2d. Intermittent.

“When it is perfectly regular, you have sixty or seventy strokes in a minute. But when it intermits, you may count the pulsations, say, one, two, three, four, and then you lose the fifth; there is an intermission of the pulse between perhaps the fourth and the sixth beats. In other cases the intermission is at the tenth, twelfth, or twentieth beat, so that in fact there is a loss of a stroke ever and anon.

“This intermission of the pulse attends various conditions.

“I recollect that when I was a young physician this would have alarmed me exceedingly, for I thought it must depend upon organic disease. But now, if I were to observe an intermittent pulse, I should set about investigating the circumstances accompanying it.

“It is extremely common to meet with it in weak convalescents, on sitting up, from the heart partaking of the general debility; and in these cases it is of no consequence provided you do not

allow the individual to sit up too long. In these instances you should be careful, as it were, to secure the strength by avoiding all demands upon it; by which means, and by a little wine, with a nutritious diet, this state of the pulse will be removed, together with the debility.

“Another frequent cause is disorder of the stomach, liver, or colon: indeed, this is the most common cause.

“When it occurs with a furred tongue, unnatural stools, or with overloaded large intestines, be careful not to pronounce an opinion that it depends upon organic disease; for the intermission of the pulse will cease by removing the disorder of the stomach, of the liver, or of the bowels. If the tongue be loaded you need hardly ever fear that this symptom depends upon organic disease.

“I know many persons, especially ladies, whose pulse becomes thus disturbed from a foul stomach, from an overloaded colon, or from a disordered state of the liver.

“Many medical practitioners have a pulse thus disturbed without any organic disease. A medical man, for example, finds that his pulse intermits, and he becomes very much alarmed at it; whereas, if he had observed it in any other individual under the same circumstances, he probably would not have been in the slightest degree frightened at it.

“But sometimes an intermittent pulse does attend organic affections of the heart, and then you will have other symptoms which indicate such organic change. If you come to observe minutely, you will find that in this case there are very distinct symptoms of organic affections, which are entirely absent when the intermission depends upon any other cause. The late Dr. Baillie thought that adhesions in the bag of the pericardium often were a cause of an intermission in the pulse. Though I entertain great respect for the opinions of Dr. Baillie, yet I believe that in this opinion he was mistaken: at least, I have seen several instances of such adhesions in individuals in whose pulse during life I never had observed any intermission; and I believe that if it be a cause of an intermittent pulse, it is an extremely rare one.” (P. 86.)

“Sometimes the sound of the heart is changed (the stroke of the heart being also changed,) in strength, in extent, and even in kind.

“If the substance of the heart be very much increased the extent of the sound is much greater than natural; it is much stronger than natural, and it emits a different sound. If the substance of the heart be thinner and softer than natural, the sound is more clear, more soft, and more fluent, than natural.

“If the valves of the heart be ossified there is a very peculiar sound, which Laennec compares to the sound produced by the compression of a pair of bellows. I have often heard this sound produced by the whizzing of a toy which boys have, and which is called a whiz-gig. Sometimes there is a cooing noise, like that of a turtle dove, very distinct.

“A gentleman occasionally calls on me whose heart emits a sound very much like that of the cooing of a dove. I have no doubt that he labours under enlargement of the heart with ossification of the valves. The sound is so distinct, that if I lay my hand over the region of the heart I can hear this cooing noise, which is conveyed along my arm to my ear. It is just like what you would imagine the cooing of the turtle dove would be if confined within the chest. Now, if this were a poor man, who had a mind to make his fortune, he might easily make all the old women believe that he really had a live turtle dove within him.

“In certain organic affections of the heart sometimes there is a very peculiar feel, an emphysematous feel, in the carotid and subclavian arteries; it is also felt in the wrist. The artery feels exactly as if air were collected in the cellular connecting membrane of its coats. Laennec supposes that air really is so collected. When it occurs, it generally attends organic affection of the heart, but not always.” (P. 89.)

In the next Lecture, on the sound and morbid condition of the “Concoctive and Absorbent System,” Dr. Armstrong has many valuable observations on the appearance of the stools; some of them will be particularly useful to practitioners afflicted with the mercurial monomania, who, Hahnemann-like, give calomel to cure what calomel has caused; but, un-Hahnemann-like, give it in doses which are by no means infinitesimal.

“You must take into account the natural colour of the stools. You should always consider the healthy state, and contrast it with the state that exists, in order to know whether there be any morbid change.

“Therefore I repeat, you must first ascertain the natural colour of the evacuations. Some have described it as the colour of rhubarb wetted with water, others have compared it to turmeric, and some to virgin gold; but the best way is to look at it if you wish to know its natural colour.

“You must remember that if an evacuation be kept for some time it becomes very dark indeed from exposure to the air in an open vessel; and, unless he took this circumstance into account, a medical man might be very apt to be deceived as to the healthy condition of the evacuations.

“The consistence of the evacuations is of importance in many cases.

“There is a certain healthy consistence, and any deviation from that consistence is a sure indication of something wrong. There is a natural smell in a healthy evacuation which is peculiar.

“All these, then, are very important: and even,

“2d. The size of the evacuations is very important.

“Sometimes you may detect stricture or piles from an unnatural size of the evacuations. In a permanent stricture of the rectum

the evacuations are almost invariably twisted like a corkscrew; but recollect that the same also occurs occasionally from a temporary stricture.

“ 3d. The colour of the stools is important.

“ When there is a deficiency of bile, the evacuations sometimes are of the colour of lime, of pipe-clay, or of slate.

“ When there is an excess of bile, the stools are deeply tinged of a yellow colour, and are generally looser than natural.

“ The bile may be depraved, and then the colour varies; sometimes it is as dark as tar; and then it may be distinguished from blood by holding it to the light, or by mixing it with water.

“ Or the evacuations may be like melted resin. This very often is the case in typhus fever.

“ Or sometimes they are green in colour from the same cause.

“ You must take into account the influence of diet, and the influence of certain medicines, upon the colour of the evacuations.

“ If an adult live upon a milk diet there will be an apparent deficiency of bile in the evacuations; and if you were not aware of this circumstance you might presume that the liver was disordered, and put the individual very unnecessarily under a course of mercury. So too, if you inferred from the green appearance of the evacuations that the liver was disordered so as to require the use of mercury, you might be mistaken, for this green colour of the stools might be produced by mercury. A glairy green appearance of the stools is very frequently indeed produced by mercury.

“ Again, a curdled appearance of the stools is a very common effect of the exhibition of mercury. Another kind of stool which is very common from mercury is one which very much resembles mock-turtle soup.

“ Now you might think that this is of no consequence, but it really is of immense importance, especially in London. For instance, a dose of mercury is given, and the stools are examined, and to some men the conclusion is irresistible, that because the stools are of a morbid appearance mercury must be requisite to correct them. A medical man, therefore, exhibits mercury for a supposed disorder of the chylopoietic viscera, especially the liver; and thus the unnatural state of the stools, which was first produced by mercury, is afterwards maintained by mercury. I recollect I once saw a lady who had been for several months undergoing courses of mercury; the blue pill was continued to correct the stools, till she was reduced to a skeleton, and was rendered so nervous that an angry look made her shed tears, and if the door were suddenly opened she started, and was excessively agitated. The blue pill was left off, and the natural appearance of the stools soon returned. I recollect I saw a case in which four grains of calomel were given every six hours, and produced stools very much resembling mock-turtle soup; I told the medical man that the exhibition of the mercury was the cause of the unnatural

stools. The mercury was left off, and the stools again became natural.

“ If you neglect to pay attention to this circumstance you may entirely destroy the health of an individual. Thus the exhibition of mercury day after day, with a cool skin, is one of the most destructive practices with which I am acquainted. There is now a work, written *ad captandum*, in which it is laid down as a rule, that mercury is to be continued as long as the stools are unnatural. If you were to follow this advice, and give mercury day after day, and week after week, you would very often commit a serious error, and ruin the health of your patient.

“ If you have any doubt of the cause of the unnatural appearance of the evacuations in any case, omit the mercury, and omit all medicines for a few days, and see whether it depends upon the exhibition of mercury.

“ If any man in health have his mind constantly and entirely engaged, you will find that the stools will undergo a great change. No man can have observed the influence of mental emotions upon the functions of the body, without having noticed the changes which the state of the mind produces in the secretions and excretions—as the *fæces*.

“ The incautious and indiscriminate use of mercury is a great and a growing evil, in this town especially, where there is as much fashion in physic as in fitting-out the shops in Bond-street.

“ There are also other medicines which produce a change in the appearance of the stools.

“ Iron changes the colour of the evacuations to black.

“ A friend of mine cured an hypochondriac patient by turning his stools black with iron. This patient had been from one doctor to another, but still he said he was no better. My friend said to him, ‘ These doctors have all entirely mistaken your case. I can very soon cure you. Your complaint arises from some black matter in your bowels, which wants to be purged away.’ He gave the patient some sulphate of iron, and made his stools as black as ink: and then he gave him a purgative, and told him to look at his stools, and see whether the black matter had come away. The patient was so delighted with his black stools, that, as soon as he saw them, he ran to the medical man, and said, ‘ Doctor, I have passed it—I have passed it—as black as my hat! and now I am cured!’

“ Sulphur changes the stools very remarkably; it darkens them.

“ Senna darkens the evacuations.

“ Spinach renders the evacuations green; and, if you did not happen to know the influence of different kinds of food upon the stools, you might form an erroneous opinion from the examination of the stools after an individual has been eating spinach.

“ Some wines influence the colour of the stools. Claret gives a very peculiar laky tinge to the *fæces*. If you wish to know precisely the colour which it produces in the stools, take a few glasses or a bottle. You will find claret a very nice wine.” (P. 100.)

Our author's account of congestive fever is exceedingly good; and the interest of the following extracts must be doubled by the reflection, that the Asiatic cholera itself is but a violent form of this disease.

“Whenever you are called to a patient in the extreme shock of an accident, with a pale skin, with a sunk countenance, with a feeble pulse, and with a weak respiration, do not bleed him at all, but give him a little wine or brandy. A friend of mine was called to a young lady in this state, about three weeks ago; the friends of the lady urged him to bleed her, but he refused, and told them that if he bled her she would die. On the contrary, he gave her diffusible stimuli; and he did perfectly right. It is by far too common for medical men to abstract blood immediately they are called to an accident; but the first extreme shock should be past before bloodletting is resorted to. One gentleman, whom I saw frequently in the country, used to treat common congestive fever, first by brandy, secondly by the hot-water bath, and thirdly by bleeding. He was a very good practitioner, but his ideas passed so rapidly through his mind, that he had not time to analyse them. His practice was to put the patient into a hot bath with salt, and during the time he was in the bath to give him brandy, and then bleed him. Now this is not bad practice. He in fact created a degree of excitement before he abstracted blood; and then he bled with great caution: when he had once created excitement, then he ceased to use stimulants, either internal or external; and that is the proper plan to adopt.

“I saw a gentleman one morning who had an attack of the extreme form of common congestive fever. His surface was universally pale and cold; he had an intoxicated expression of countenance; when lifted, he dragged his limbs after him as if they were paralytic; his lip and cheek, together with the state of the respiration, showed an extreme congestion in the lungs and bronchial lining; he had also copious purging and vomiting; in short, he had congestion in the brain, in the bronchial lining, in the lungs, and in the liver; and laboured under what would be called an attack of cholera morbus. The attack came on at seven o'clock, and I saw him at eight; and I am confident he would have died in an hour or two more. All the ordinary means had failed to create excitement; brandy, opium, and so on, had been tried; and then I sent for a hot-air bath. In half an hour after its application the surface became universally warm, and he was perfectly convalescent.

“I attended a young lady who was attacked with giddiness, universal and oppressive debility, vomiting, and diarrhœa. When I saw her she looked like a person intoxicated; the tunica conjunctiva was blanched, the face pallid, the surface of the body cold, the respiration weak and impeded, and the lips were blue; she had no muscular power; the head rested on her shoulder, and the hands were by her sides. I placed bottles of hot water to the

feet, a bladder of hot water to the stomach, and gave her hot water and opium internally. Nothing, however, was of benefit, and it was apparent that she was rapidly sinking. In this case I sent for a hot-air bath, which was immediately applied; and in half an hour the pulse rose and was bounding, her countenance became animated, and she was nearly convalescent. Nothing further was required but the exhibition of slight calomel purges. This, according to our nosologists, would be called cholera morbus, but it was a case of congestive fever; and in these cases, if assistance be not promptly rendered, death will be the consequence: the blood will coagulate in the interior of the body.

“I saw another individual, who was brought into the Fever Hospital, who was sinking very rapidly from an extreme form of congestion of the lungs, and of the bronchial lining; and the hot-air bath produced a state of excitement almost immediately, and by following this up by small doses of calomel and opium, he did perfectly well.

“Just before lecture one evening I was called to a young lady, who had been out all the morning, and was very cold, and as soon as she returned home ate a piece of cold apple dumpling. She had an idiotic expression of countenance; she was stupid, and had a flow of saliva from the mouth; the respiration and heart's action were impeded, and her skin was universally cold. I directed the exhibition of an emetic, which did not operate; but by the application of the hot-air bath all these symptoms were removed with very great rapidity, and on my return I found her convalescent.

“I recollect I saw a young man who laboured under an extreme form of congestion in the spinal cord; he was struggling in convulsions, with a clear head, and with a feeble pulse; and the symptoms in this case were rapidly removed by the use of the hot-air bath. This individual was afterwards preserved several times from an attack of congestion by the administration of drachm-doses of the tincture of opium. * * *

“When offending ingesta produce congestion life sometimes depends on the exhibition of an emetic. You read in the papers of cases of apoplexy arising from this source; but the fact is, the stomach being disturbed, the heart's action sinks, and, by consequence, the flow of blood from the brain is retarded, and the patient falls down pale and insensible, and sometimes dies as if he were shot. In some cases the person may live in this state for hours.

“In extreme cases the best emetic is sulphate of zinc. I saw a case in which it operated almost like a charm.

“A gentleman who was travelling ate some cold veal pie, and fell on the floor in a state of extreme congestion, with the heart extremely oppressed. A large dose of sulphate of zinc was given, and all the symptoms were got rid of by vomiting.

“In these cases sometimes emetics do not operate; and, when the skin is universally cold, the pulse feeble, the respiration op-

pressed, and the prostration of strength very great, life may be saved by half a glass or a glass of dry brandy, with twenty, thirty, or forty drops of tincture of opium. Sometimes the pulse is struggling, the respiration anxious, the intellect clear, and the heat of the skin nearly natural; and then brandy is useful. If no emetic be at hand, introduce your finger into the throat, or tickle the fauces with a feather. A teaspoonful of mustard given in tepid water will cause vomiting, or oil may be given for that purpose. These cases are often succeeded by inflammation, and therefore you should attend closely to the patient for a day or two. When a large quantity of spirit has been taken, the patient sometimes falls in the same way. If the pupil contract on the application of light, and an emetic operate, the patient generally recovers. If emetics fail, apply the instrument. An elastic bottle has long been used for this purpose." (P. 164.)

The preceding observations apply to the extreme form of congestive fever: the intermediate form bears bleeding in the commencement; but still "never bleed a patient to syncope in congestive fever; for, if you do, he may die under that state. It is better to stop while you have a pretty round pulse. And here I may remark, that in cases of organic affection of the heart you should never bleed to syncope." (P. 170.)

When speaking of the mild form of the same disease, our author says,

"One point of very great importance is the chill of the surface. If you investigate the history of examples of acute and of chronic diseases of a serious character, you will find that many of them were preceded by an universal chill of the surface, which chill will very often be found to have continued a great many hours. This takes place in many of the cases of congestive, of simple, and of inflammatory fever, which occur in this country, from the low and variable temperature of our atmosphere. And no rule is more important to the public than that which instructs them to restore the natural heat of the surface as early as possible. I generally mention this to all the families whom I attend. I advise them, if ever they be chilled, to make for the first hot bath they know of, and restore the heat of the surface.

"The chill very often continues for many hours before dangerous venous congestion comes on; or before excitement, the consequence of which often is an attack of inflammatory fever, occurs; and, by the use of a hot bath, you may often prevent a great deal of mischief. The temperature of the bath in these cases seldom ought to be less than 100° Fahr. In Paris you may have a hot bath in any house at five minutes' notice. In every well-regulated government there ought to be a Minister of Health. There are many things in London the effects of which are very injurious to the public welfare; and the notorious deficiency of warm baths is one of them.

Besides this there are a great many others which I could mention." (P. 172.)

It must be confessed, that the deficiency of baths, and the neglect of bathing, in this country, are most reprehensible; and, as in many other instances, society seems confined in the iron limits of a vicious circle: there would be more baths, says A., if there were more bathers; no, replies B., if there were more bathers, there would be more bathers. Any one who could afford the risk, and would set on foot half-a-dozen establishments where a warm bath could be procured for a trifle, would be a benefactor to his country. A great evil also arises from bathing being considered synonymous with cold bathing: thousands who dislike the cold bath, and have been told that the warm bath is "relaxing," go about, in consequence, in contravention of the laws of Hygiene, with the skin in an unwashed, untranspiring state.

In speaking of the morbid anatomy of the pleura, Dr. Armstrong says very correctly, "Partial adhesions often take place from effusions without pain, the consequence of slight inflammation, which is not perceived. You will scarcely examine any person above forty years of age, in whom there is not some adhesion of the pleura, although perhaps through life there was no complaint of symptoms of inflammation of the chest." (P. 220.) Does not this well-known fact shew almost to demonstration the inutility of bleeding in very slight inflammations, which get well of themselves? In these pleuritic cases, which occur by myriads, the disease neither injures the constitution, nor permanently affects the respiration; yet, if detected during the life of the patient, would almost inevitably entail upon him some very active treatment.

Our author enters at length into the relative advantages to be derived from the different modes of abstracting blood. He dislikes cupping, which he calls barbarous, and supposes (erroneously, we think,) to be equivalent in its effects to venesection: the application of leeches he extols.

"There seems to be something peculiar in the effects of leeches, especially when the heat on the surface is not very high, and the heart's action not very much increased. My attention was drawn to this peculiarity of effect accidentally.

"I ordered a gentleman to be bled for a pulsating pain in the head, corresponding in frequency to the pulsations of the radial artery. He was bled repeatedly for it without relief. I then ordered twelve leeches to the temple, and accidentally putting my finger on the radial artery, I found that the pulse had fallen twenty beats; though it had not fallen before under repeated large bleedings from the arm. The leeches completely relieved

the pain in his head. I could not account for this, but I have observed it repeatedly since." * * *

"Leeches seem to have a far more powerful effect in relieving inflammation of the mucous membranes than either cupping or the lancet. They seem to have some specific influence on the heart's action, and, through it, on the circulation. This was remarkably displayed in my own case when I had an attack of dysentery; I was passing slimy and bloody evacuations every half hour; but, after the first three applications of leeches, I passed no blood at all in the stools. We have many similar examples of certain effects produced by the operation of certain medicines or remedies on certain parts of the body; thus, when the female breast is distended after delivery, the milk will disappear in a great measure if you give a purgative." (P. 324.)

Dr. Armstrong gives two cases in which the hemorrhage from leech bites was fatal; and he recommends that, when leeches are applied to infants, they should be applied over a bone, in order to facilitate stopping the bleeding by pressure. After mentioning several astringent applications, he says, "A very good styptic is made of equal parts of sulphate of iron and superacetate of lead." (P. 325.) These two astringents will decompose each other, forming acetate of iron and sulphate of lead.

It is painful to us to see our author, in various parts of these lectures, endeavouring to tear the laurel wreath from the brows of Cullen and Heberden; vainly supposing that his censures could cloud reputations which know no other limits than those of the civilised world! He accuses Cullen of having given a very faulty definition of typhus fever; and says, "indeed, we have nothing but words under the miserable system of Cullen." (P. 563.) The truth is, however, that Armstrong's and Cullen's definitions of typhus nearly coincide, excepting that our author supposes the disease not to be contagious. Dr. Armstrong moreover imagines typhus and ague to be kindred diseases, and to arise from the same cause. He also believes plague, yellow fever, and typhus fever, to be modifications of the same affection. The following is his account of the post-mortem appearances in typhus fever.

"If you cautiously examine bodies after fatal cases of continued typhus fever, you will find the following appearances:

"You will find, on cutting the brain, that it exhibits more bloody points than natural; that the pia mater is gorged with red blood; that the arachnoid membrane is milky or opaque in some places, and thickened; that there is some effusion of fluid, generally serum with loose coagulable lymph, between the membranes; and that

the membranes of the spinal cord are in a similar condition; at least, as far as my examinations have gone, it has been the case. Of the state of the brain and its membranes I can speak confidently, having invariably found them affected in more than one hundred cases, without a single exception.

“The bronchial lining is invariably found highly congested with dark blood, and a sticky secretion which besmears the membrane exercises a most important influence over the pathology of the affection, by changing the constitution of the blood in a way which I have already explained. If the sticky varnish be washed off with a sponge, the membrane exposed to the air soon becomes vividly red.

“The liver generally contains more blood than natural, and a venous or arterial tree is found in the mesentery, when no calomel purges have been given. If calomel purges have been given, then the appearance of the liver is pretty natural.

“Some traces of inflammation are found invariably in the mucous membrane of the small intestines, and especially of the lower portion of the ilium. This portion of the ilium is invariably found inflamed, either with or without ulceration. When the affection has gone on for a fortnight or three weeks, you will almost invariably have inflammation and ulceration there, and the mesenteric glands will be more or less enlarged. When diarrhœa has existed the upper part of the colon also will be found inflamed.

“Occasionally the mucous membrane of the stomach is red, thickened, and pulpy.

“Sometimes it happens that the internal tunics of the arteries and veins are inflamed. This seems to be an accidental concomitant, and not a necessary or essential part of the affection.

“Sometimes, though rarely, the serous membranes are inflamed; but this too seems rather an accidental than an essential part of the pathology, if we except the arachnoid membrane of the brain, which I suppose we must consider as a serous membrane.

“The skin undergoes great changes: generally it is universally dry, and furfuracious, and more contracted than natural. When the internal mucous membranes are much affected, the functions of the skin are generally considerably disturbed also.

“Whatever be the age, whatever be the sex, and whatever be the constitutional peculiarities of the individual, there is this remarkable circumstance, that this malaria, when it brings about continued typhus fever, produces in all persons uniformly the same affection of certain parts, the same affection of the brain and its membranes; the same affection of the bronchial lining; the same affection of the mucous membrane of the small intestines; and the same affection sometimes of the mucous membrane of the stomach.” (P. 564.)

In discussing the regiminal treatment of this disease, he tells us that

“Rush, who has been called the American Sydenham, mentions

a very remarkable and interesting case, showing the influence over typhus fever which is produced by cheerful impressions on the mind. When a youth he was educated in the country, in a very remote part of which he was in the habit of visiting, in company with a farmer's daughter, various scenes of beauty and sublimity, and, among others, the nest of an eagle in a romantic situation. For some time these visits were very frequent. Rush afterwards left the school, and settled in Philadelphia, where he found his former associate a married woman. Many years after she had an attack of typhus fever, under which she lay in a complete state of insensibility, apparently lost to all surrounding objects. In this state Rush, then a physician, was called to visit her. He took her by the hand, and said with a strong and cheerful voice, 'The eagle's nest!' The words revived an association of ideas comprehending the actions of her youth. She immediately grasped his hand, opened her eyes, and from that hour recovered rapidly." (P. 573.)

Our author says,

"I have known several individuals excessively dissipated among women, who have, by adopting certain precautions, avoided both chancre and gonorrhœa. They were extremely cleanly, and after indiscriminate intercourse they used soap and water twice or three times, and two or three clean towels. I know one individual who had been several times the subject of gonorrhœa and chancre, but who never had an attack after he adopted this plan, although he continued equally dissipated. I think it is almost a complete preventive." (P. 763.)

We have sometimes thought that this precaution must be of more efficacy in preventing chancre than gonorrhœa; or, in other words, that the prevention of the latter disease must require very industrious and vigorous washing indeed, if it arises from particles of virus lodged in the urethra. Still it is an admirable preventive. Diluted liquor potassæ, which is often recommended, has one advantage: it is medicinal, and therefore more likely to be adopted.

It is almost needless to give a formal recommendation of a work like this. Our numerous quotations carry their own panegyric with them. Mr. Rix has our hearty thanks for the zeal and ability which he has displayed in enriching medical literature with this excellent text-book.

Erfahrungen über die Erkenntniss, und Heilung der langwierigen Schwerhörigkeit. VON DR. W. KRAMER.—Berlin, 1833.

Practical Observations on the Knowledge and Cure of Chronic Deafness. By Dr. W. KRAMER.—Berlin, 1833. 8vo. pp. 106.

IN the review of Mr. Lawrence's work, in our first number, we ventured to assert that medicine has its debateable ground; that, in the empire of the healing art, as in some disorderly, half-civilized state, there are distant tracts over which the authority of the scientific practitioner seems scarcely established, and where the noisy charlatan (like the moss-trooper of old,) bears sway, in the absence of some more respectable functionary. Now, many judicious persons are disposed to think that all which concerns the art of curing the diseases of the auditory apparatus is at present in this unsatisfactory state, and they are apt to compare aurists to those "juggling fiends" of whom *Macbeth* speaks:

"That keep the word of promise to OUR EAR,
And break it to our hope."

The passage, indeed, from which we have quoted, seems especially designed for the reprehension of semi-medical writers, for they really "palter with us in a double sense:" while one eye is directed to the profession, the other, by a kind of authorial strabismus, is turned to the public; and their books, between these two sources of patronage, of course, fall to the ground. This strong and natural prepossession against ear-books must not, however, prevent our readers from listening to Dr. Kramer; for he is a sober and a candid practitioner, narrates his failures as well as his successful cases, and has produced a work worthy of the highest commendation.

In the introduction, Dr. Kramer observes that total blindness is not so great a misfortune as total deafness: he who is deprived of sight can associate freely with his fellow-creatures, and take part in the merriest conversation; while the deaf man distrustfully contracts more and more the circle of his acquaintances, suspiciously watches every motion of the lips of his best friends, and, retiring from cheerful society, in which he cannot participate, sinks deep into gloomy reveries. It might naturally be expected, therefore, that the pathology of the ear should have been studied with as much zeal as that of the eye. But this is far from being the case; for, while ophthalmological books are sufficiently numerous to form a considerable library, the list is short indeed of those writers who have studied diseases of the ear; and still shorter is the catalogue of those who have studied them with advantage.

Itard deserves the first place, for his work entitled "*Traité sur les Maladies de l'Oreille et de l'Audition*," which is a treasure of well-founded observations on the acute and chronic diseases of the organ of hearing; but the latter, unfortunately, have not been treated with so much attention as the former. "Far be it from me," says Dr. Kramer, "to wish by this remark to make the great merits of Itard appear less; but he is certainly in the wrong when he treats of tinnitus aurium as if it were an independent disease, though it is without exception merely a symptom accompanying the most varied forms of diseases of the ear,—when at one time he divides chronic deafness into species, according to the causes which produce morbid changes in the organ of hearing, and at another time, according to these morbid changes themselves; and we must deeply lament that he passes over the treatment of chronic deafness so lightly, since its frequent occurrence, and obstinate continuance, demand the most attentive and circumspect treatment."

Next to Itard, Dr. Deleau deserves especial mention, though unfortunately he wastes his strength in little ephemeral essays, in order that his eagerness for distinction may be gratified by being continually before the public. In every page of his writings he cries up his own great merits, which, when accurately investigated, may be resolved into this one point, that, in treating diseases of the Eustachian tube, he has substituted the air-douche for watery injections; the advantage of which is not so preponderating as he would have us think. All the remaining writers, says our author, have advanced the study of these diseases but little, or not at all; they content themselves, for the most part, with repeating the errors and prejudices of their predecessors, not even noticing well-established truths: thus, for example in the writings of Curtis, Riedel, Beck, and others, we find no mention of Itard and his excellent work.

In treating chronic deafness, it is necessary to observe accurately the distance at which the patient can hear; for without this it is impossible to judge of the intensity of the disease, or of the value of the treatment pursued. This has been hitherto but little done, and hence the small value of the cases published. Perfect deafness is very rare, and is always incurable; it cannot be meant therefore, when we read, as we so often do, that the patient had lost his hearing. It is, of course, a matter of great interest to know to what degree the patient's hearing has suffered in each single case; and for this purpose Itard invented his *acoumètre*, (*Traité, &c.* vol. ii. p. 50,) an instrument to measure the distance at which a given

sound is heard. In the whole of his work, however, there is not a single instance in which he made use of this instrument; a circumstance which greatly weakens our opinion of its utility.

Dr. Kramer uses his watch for this purpose: its ticking can be heard by a healthy ear at the distance of twelve or fourteen ells, when all is still around. This is undoubtedly a very convenient instrument, and the only objection to its use consists in the immense variety of strength in the ticking of different watches: if the reader should happen, like ourselves, for example, to have a watch with Geneva works, he will find that none but *Fine-ear* himself could hear its ticking at the distance of twelve ells.

After describing the anatomy of the organ of hearing, Dr. Kramer gives his method of examining, or, as he terms it, catheterizing the Eustachian tube. He uses for this purpose a silver catheter, five inches and a half long, and varying from the thickness of a crow-quill to that of a goose-quill; it is straight, excepting for five lines near its point, where it is bent at an angle of 144° , in order to correspond with the entrance of the Eustachian tube. The catheter is of equal thickness throughout, excepting at the external extremity, where it is broader, in order to admit the pipe of an injection syringe. At this end of the catheter likewise a ring is soldered on, to shew by its situation the position of the point after it has been introduced into the nose. The Eustachian tube is examined in the following manner: The patient being placed on a chair, the operator sitting down before him, takes hold of the catheter immediately above its funnel-like expansion, keeping the concavity of the catheter downwards; and then, bringing the point into the lower nasal meatus, he pushes it quickly, but carefully, into the fauces. This manœuvre must be executed with a delicate and sure hand, partly in order to spare the patient pain, and partly in order to overcome with success all the difficulties which stand in the way of the catheter, from the lateral deviation of the septum narium, and from irregularity in the structure of the nasal muscles, difficulties which cannot be surmounted by rule.

The catheter being now introduced so far as to touch the posterior wall of the fauces, (till when the ring, and consequently the point, are directed downwards,) the handle must be raised, and the point will glide over the roundish prominence of the *hamulus pterygoideus*, and, touching the posterior wall of the *velum palati*, will compel the patient to swallow; while this takes place, the operator turns the ca-

theter one quarter round its axis outwards and upwards, and it enters the Eustachian tube. It is now arrested by the cartilaginous ring at the entrance of the Eustachian tube; the most certain sign for an experienced hand that the catheter has been properly introduced. The ring of the instrument is now horizontal, or even a little turned upwards, and the patient experiences no pressure or inconvenience from this little operation. The process is much facilitated if the calibre of the catheter exactly corresponds with the nasal meatus of the patient, so as perfectly to fill it up. The catheter being now properly situated in the entrance of the Eustachian tube, the operator blows into it, either with his breath or with a small pair of bellows; the patient then feels the stream of air pressing against the membrana tympani, and attempting to force a passage outwards; a proof that the Eustachian tube and the cavity of the tympanum are free from any mechanical obstruction. But, if the patient has not this sensation, we may suppose the existence of mucous accumulations, strictures, or adhesions, in these cavities: the method of distinguishing these will be detailed afterwards.

Passing over the rest of the introduction, we come to Dr. Kramer's division of the chronic diseases of the organ of hearing. These he divides into three classes:

1st. Diseases of the external ear, *i. e.* of the external meatus.

2dly. Diseases of the middle ear, *i. e.* of the Eustachian tube, and the cavity of the tympanum.

3dly. Diseases of the inner ear, *i. e.* of the labyrinth.

The first class again is subdivided into

1st. Erysipelatous inflammation of the lining membrane of the external meatus.

2dly. Inflammation of the lining membrane, with a disposition to polypous growths.

3dly. Inflammation of the lining membrane and the subjacent cellular substance.

The following are the symptoms of the erysipelatous inflammation: The patient, if he attends to his feelings, observes an itching, prickling, burning, or tearing sensation in the meatus, which causes him to thrust his finger into it; to this are soon added tinnitus aurium, with oppressions and a sense of stretching and fulness in the meatus; there is even confusion and heaviness of the head, (on *one* side only, if but *one* ear is affected,) which become very troublesome, and, together with the tinnitus aurium, even prevent the unshackled activity of the mind.

It often happens that these symptoms of inflammatory excitement entirely escape the observation of the patient, but the difficulty of hearing is never absent: indeed, it is sometimes so great, that the ticking of a watch placed on the affected ear cannot be perceived. The meatus becomes filled with morbid cerumen, so tough that, when the case has been long neglected, it concretes into dirty-grey calcareous masses, the removal of which causes considerable pain, and even slight hemorrhage. The cure is easily effected by injections of warm soap and water; and, should any ulcers remain after this treatment, they are to be touched with the Tr. Thebaïca, or the Tr. Myrrhæ.

Our author observes, with great justice, that the erysipelatous inflammation of the meatus, with its product, the accumulation of morbid cerumen, are well calculated to give reputation to empirical remedies against difficulty of hearing,—such as oily and spirituous substances dropped into the ear; though their success in these instances is apt to induce the erroneous belief that they are of general efficacy against deafness, whereas they are of service only when the disease just described is uncomplicated, and even then watery injections are better.

The following is a good example of our author's clear and sensible manner of narrating his cases.

“H. v. G., aged fifty-four, complained to me of having been deaf of his left ear for the last six months: in fact, he could not hear my watch, even when placed upon it. He had never had tinnitus aurium, and the right ear was perfectly healthy. I found a great mass of dark-brown tough cerumen in the left meatus, which was perfectly cleared out, as early as the second day, by injections of lukewarm soap and water. An ulcer, with elevated edges, was now to be seen at the bottom of the meatus, near the tympanum, of the size of half a large pea; rather large blood-vessels ran from it to the tympanum. The ulcer was touched with the Tr. Thebaïca simpl., and healed in a few days; when the tympanum also recovered its natural brightness and transparency, and the patient could hear at the normal distance.” (P. 25.)

When there is a polypus in the meatus, Dr. Kramer observes, that the symptoms are occasionally mistaken for those of a threatening of apoplexy, and uselessly treated by venesection, &c. In cases of polypus, our author has never seen the membrana tympani penetrated, or the cavity of the tympanum destroyed by caries of the bones; for it would seem that the morbid activity is always directed outwards, and is concentrated in the polypi and their secretion.

The prognosis is almost always unfavourable; for, although

the polypi can be removed in several ways, it is impossible to destroy their roots, especially when they are situated on the membrana tympani, so that new ones are certain to spring up. Moreover, when the membrana tympani itself is the seat of the polypi, it suffers alterations in its structure which unfit it for its office as an acoustic instrument. It is better to remove the polypus with the forceps than by the ligature or the knife; but, should no one of these methods be practicable, recourse must be had to caustic.

In the third subdivision, the inflammation extends to the cellular substance beneath the membrane lining the meatus; there is a purulent discharge, and the meatus, particularly in its deeper parts, is reddened, and, its membrane being swollen, the calibre is necessarily contracted. The process of inflammation and destruction sometimes extends to the membrana tympani, the ossicula auditus, the substance of the os petrosum, and even to the membranes of the brain and the brain itself. The diagnosis is rendered easy by the speculum auris, but the treatment is generally long, and the result is dubious. The treatment should be constitutional as well as local, says Dr. Kramer: he differs in this point, as he observes, from most practitioners; for example, from Saunders and Curtis, who advise, as in discharge from the ears, to begin and end our treatment with astringent remedies, almost without exception. When the inflammation is considerable, a number of leeches are to be applied round the ear, and repeated, if necessary; but, in such cases, fomentations and vapour-baths are almost always injurious. A very strong tartar-emetic ointment, made with one drachm of the salt to three drachms of fat, should also be rubbed on the mastoid process of the affected side, and the suppuration which arises from it must be kept up for a long time. During the first few days of the suppuration, the discharge from the meatus becomes more copious, but then decreases from week to week, and becomes less sharp, while the inflammatory state of the auditory passage subsides, together with its accompanying symptoms. It is only in the most desperate cases that we are to pass a seton through the back of the neck, cut off the hair, and apply dry friction to the head, as Itard recommends. When the inflammation has been considerably moderated by these means, but the contraction of the meatus still continues, (as it commonly does,) it is time to act directly on the meatus itself. This is done by introducing strips of sponge, the size of which is gradually increased as the passage becomes more and more dilated. The introduction of the sponge must be accomplished with a

light hand, otherwise unbearable headach will be the result. When all the advantage has been derived from dilatation that it is capable of affording, but the discharge still continues, then comes the time for the application of astringent remedies, such as the acetate of lead, alum, and the sulphate of zinc: our author prefers the last.

In the second division of his work, Dr. Kramer treats of only three diseases, namely, 1st. Catarrh of the Eustachian tube, and the cavity of the tympanum; 2dly. Contraction of the Eustachian tube; and, 3dly. Adhesion of the sides of the Eustachian tube. The diagnosis of the first of these diseases is generally certain. The catheter is introduced into the Eustachian tube, in the manner already described, and, on blowing through it, the air either does not penetrate the masses of mucus at all, or does so with great difficulty, and with a rattling noise. If this is not sufficient, watery injections may be used; and, if they again do not suffice, a piece of catgut may be passed through till it touches the membrana tympani, thus distinguishing a mucous obstruction from a perfect closure of the tube.

The prognosis is generally favourable. The treatment must be in the first place local, and in the next a general one, intended to amend the mucous and spongy constitution of the patient. In recent cases the first alone is sufficient; and even in old catarrhs the cure is chiefly dependent upon it. The first indication is fulfilled by injections, which have been thrown in by three different methods; namely, through the tympanum, the mastoid process, or the Eustachian tube: but the first two methods are not without difficulties, nay, more, without danger for the integrity of the organ of hearing.

Whether the tympanum has been surgically punctured or been penetrated by suppuration, from its retired position it is impossible to put the point of the syringe exactly on the opening in the membrane. But, if the injection is thrown merely into the external meatus, and that with great force, as Itard recommends, either the opening in the membrane must be considerable if the injection is to have any effect, or the stream of water is much more likely to destroy the membrane entirely, than to force the accumulated mucus through the Eustachian tube into the fauces.

If, in consequence of destruction by caries, there is an opening in the mastoid process, through which injections can be thrown into the cavity of the tympanum, we shall not derive any benefit from this circumstance; for the force of the stream of fluid is so much broken by the cellular septa in

the mastoid process, that the intended effect upon the mucus in the cavity of the tympanum will be nullified. As to perforating the mastoid process, in order to inject the fluid, this is not only useless, for the reason just stated, but also dangerous, as Arnemann has ably demonstrated, in an express treatise, entitled "Remarks on the Perforation of the Mastoid Process, &c." (*Bemerkungen über die Durchbohrung des Processus Mastoideus in gewissen Fällen der Taubheit*. Gott. 1792.)

We must necessarily omit the rest of Dr. Kramer's very interesting remarks on this particular disease, and content ourselves with giving one of his cases.

"B. E., aged thirty-four, a man of a weakly constitution, slept, during the severe winter of 1829-30, in a cold damp room, where, in the evening, he often found his bed frozen quite hard. From these circumstances, he lost his hearing to such a degree, that he was obliged to give up his situation as servant. In the beginning of May he could no longer hear my watch when placed on his left ear, but he could when it touched the right one. Moreover, he was affected with so violent a tinnitus aurium, that he never had a sound night's rest. Both auditory passages were clear, but the membrana tympani on both sides was dim and opaque. Both Eustachian tubes were obstructed; but an injection (of lukewarm salt and water) made its way through the right one to the tympanum at the very first sitting, and washed out small clots of coagulated blood; after which the patient could hear my watch with his right ear at the distance of two feet. The injection did not penetrate the left Eustachian tube till the third sitting. After the fourth, the tinnitus aurium was entirely gone, and the patient could force the air as far as the tympanum on both sides, and hear the watch at a healthy distance. Two days after this fortunate result had been attained, he suddenly lost his hearing in the right ear, and this occurrence was accompanied by violent pain and a loud tinnitus in it; but these symptoms spontaneously disappeared in a few hours, and his hearing has ever since been perfect." (P. 70.)

When the Eustachian tube is contracted, the cure is to be attempted by dilating it with catgut bougies, the size of which is to be gradually increased; but Dr. Kramer's endeavours have always been fruitless when the stricture has been in that part of the tube which runs in the bony canal. In such cases the perforation of the tympanum is indicated, in order to give access to the atmosphere, and, by thus putting the tympanum on the stretch, to render it capable of transmitting the vibrations of sound to the ossicula auditûs. In spite of the theory, Dr. Kramer has never seen the operation beneficial. The indications for this operation are of rare

occurrence, for it is highly improper to perform it merely as a last resource against obstinate deafness.

The diagnosis of adhesion of the sides of the Eustachian tube is exceedingly difficult; as it depends on the operator being unable to find the entrance of the tube: it therefore depends on his consummate dexterity, for an ordinary person may easily fail in finding the aperture. The prognosis is of course unfavourable in the highest degree.

In the last division of his work, the affections of the inner ear, our author treats but of two diseases, irritative and torpid nervous deafness. The latter is to be distinguished from the former by the absence of tinnitus aurium. Although constitutional remedies are not to be neglected, and the health of the patient is of course to be brought into the best possible state; still, says our author, the nervous deafness itself can be cured only by local applications. Now, it is useless to drop remedies into the external passage, as the membrana tympani cuts off the communication with the cavity of the tympanum and the auditory nerve: they must, therefore, be introduced into the Eustachian tube. Gaseous injections alone can be borne; and our author, after experiments with a variety of substances, has found the diluted vapour of acetic ether best adapted to this purpose. He gives several cases in which this method was tried with great advantage; and we must confess it seems rational, as well as ingenious.

Such are the principal points in Dr. Kramer's work; yet we have reluctantly omitted details of considerable importance. In truth, this excellent little treatise is not capable of much abridgment; for to the characteristic merits of German books, depth and fidelity, it adds one which is rarely to be found in them—the most classical brevity.

On the Reflex Function of the Medulla Oblongata and Medulla Spinalis. By MARSHALL HALL, M.D., F.R.S. L. & E., &c. [From the *Philosophical Transactions.*]—London, 1833. 4to. pp. 31.

IN this paper Dr. Hall announces a discovery, which he thinks he has made, of a power resident in the medulla oblongata and spinal cord, not hitherto recognised by physiologists, and to whose action he applies the name of the *reflex function*.

As we shall have occasion to show, in the sequel of this article, that Dr. Hall has greatly misconstrued the opinions of other physiologists, we must be careful not to fall into the same sin ourselves; we shall therefore, at the risk of being

thought somewhat prolix in our extracts, introduce our author's general exposition of his subject in his own words.

After alluding to the experiments of some modern physiologists on the medulla oblongata and spinal cord, Dr. Hall gives the following account of the property to which he wishes to direct attention.

“ This property is characterized by being excited in its action, and *reflex* in its course; in every instance in which it is exerted, an impression made upon the extremities of certain nerves is conveyed to the medulla oblongata or the medulla spinalis, and is reflected along other nerves to parts adjacent to, or remote from, that which has received the impression. It is by this reflex character that the function to which I have alluded is to be distinguished from every other. There are, in the animal economy, four modes of muscular action, of muscular contraction. The *first* is that designated *voluntary*; volition, originating in the cerebrum, and spontaneous in its acts, extends its influence along the spinal marrow and the motor nerves, in a *direct line*, to the voluntary muscles. The *second* is that of *respiration*: like volition, the motive influence in respiration passes in a *direct line* from one point of the nervous system to certain muscles; but as voluntary motion seems to originate in the cerebrum, so the respiratory motions originate in the medulla oblongata. Like the voluntary motions, the motions of respiration are spontaneous; they continue at least, after the eighth pair of nerves has been divided. The *third* kind of muscular action in the animal economy is that termed *involuntary*: it depends upon the principle of irritability, and requires the *immediate* application of a stimulus to the nervo-muscular fibre itself. These three kinds of muscular motion are well known to physiologists; and I believe they are all which have been hitherto pointed out. There is, however, a *fourth*, which subsists, in part, after the voluntary and respiratory motions have ceased, by the removal of the cerebrum and medulla oblongata, and which is attached to the medulla spinalis, ceasing itself when this is removed, and leaving the irritability undiminished. In this kind of muscular motion, the motive influence does not originate in any central part of the nervous system, but at a distance from that centre; it is neither spontaneous in its action, nor direct in its course; it is, on the contrary, *excited* by the application of appropriate stimuli, which are not, however, applied immediately to the muscular or nervo-muscular fibre, but to certain membranous parts, whence the impression is carried to the medulla, *reflected*, and reconducted to the part impressed, or conducted to a part remote from it, in which muscular contraction is effected. The first three modes of muscular action are known only by actual movements or muscular contractions. But the reflex function exists as a continuous muscular action, as a power presiding over organs not actually in a state of motion, preserving in some, as the glottis, an open, in others, as

the sphincters, a closed form, and in the limbs, a due degree of equilibrium, or balanced muscular action,—a function, not, I think, hitherto recognised by physiologists. The three kinds of muscular motion hitherto known may be distinguished in another way. The muscles of voluntary motion and of respiration may be excited by stimulating the nerves which supply them, in any part of their course, whether at their source, as a part of the medulla oblongata or medulla spinalis, or exterior to the spinal canal: the muscles of involuntary motion are chiefly excited by the actual contact of stimuli. In the case of the reflex function alone, the muscles are excited by a stimulus acting mediately and indirectly in a curved and reflex course, along superficial subcutaneous or submucous nerves proceeding to the medulla, and muscular nerves proceeding from the medulla. The first three of these causes of muscular motion may act on detached limbs or muscles. The last requires the connexion with the medulla to be preserved entire.

“All the kinds of muscular motion may be unduly excited. But the reflex function is peculiar in being excitable into modes of action not previously subsisting in the animal economy, as in the cases of sneezing, coughing, vomiting, &c. The reflex function also admits of being permanently diminished or augmented, and of taking on some other morbid forms, of which I shall treat hereafter. I shall thus have occasion to speak of the reflex function as the source of equilibrium in the muscular system; as excitable into various actions, which, however familiar, are not constant; and as assuming morbid forms. Before I proceed to the detail of the experiments upon which this disquisition rests, it may be well to point out several instances in illustration of the various sources and modes of muscular action which have been enumerated. None can be more familiar than the act of swallowing, yet how complicated is this act! The apprehension of the food by the teeth, the tongue, &c., is voluntary, and cannot therefore take place in an animal from which the cerebrum is removed. The transition of the food over the glottis and along the middle and lower parts of the pharynx depends upon the reflex function; it can take place in animals from which the cerebrum has been removed, or the ninth pair of nerves divided; but it requires the connexion with the medulla oblongata to be preserved entire; and the actual contact of some substance which may act as a stimulus: it is attended by the accurate closure of the glottis, and by the contraction of the pharynx. The completion of the act of deglutition is dependent upon the stimulus immediately impressed upon the muscular fibres of the œsophagus, and is the result of excited irritability.

“The example which I have given is one of excited reflex function. The condition of the glottis during respiration, and that of the pharynx and of the sphincters, at all times, except during the acts of deglutition or of excretion, afford equally interesting and familiar examples of the permanent influence of that function. Whilst the nervous connexion between the larynx and the medulla

oblongata is preserved entire,—in the rabbit (*Lepus cuniculus*), for example,—the glottis is preserved open, being slightly dilated during each act of inspiration; but, if the superior laryngeal nerves be divided, the aperture immediately becomes so much diminished, that a state of excessive dyspnœa is induced. The sphincter ani, on the other hand, remains closed in the decapitated turtle (*Chelonia mydas*), if the lower part of the medulla spinalis be left in its canal; but it becomes immediately relaxed and open, if this part of the nervous system be withdrawn. The action of this muscle depends upon the medulla spinalis, and not upon the brain only.

“However plain these observations may have made the fact, that there is a function of the nervous and muscular system distinct from sensation, from the voluntary and respiratory motions, and from irritability, it is right, in every such inquiry as the present, that the statements and reasonings should be made with the experiment, as it were, actually before us. It has already been remarked, that the voluntary and respiratory motions are spontaneous acts, not necessarily requiring the agency of a stimulus. If, then, an animal can be placed in such circumstances that such motions will certainly not take place, the power of moving remaining, it may be concluded that volition, and the motive influence of respiration, are annihilated. Now, this is effected by removing the cerebrum and the medulla oblongata. These facts are fully proved by the experiments of Le Gallois and M. Florens, and by several which I proceed to detail, for the sake of the opportunity afforded by doing so of stating the argument most clearly. I divided the spinal marrow of a very lively snake (*Coluber natrix*,) between the second and third vertebræ. The movements of the animal were, immediately before, extremely vigorous and unintermitted. From the moment of the division of the spinal marrow, it lay perfectly tranquil and motionless, with the exception of occasional gaspings and slight movements of the head. It became quite obvious that this state of quiescence would continue indefinitely, were the animal secured from all external impressions. Being now stimulated, the body began to move with great activity, and continued to do so for a considerable time, each change of position or situation bringing some fresh part of the surface of the animal into contact with the table or other objects, and renewing the application of stimulus. At length the animal became again quiescent; and, being carefully protected from all external impressions, it moved no more, but died in the precise position and form which it had last assumed. It requires a little manœuvre to perform this experiment successfully: the motions of the animal must be watched, and slowly and cautiously arrested by opposing some soft substance, as a glove or cotton-wool; they are by this means gradually lulled into quiescence. If at this moment the figure last assumed be sketched upon paper, and the animal be left, protected from external impressions, it will be found to retain the same identical form when all vitality has ceased. The slightest touch with a

hard substance, the slightest stimulus, will, on the other hand, renew the movements of the animal in an active form. But that this phenomenon does not depend upon sensation is further fully proved by the facts, that the position last assumed, and the stimuli applied, may be such as would be attended by extreme or continued pain, if the sensibility were undestroyed: in one case, the animal remained partially suspended over the acute edge of the table; in others, the infliction of punctures, and the application of a lighted taper, did not prevent the animal, still possessed of active powers of motion, from passing into a state of complete and permanent quiescence. The same observations were made upon various other animals,—the turtle, the viper (*Vipera Berus*), the toad (*Bufo vulgaris*), the frog (*Rana temporaria*), the eft (*Triton cristatus*), &c. It may therefore be stated as a general fact, that if an animal be deprived of the cerebrum and medulla oblongata, and placed under an inverted bell-glass, or otherwise protected from external stimuli, it will not move, however easily it may be excited to motion by external impressions. I must now solicit the attention of the Society to three important points: It is obvious, 1st, that sensation can act, in inducing muscular motion, only through the medium of volition; 2dly, that, in the experiments which have been described, volition, the *will*, and not the *power*, to move, was annihilated; 3dly, that in such cases (volition being destroyed, and the agency of sensation excluded,) the influence of external impressions, which might be supposed to induce pain, must have been exerted upon some property of the nervous system different from sensibility.”

Dr. Hall admits that “many of the facts which depend upon the reflex function have long been known to physiologists,” but he maintains that “these facts only extend to the excited action of the reflex function seen in the limbs; and even they have been erroneously ascribed to sensation and volition, or instinct.”

Now, Dr. Hall has fallen into a very unaccountable error, in supposing that the three first kinds of muscular action which he enumerates, the *voluntary*, the *respiratory*, and the *involuntary from excited irritability*, are the only ones hitherto recognised by physiologists; for writers on this science have long been accustomed to refer a variety of phenomena, and among others muscular contraction, to what they have termed *nervous sympathy*, constituting a fourth source, different from any of the former; and which, as viewed by some authors whom we shall presently quote, appears to be, in *principle*, altogether similar to the *reflex function*.

We may cite the following passage from Haller, to prove that a cause of muscular action, not referable to the classes

called voluntary, involuntary, or respiratory, has been already very distinctly recognised.

“*Motus sympathici alii ex presente ad organum stimulo oriuntur; alii a stimuli in cerebro vestigio. Illius quidem generis exemplum est in colica nephritica, quando vomitus cietur occasione stimuli ad ureterem fixi. Eadem hic fiunt, quæ alibi in majoribus nervorum sollicitationibus, nempe convulsio a proprio nervo ad vicinos, et connexos nervos, et demum ad omnes, spargitur quando fortissima est. Nullum hic voluntatis vestigium, sed necessarius nervi a nervo irritati consensus.*” (*Element. Physiolog.*, lib. xi. sect. iii. § ix.)

We would ask whether the second set of muscular actions here alluded to by Haller are referred by him, or *could* be referred by any body, to the voluntary class, to the respiratory, or to the involuntary from excited irritability?

We know not, in fact, a single physiologist, from Willis, who first pointed out the nerves as the cause of sympathetic motion, to Alison, the ingenious expositor of Whytt's doctrine, who has failed to recognise *nervous sympathy* as a source of muscular action not dependent on volition, excited irritability, or the respiratory function. We maintain further, that the doctrine of nervous sympathy has, in the hands of certain physiologists, assumed a form altogether similar to the *reflex function* of Dr. Marshall Hall. We beg the attention of the reader to the following extract from Whytt's treatise on the Sympathy of the Nerves. This author, after enumerating a great variety of sympathetic sensations and motions, and demonstrating very satisfactorily that they cannot depend on the anastomosis of nerves, proceeds as follows:

“If, therefore, the various instances of sympathy cannot be accounted for from any union or anastomosis of the nerves in their way from the brain to the several organs, and if there are many remarkable instances of consent between parts whose nerves have no connexion at all, it follows that all sympathy must be referred to *the brain itself and spinal marrow*, the source of all the nerves. But, for a more direct proof of this, we may observe, that the consent of the several parts instantly ceases when their communication with the origin of the nerves is interrupted. Thus, though the muscular coat of the stomach, in an animal newly dead, is excited into contraction by irritation, yet the diaphragm is no way affected by this stimulus. In like manner, when any of the muscles of the leg of a frog are pricked, most of the muscles of the legs and thighs contract, *even after cutting off its head, if the spinal marrow be left entire*; but, when that

is destroyed, although the fibres of the stimulated muscle are affected with a weak tremulous motion, yet the neighbouring muscles remain wholly at rest. Farther, the effects of pain, and of fear and other passions, in preventing several sympathetic motions, seem to shew that the cause of that consent which obtains between the parts of animals is to be referred to the *origin of the nerves*; and, since certain affections of the mind, excited by the action of external objects on the organs of sense, produce extraordinary motions and other effects on the body, merely by affecting the brain, why may not impressions made on the nerves in other parts produce likewise, through the intervention of the brain, various motions and other effects in distant parts of the body? The analogy is obvious. Lastly, notwithstanding the many sympathetic motions which are daily observed by physicians to arise from an irritation of the nerves in different parts of the body, yet, when the nerve going to any muscle is irritated, there is no motion excited in any part, except in the muscle to which it is distributed. Does it not hence appear highly probable, that the various sympathetic motions of animals produced by irritation, whether in a sound or morbid state, are owing not to any union or connexion of their nerves, but to particular sensations excited in certain organs, and thence communicated to the brain or spinal marrow?" (*Works*, p. 510, Edin. 1768.)

Whytt maintained that, in all these instances of sympathetic motion, a certain sensation is excited, in consequence of which a motory impulse is communicated to the muscle; and there is no doubt that, in the greater part, there is a very manifest sensation, whether this be regarded as the cause of the motion or not: but it is very evident that Whytt did not consider the process as necessarily connected with sensation, and consequent volition, in the ordinary acceptance of these terms; because he distinctly states, that in many cases both the sensation and the exertion of the mind in producing the sympathetic motion are *unattended with consciousness*; and the whole of the eleventh section of his treatise on the Vital and Involuntary Motions is occupied in shewing how an action which appears to be, and is involuntary, may nevertheless be the result of an obscure and transitory impression on the mind. In this opinion Whytt has been recently supported by Professor Alison, (*Ed. Medico-Chirurg. Transact.*, vol. ii.) who, grounding his analogy on the indisputable fact, that by far the greater number of such sympathetic motions are actually accompanied with sensation, argues that in all cases a sensation is excited in the

mind, although it be in many too transient to awaken the consciousness of the individual: he adds, however, that we have no means of judging "whether it is, strictly speaking, from mental sensations that the different sympathetic phenomena proceed, or whether they are more properly the result of those physical changes in the nervous matter which immediately precede and cause the sensations, and which are known to us only through them."

This question of sensations mooted by Whytt evidently appertains rather to metaphysics than to physiology, and hinges, in a great measure, on the precise meaning attached to the word *sensation*. It is moreover a question which, being alike removed from the sphere of consciousness and of experiment, is not very likely ever to be settled, and is hence of little importance to the practical physiologist.

Let us see wherein Whytt and Dr. Hall agree, and wherein they differ. They agree that an impression made on the extremity of one nerve is propagated to the origin of that nerve, and thence reflected in the course of another nerve to a muscle, where it occasions contraction; which contraction the individual can neither excite nor prevent by an effort of his will. They differ in this: Whytt thinks that there is, in the process alluded to, an intervention of the mind, which intervention, since it is unattended with consciousness, he cannot prove. Dr. Hall denies such intervention, but nevertheless cannot demonstrate that it does not take place. Dr. Hall, then, is surely not justified in imputing ignorance of the *reflex function* to Whytt, who was as well acquainted with the fact of its existence as himself, merely because that author attempted the solution of the phenomena by a metaphysical hypothesis, which no man living can either prove or disprove. On the same principle, Whytt might be made out ignorant of the action of the heart, since he believed that this also took place by the intervention of the mind: he might be made out ignorant of every vital phenomenon dependent on nervous influence, for he ascribed them all to these *mental sensations*,—a doctrine which, we confess, is to us utterly unintelligible, but which has decidedly no relation to any one practical point in physiology.

With regard to the assertion that the phenomena of the reflex function have only been observed in the limbs, the reader has but to refer to the works of Whytt, and the paper of Dr. Alison already quoted, to be convinced of its inaccuracy.

We believe, then, we are justified in the conclusion that the reflex function of Dr. Hall differs in no essential point from

the nervous sympathy of Whytt and Alison, except in its restriction to the medulla oblongata and spinal cord, to the exclusion of the brain; which exclusion, however, as we shall presently show, is not warranted by facts.

Dr. Hall imputes, with infinitely greater justice, the same error to Legallois as to Whytt,—that of ascribing the motions resulting from the reflex function to volition; and there is no doubt that M. Legallois has, in one instance, actually fallen into this mistake. There is, in the works of this physiologist, so inexplicable a confusion in all that relates to voluntary motion, that one is almost inclined to suppose that he does not know the meaning of the word *voluntary*, since he tells us very distinctly in one place that the brain is the sole organ of the *will*,* and as distinctly in another place that *voluntary* motion may occur in a decapitated animal.† Verily the wisdom of this world is foolishness; for we have here a distinguished physiologist, after much laborious research, and flat self-contradiction, arriving at the conclusion that an animal can will after its head is cut off!—a conclusion which a plain man, who knew nothing about physiology, would at once pronounce to be ridiculous, and with much reason. We wish physiologists would take common sense along with them!

To return from this digression. Having shewn that there is nothing new or original in the *principle* of the reflex function, it is time to lay before the reader the experiments from which Dr. Hall deduces his various conclusions respecting it.

“The first experiment which I made was upon the turtle. This animal was decapitated in the manner usual with cooks, by means of a knife, which divided the second or third vertebra. The head being placed upon the table for observation, it was first remarked that the mouth opened and shut, and that the submaxillary integuments descended and ascended alternately from time to time, replacing the acts of respiration. I now touched the eye or eyelid with a probe. It was immediately closed: the other eye closed simultaneously. I then touched the nostril with the probe. The mouth was immediately opened widely, and the submaxillary membranes descended. This effect was especially induced on touching the nasal fringes situated just within the anterior part of the maxilla. I passed the probe up the trachea, and touched the larynx. This was immediately followed by a forcible convulsive contraction of the muscles annexed to it. Having made and repeated these observations, I gently withdrew the medulla and brain. All the phenomena ceased from that moment. The eye, the nostril, the larynx, were stimulated, but no movement followed.

* *Expériences sur le Principe de la Vie. Avant propos, p. 3.* † *Idem, p. 11.*
NO. III. D

“The next observations were made upon the other parts of the animal. The limbs, the tail, were stimulated by a pointed instrument, or a lighted taper. They were immediately moved with rapidity. The sphincter was perfectly circular and closed; it was contracted still more forcibly on the application of a stimulus. The limbs and the tail possessed a certain degree of firmness, or tone, recoiled on being drawn from their position, and moved with energy on the application of the stimulus. On withdrawing the spinal marrow gently out of its canal, all these phenomena ceased. The limbs were no longer obedient to stimuli, and became perfectly flaccid, having lost all their resilience. The sphincter lost its circular form and its contracted state, becoming lax, flaccid, and shapeless. The tail was flaccid, and unmoved on the application of stimuli.

“This experiment affords evidence of many important facts in physiology. It proves that the presence of the medulla oblongata and spinalis is necessary to the contractile function of the eyelids, the sub-maxillary texture, the larynx, the sphincters, the limbs, the tail, on the application of stimuli to the cutaneous surfaces or mucous membranes. It proves the reflex character of this property of the medulla oblongata and spinalis, and the dependence of these motions upon the reflex function. It proves that the tone of the limbs, and the contractile property of the sphincter, depend upon the same reflex function of the medulla spinalis, effects not hitherto suspected by physiologists. I must now state that the phenomena which have been detailed subsist in distinct portions of the divided nervous system. If, after severing the head of the turtle, the lower extremities and the tail be separated together, in the manner usual with cooks, the phenomena which I have described are still observed in the distinct and separate portions of the animal. The head, the anterior extremities, and the tail, present the movements which have been described, when severally stimulated. The posterior extremities alone were observed to be flaccid and unimpressible by stimuli; and these were found, on examination, to have been separated from their connexion with the spinal marrow. An interesting experiment demonstrates the powerful influence of the reflex function over the sphincter ani in the turtle. If, after the removal of the tail and the posterior extremities, with the rectum, and of course with a portion of the spinal marrow, water be forced into the intestine, by means of Read's syringe, both the cloaca and the bladder are fully distended before any part of the fluid escapes through the sphincter, which it then does on the use of much force only, and by jerks. The event is very different on withdrawing the spinal marrow: the sphincter being now relaxed, the water flows through it at once in an easy continuous stream, with the application of little force, and without inducing any distention, even of the cloaca. I was first struck with the phenomena of the reflex function of the spinal marrow in the separated tail of an eel. On being excited by the point of a needle passed lightly over its surface, it contracted and moved as if it still formed a part of an entire

animal. On another occasion, having removed the head of a frog, I divided the spine between the third and fourth vertebræ, and separated the upper portion of the animal from the lower. There were then the head, the anterior extremities, and the posterior extremities, with their corresponding portions of medulla, as three distinct parts of an animal. Each preserved the reflex function. On touching an eye, it was retracted, and the eyelids closed, whilst similar phenomena were observed simultaneously in the other eye. On removing the medulla, these phenomena ceased. On pinching the toe of one of the anterior extremities, the limb and the opposite limb equally moved. On removing the spinal marrow, these phenomena also ceased. Precisely similar effects were observed in regard to the posterior extremities. Similar phenomena are also observed in the snake. If the head be removed, and a pointed instrument, or a lighted taper, be brought into contact with any part of the surface, it is instantly moved. The motion consists in a flexion of the entire part, and in a concentric movement of the integuments towards the point irritated; so that the muscles situated along the spine, and certain muscles analogous to the panniculus carnosus, are excited to contraction. The extremity of the tail is most impressible. The function which presides over these movements subsisted in every part of the animal separated from the rest, but instantly ceased on removing the spinal marrow. On touching a point immediately within the teeth of the upper jaw, the larynx was suddenly drawn downwards and closed. These movements could also be excited by touching the nostrils. They ceased on removing the medulla oblongata. Similar phenomena are seen also in the very young of the mammalia. A rabbit, one day old, was immediately deprived of all voluntary or respiratory motion, with the exception of gaspings, by dividing the spinal marrow near the occiput. Yet the head and the limbs moved, on stimulating the ears or the feet. These movements ceased in a quarter of an hour, but were renewed by an artificial respiration. The phenomena were precisely similar after decapitation, hæmorrhage being prevented and artificial respiration maintained. All ceased on removing the medulla oblongata and spinalis. One of the most remarkable of the phenomena attached to the reflex function in animals, is that presented by those muscles of the hedgehog (*Erinaceus Europæus*) by means of which that animal assumes, in certain circumstances, the form and firmness of a ball. The reflex function seems especially to connect the roots of the spines with the muscles. If the animal be examined under the influence of hibernation, the reflex function continues for some hours after the brain is removed; the panniculus carnosus, the limbs, the tail, the larynx, the sphincter ani, remain excitable, and retain a degree of tone. These phenomena cease on removing the medulla spinalis. The phenomena of the reflex function seen in the panniculus carnosus, and in other muscles of the hedgehog, are also particularly

displayed in the very young animal, in which the peculiar movements of this creature are excitable for a considerable time after decapitation, or the division of the spinal marrow, and long after the cessation of the voluntary and respiratory motions, when it is in a languid and dying state. In the case of the decapitated young hedgehog, after all gasping had ceased, motions of the larynx are still excited on irritating the nostrils, or on irritating the medulla itself; just as the peculiar motions of the trunk are excited on irritating the limbs, tail, or spines, or the spinal marrow."

Dr. Hall corroborates these experiments by a reference to some cases of anencephalous children, which afford the same data for reasoning, with the great advantage of the absence of all mutilation; a circumstance which throws infinite uncertainty over most experiments of this kind on living animals. We hold one anencephalous child to be worth at least a thousand decapitated frogs or dogs. The cases instanced by Dr. Hall have already attracted much and deserved attention from physiologists; we need not therefore detail them here.

Now, on reviewing all these experiments, the first question that suggests itself is, on which of them does Dr. Hall ground his restriction of the reflex function to the medulla oblongata and spinal marrow? The experiments unquestionably shew that the said function *does* exist in these parts: but where is the proof that it *does not* exist in the brain?

The only experiments which can be conceived to bear in any degree upon the question are those made on the eyes of the turtle and the frog. Whether it be from these that our author draws his conclusions or not, we cannot tell; but we presume so, because none of the others could even be supposed to have any relation to the matter. We must then remark of the first of these two experiments, that, as the brain and medulla oblongata were both removed at the same time, it cannot prove anything with reference to the brain exclusively; to say nothing of the fact, that the anatomy of the nerves distributed to the appendages of the eye in this class of animals is not sufficiently known to enable us to say with precision, from what source they are derived; and it is evident that the only nerves through which the reflex power of the brain can be brought to the test are those which are known to be *cerebral* nerves.* The latter objection applies

* Thus, if the muscles which close the eyelids be supplied, as the *orbicularis* in man, by the *portio dura*, this is a very improper nerve through which to illustrate any function of the brain; since, though it be nominally a cerebral nerve, there is every reason to believe that it is intimately connected, both in its origin and function, with the respiratory nerves; and its function will therefore be necessarily destroyed by the removal of the medulla oblongata.

with equal force to the experiment on the head of the frog; the nerves which supply the eyelids, and the mechanism by which the apparent retraction of the eye is effected, having not hitherto, as far as we know, attracted the particular attention of anatomists. It is to be observed also, that, although the effect of withdrawing the medulla was obvious, the effect of withdrawing the brain, and leaving the medulla *in situ*, was not tried. If it were only on this ground, therefore, the experiment is inconclusive. But the truth is, that, from the close connexion of the medulla oblongata with the base of the brain, it is nearly impossible to draw any conclusion with regard to the respective functions of these parts from experiments in which one of them is withdrawn. A function which is in reality exercised by the brain may, nevertheless, be annihilated by the removal of the medulla, and *vice versâ*. It is, however, unnecessary to have recourse to experiments of a kind which at best are liable to numerous fallacies, for the solution of a question which daily observation sufficiently elucidates. It is very plain that the reflex function *does* exist in the brain. When, for example, the pupil contracts in consequence of the impression of light on the retina, we have every condition of the reflex function. An impression made on the optic nerve is reflected along the nerves of the iris to the latter organ, where it occasions a contraction which is independent of the will; and the brain must here be the reflecting centre, because all the nerves concerned in the process are cerebral nerves. The impression of light, also, on the retina of one eye, affects sympathetically the iris of the other, as we often observe in those cases where only one eye is affected with amaurosis. It will not, we presume, be objected to this example, that it is doubtful whether the iris be *muscular* or not, because this question may now be considered as nearly settled in the affirmative;* and whether it be so or not, does not in reality affect the question of the reflex power exercised by the brain.

If, however, this objection should be made, we will adduce another example, which is free from it, and will answer our purpose as well. It is a familiar fact, that when the supra-orbital nerve is irritated, as by neuralgia, or any other cause, the adjacent muscles are affected with spasms, which spasms cease on the division of the nerve. Now, if this be not an instance of reflex action in the brain, what is it?

Other examples might be adduced, but, as these are less unequivocal, we pass them over. If it be not easy to multi-

* Vide Bostock's Physiology, vol. i. p. 182.

ply instances of the reflex power of the brain, it is because comparatively few muscles are supplied by cerebral nerves.

Our author's conclusions with respect to the glottis and the sphincter muscle are evidently premature: analogy may render it not improbable that the action of these parts is influenced by the reflex function of those portions of the nervous mass from which they respectively derive their nerves; but the logical deduction from the experiments is merely that the action of the glottis is dependent on some function of the medulla oblongata, and that of the sphincter on some function of the spinal marrow.

The same remark applies to the conclusion with respect to the panniculus carnosus.

The facts relating to the integrity of the reflex function in the several insulated portions of the nervous mass which fill the spinal canal are new and interesting, and they appear to us to constitute the only *discovery* contained in this paper. It is to be observed, however, that the inference is hitherto valid only with respect to cold-blooded animals.

The view taken by Dr. Hall of the reflex function as the cause of the tone and equilibrium of the muscles, is ingenious and worthy of attention: still, however, it is only an hypothesis; and we think that the *equilibrium* of the muscles may be much better explained on the doctrine of the *muscular sense*. With reference to their *tone*, one explanation is nearly as good as another, because the very existence of this property is hypothetical.

We have not space to follow our author in the various applications which he makes of the reflex function to the illustration of several morbid phenomena; but, if the reader will refer to them, we think he will consider us justified in affirming, that some of them are hypothetical, and that others have been repeatedly made by former writers, and are indeed generally familiar to pathologists.

In considering the reflex function, especially with reference to disease, it would be interesting to inquire how far it may be exercised by the ganglia of the great sympathetic nerve; but we have not at present time for the investigation, which would also be rendered difficult by our imperfect knowledge of the functions and real connexions of this remarkable nerve. Dr. Copland, in the learned and excellent notes appended to his translation of Richerand's *Physiology*, divides nervous sympathies into "the *reflex*, and the *direct*: the former arising through the instrumentality of the sensorium, the latter taking place independently of it, through the means of the ganglial nerves, and chiefly of those which are

distributed to the blood-vessels, and which form communicating chords between the viscera." (P. 546.) It is possible, however, as hinted above, that one of the uses of the ganglia may be to act as reflecting centres, by which stimuli applied to the extremity of one nerve are propagated to those of others; in which case, the term *reflex* may be applicable also to the sympathetic actions of the ganglionic system.

In concluding our review of Dr. Hall's paper, we feel ourselves bound to state, that, although it contains some ingenious reasoning, and is well worthy of perusal, [we never read anything of our author's that was not,] its claims to originality appear to us to be exceedingly small.

Elements of Materia Medica and Therapeutics; including the recent Discoveries and Analyses of Medicines. By ANTHONY TODD THOMSON, M.D. Vol. II.—London, 1833. 8vo. pp. 694.

DR. A. T. THOMSON is well known to our readers as the author of a Dispensary which is in everybody's hands, and which unquestionably entitles him to rank as our best writer on the *Materia Medica*. In the present work (of which only the second volume is before us,) the articles are not arranged alphabetically, as in the Dispensary, but in classes, whose limits are marked out by their therapeutic power, as the Emetics, the Cathartics, &c. The general mode of action of each class is illustrated by pretty copious remarks; and, moreover, our author has not confined himself so strictly, as in his former work, to the substances enumerated in the three British Pharmacopœias.

Everything on the *Materia Medica* which proceeds from Dr. Thomson must have some merit, and our readers will thank us therefore for a notice of the "Elements," confined chiefly to such points as we believe are not touched upon in the "Dispensary." The following extracts from the chapter on Astringents are not without interest:

"As an astringent, the Sloe was employed in the time of Dioscorides, and is still used as a domestic remedy, although it has been rejected from the Pharmacopœias. It has one advantage over many other substances in this class of remedies: it exerts no stimulant influence, and therefore may be administered even when inflammatory symptoms exist. It has been recommended in diarrhœas, especially in those of a chronic character, such as are often brought on in India: in hæmorrhages, and as a topical astringent in enlargements of the tonsils and relaxation of the uvula. It was formerly administered as a conserve; but the inspissated juice of the unripe fruit, or a tincture in proof spirit, is preferable. The inspissated hardened juice may be given in powder, in doses of from eight grains to a scruple, three or four times a day." (P. 34.)

“*Ruspini's Styptic*, one of those medicines which are known by the name of Patent, the preparation of which is kept secret, and which are often little more than frauds of designing knaves on the credulity of the public, owes its powers to gallic acid. Whilst we may declaim against the principle which has withheld the formula from the public, we cannot deny the value of the preparation as a powerful astringent. I have not witnessed its influence as an internal or general astringent; but I have frequently witnessed its power in checking the most obstinate bleedings from leech-bites in children, after all other things had failed. This styptic consists of gallic acid, a small proportion of sulphate of zinc and of opium, dissolved in a mixture of alcohol and rose-water. In proof of this, the same re-agents which affect Ruspini's styptic, affect, in the same manner, a simple solution of gallic acid in alcohol. It yields a brownish-green precipitate with lime-water, which is re-dissolved by an excess of the lime-water, and acquires a reddish hue: and it strikes a beautiful deep blue with the mixed sulphates of iron. As the quantity of sulphate of zinc and of opium is too small to influence the medicine, a simple solution of gallic acid in diluted alcohol will answer all the purposes of this celebrated and expensive styptic.” (P. 47.)

We are surprised that our author should have been obliged to have recourse to this styptic *frequently* in the cases of leech-bites, as the bleeding, if it does not yield to cold water, can almost always be stopped by a minute portion of sponge fastened upon the wound with sticking-plaster.

In administering the acetate of lead, Dr. Thomson insists on the advantage to be derived from giving vinegar at the same time; for the carbonate is the only salt of lead which is directly poisonous, and the vinegar prevents the decomposition of the acetate in the intestines. He also refers to Mr. Laidlaw's experiments, to which we directed the attention of our readers on a former occasion. (Vol. i. page 120.) We cannot quit the subject of lead without reminding them of the masterly researches of Dr. Christison, detailed in his work on Poisons, page 385 et seq.

The following observations are characterized by the good sense which pervades our author's practice.

“In hæmorrhoids, the propriety of employing astringents depends altogether on the remote causes of the disease. The most common of these is a confined state of bowels; thence purgatives, or rather laxatives, are indicated; when there is heat, hardness, and much pain, leeches should be applied; but after these symptoms are removed, or where they are not present, when the piles are large and the bleeding excessive, then astringents should be employed. A pint of cold water thrown into the rectum every morning, by means of a gum elastic bag, an ointment composed of powdered gall nuts, or of kino or catechu and lard, or solutions of the metallic salts,

Such as sulphate of zinc in solution of alum, may be administered. When hæmorrhage proceeds from a ruptured vessel high up in the rectum or in the colon, the stomach-pump should be used, either to throw in cold water, or infusions of the astringent vegetable bodies, or solutions of the saline astringents. Whatever be the nature of the astringent solution or infusion, the quantity should not be such as to irritate by distention, or to cause too rapid an evacuation of the injected fluid. Accompanying this state of the hæmorrhoidal vessels, we not unfrequently find prolapsus ani, or falling down of the fundament. This also occurs occasionally in children and in old people, from mere debility, on the slightest effort to relieve the intestines of their contents. The return of the gut in this state is easily affected; but it is only by bracing and invigorating the loose and relaxed membrane that we can expect it to remain in its proper place. This is best accomplished by astringent injections; and nothing is so well adapted for these as the infusion of the pomegranate-bark, or that of balaustines.

“Hæmaturia, or bleeding from the bladder, is generally depending upon some organic affection of the urinary organs; but, in attending to the primary disease, much immediate advantage is derived from the use of astringents. It was in a case of this kind that Mr. Brodie administered Ruspini's styptic with so much seeming advantage; and I have seen great benefit, in similar cases, from the use of uva ursi, which appears to pass unaltered through the kidneys. Since the discovery which I have made of the composition of Ruspini's styptic, I am disposed to propose a combination of gallic acid with an infusion of the leaves of uva ursi, obtained by rubbing them in cold water.” (P. 86.)

The difference between precept and practice has often been exemplified: take another instance. “An amusing fact, connected with the opposition to the general use of tobacco, is related of Fagou, physician to Louis XIV. In the midst of an oration on its pernicious effects, the orator made a pause, and, taking his snuff-box from his pocket, refreshed himself with a pinch, to enable him to renew his argument.” (P. 120.)

Our author's remarks on the inhalation of chlorine will be read by many with advantage.

“*Chlorine.* This gas is of very late introduction as an expectorant and excitant of the diseased mucous membrane of the lungs.

“Chlorine gas is rapidly absorbed by water; and in this form it may be preserved for extricating the gas for expectorant purposes; but it must be kept in a blackened bottle, as the water is slowly decomposed, and chloric and muriatic acids are formed. Its goodness is known by mixing the solution with a little tincture of litmus: if the solution be good, the colour of the litmus will be totally destroyed; if it contain chloric or muriatic acid, the litmus will be reddened.

“Chlorine, if attempted to be breathed in its undiluted state, does not enter the lungs, but produces a powerful spasm of the glottis; and, if not immediately relieved, the person dies of suffocation. When diluted with a moderate portion of air, it excites violent coughing, irritation in the bronchial cells, great dyspnoea, and a painful, anxious sensation in the chest, which continues for several days. Yet, when largely diluted, this gas is the best topical expectorant and the most salutary excitant to the mucous membrane of the lungs that has yet been inhaled. I have witnessed its beneficial effects in spasmodic cough and in asthma; and I have seen much benefit result from its cautious employment even in phthisis pulmonalis.

“This gas, in its highly diluted state, was first proposed to be employed as a pneumatic remedy and an expectorant by Dr. Favart, of Marseilles, in 1804. His explanation of its action is, ‘that by irritating in a peculiar manner the mucous membrane, it draws towards that membrane the matter gorging the pulmonary parenchyma; and, thus rendering it susceptible of evacuation, it relieves the lungs in severe catarrh.’ It is unnecessary to comment on the improbability of this hypothesis. Soon after this period, I had an accidental opportunity of witnessing its beneficial influence in a severe case of epidemic catarrh, in which it was extricated as a fumigation to check infection; but it was not employed either on the continent, or in this country, by more than one or two physicians, until lately, when a report of Dr. Cottreau, to the Faculty of Medicine of Paris, again brought it before the profession.

“Several trading chemists, and in particular a M. Gannal, had remarked that phthisical persons, who engage themselves to work in the manufactories of bleaching liquor, and other processes, in which chlorine is extricated, are gradually but evidently improved in health; and, to confirm his observations, he constructed an instrument for inhaling it, and actually administered it as a remedy in phthisis. The success of the experiment surprised M. Gannal; but, not being a medical man, he mentioned his views to Dr. Cottreau, who pursued the same plans as M. Gannal, and with a degree of success sufficient to merit the attention of the profession. As far as my own experience enables me to offer an opinion, chlorine will form a most valuable auxiliary in the treatment of chronic catarrh, humoral asthma, and even phthisis. In the two former diseases, I have relieved several individuals by its means; and, in all the cases of phthisis in which I have employed it, the benefit has been sufficient to encourage the most sanguine expectations of success; but none of the cases have been cured.

“For the purposes of inhaling, chlorine should be extricated from the saturated aqueous solution of the gas, by putting $f\bar{3}i$ or $f\bar{3}ii$ of it into a tubulated bottle, containing about $f\bar{3}ii$ of hot water, and placed either in a bason of hot water or over a small lamp, in order to extricate the chlorine from its aqueous solvent. The patient should inhale this quantity at one time, and the dose should

be repeated once, at least, every six hours, so as to maintain the effect produced on the mucous membrane.

“When thus cautiously inhaled, the evident effect of chlorine, is, at first, a slight sense of constriction in the trachea and some increase of cough: in a few instances, a degree of vertigo has been experienced and a tightness across the chest; but these feelings rapidly subside, expectoration is produced almost without any effort, and the patient feels generally more comfortable than before inhaling the gas. In those cases of asthma, in which I have seen the chlorine used, the relief is peculiarly striking; and even in phthisis, the symptoms of hectic have much abated during its employment; so that in cases in which a fatal termination of the disease has occurred, the chlorine may be said to have ‘scattered flowers on the borders of the grave.’ Its operations can only be explained on its stimulant power, producing a new action in the morbid organ; which, if it could be maintained sufficiently long, might assuredly overcome the diseased action; and by the assistance of other means calculated to support the tone of the habit, without exciting fever, the disease might be cured. In cases where large vomicae exist, it is in vain to expect a cure from any means; but when we consider the powerful influence of chlorine in checking putrefaction and in promoting the cure of external ulceration, it is not, in my opinion, a vain speculation to expect advantage in ulcerated lungs from this mode of employing chlorine.

“Like every other powerful gaseous excitant, chlorine, when inhaled without being sufficiently diluted, produces a severe sense of strangulation, a violent irritating cough; and individuals have fallen down in a state of complete syncope who have suddenly taken a large draught of it. These effects, however, are only temporary; and few instances have occurred in which inflammation of the lungs and air-tubes have supervened. Indeed to no other gas does the system so soon accommodate itself; the workmen in chemical manufactories breathe it daily with impunity.* The best method of overcoming its deleterious effects is to inhale the vapour of ammonia diluted with water or to inhale ether; or, if neither of these substances be at hand, to hold the head over a bason of boiling water, so as to breathe the warm vapour.” (P. 149.)

In the note at p. 156, Dr. Thomson says, “It is pleasing to trace the origin of popular customs: that of smoking is unknown; but all the Scythian nations employed certain herbs, which they threw into the fire, and the ascending smoke of which the company seated round the fire collected, causing them to dance and sing.” In a note upon this note, we are referred to Herodotus, lib. i. § 36, as the authority; but, on turning to the book and chapter, as directed, we

* “Mr. Tenant, one of the greatest manufacturers of bleaching liquor, has informed me that men affected with chronic cough, who apply to him for work, invariably lose their coughs when they are cautiously brought into the gas-house.”

found, without much surprise, that there was not a word about the matter there. We say without much surprise, for our author, though excellent in other points, is by no means happy in quotations and references. Thus, at page 302 we find "Ideoque, (says Celsus,) omnibus catharticus alöe miscenda est." Now, without stopping to scold the doctor for *catharticus*, we must mention that Milligan's Index (a most capital one,) gives no hint of such a passage. At page 242, *note*, we have a bit of Boerhaave so cruelly defaced, that it is difficult to transcribe it, without correcting some of the errors: "Oportet quidam, hic monere quod leniara emetica nil agunt in Ascite, sed fortiera ex brevibus intervallis repetita palmam reliquis præripiant. Boerhaave, in *Pract. Med. Ars.*, art. *Hydrops*." These, and a myriad of other slips of the pen and of the press, would be of small importance, were the work destined only for the man of education; but a book of the kind is consulted by the raw beginner, who is naturally misled by errors which bear the professorial stamp.

There has always been much diversity of opinion as to the plant which yields gum ammoniacum. "Willdenow, who had raised an *Heracleum* from seeds picked from ammoniacum, was induced to regard it as a species of that genus, and named it *Heracleum gummiferum*; Sprengel asserted that it was the *Ferula ferugala* of Defontaines; Olivier, that it was the *Ferula Persica*; whilst others contend [contended] that the plant was the *Bubon gummiferum* of Linnæus: in one point only all agreed, viz. that ammoniacum is the product of an umbelliferous plant." (P. 163.) It seems, however, that all these learned persons were in the wrong, and that this long-established expectorant is derived from a newly-discovered plant, which has been named by Mr. Don, *Dorema Ammoniacum*. Mr. Don says, too, "that the plant which affords Galbanum is not the *Bubon Galbanum* of Linnæus, but one which appears to constitute a new genus allied to *Siler*, but differing from it in the absence of dorsal resiniferous canals, and the commissure being furnished with only two. He proposes to call the plant *Galbanum Officinale*." (P. 165.)

Our author asserts, and he is quite orthodox in his assertion, that "emetics ought not to be administered to those afflicted with *hernia*," (p. 197;) but we have strong doubts of the universal, or even general force of the objection: one sixth or one eighth of his Majesty's subjects ought not to be deprived of the benefits flowing from this strangely neglected class of remedies, when a little extra pressure on the abdominal parietes will assuredly guarantee their safety. Indeed, the hand of the patient, which in such cases is often instinc-

tively applied, is an excellent temporary truss. Do not the ruptured go to sea?

Our author, at p. 205, quotes the testimony of Dr. Young in favour of the use of emetics in phthisis, and such is the carelessness with which modern works are put together, that the same quotation occurs again at p. 238. Dr. Thomson mentions the influence of emetics in relieving gastric amaurosis, but has omitted to notice their unrivalled power of relieving many forms of dyspepsia. It often happens, for instance, that among the Protean symptoms attending that shapeless monster, dyspepsia, we find a rising of bile in the mouth: in such a case, an emetic stands alone in efficacy; and, if there are many diseases which are justly termed the *opprobria medicinæ*, a case of *dyspepsia biliosa*, instantaneously relieved by an emetic, may be considered as a splendid triumph of the healing art.

Nor are we quite sure that in fevers it is necessary so rigorously to limit the use of emetics to the commencement of the attack. Take the following case, for example, which we find among our notes. "June 29th, 1833. Mrs. J., ætat. twenty-four, was attacked with influenza three weeks ago; since which time she has suffered from nausea, want of appetite, and general pains: tongue white, pulse rapid.—R. P. Scammon. c. ℥j.; Antimon. Tart. gr. j. M. ut ft. pulv. statim sumend.—Half-past eight, P.M. The powder has produced two stools, and frequent vomiting. The quantity of bile brought up is enormous. The patient feels quite comfortable.—June 30th. Her bowels have been open; she has perspired freely, and has slept well; the appetite has returned, there is no nausea, and she feels 'quite charming.' Cured." Had this case been treated by a calomelarian, it certainly would not have been cured in twenty-four hours; and, had some ingenious person found out that Mrs. J. was labouring under "chronic gastritis," and applied his leeches, and administered his *eau gommée*, she might have been under treatment at this very hour.

It is so difficult to know under what head many medicines should be classed, that we do not find fault with Dr. Thomson for placing copaiba among the cathartics, though it is rarely administered as a purgative; and our readers will certainly be gratified by some of our author's observations on this remedy.

"The action of re-agents enables us to ascertain the purity of copaiba. The simplest mode is to boil any given quantity of the balsam in water to dryness; if the copaiba be pure, a hard, brittle resin will remain; thence the consistency of this residue determines

the purity of the specimen. Another simple method is to mix two parts of copaiba with one part of an alkaline solution, consisting of three fourths of carbonate of potassa and one of pure potassa: if the copaiba be pure, after some hours the mixture divides into two parts: but if the balsam is adulterated with one eighth of castor oil, the whole will remain as a gelatinous mass. If four parts of copaiba and one of carbonate of magnesia be rubbed together and left at rest, it will assume an appearance not unlike solution of gum acacia, if the copaiba be pure; but it will be opaque, if the copaiba be adulterated with oil. There are other tests; but these are sufficient to determine the purity of this substance.

“Copaiba is either a simple stimulant or a purgative, in proportion to the extent of the dose. In doses of ʒj, rubbed into an emulsion with mucilage of gum, it operates kindly on the intestinal canal, and affords great relief of hæmorrhoidal affections; both evacuating the contents of the rectum and allaying the irritability of the inflamed surface, by lessening the determination of blood to the part. This effect may probably be in part owing to the determination which it induces to the kidneys, therefore operating as a counter-irritant. There are various methods of administering the remedy: among others, by spreading a pound of copaiba on a dish and sprinkling over it an ounce of calcined magnesia, then mixing it intimately, and exposing the mixture to the air for fifteen or twenty days, it acquires a consistence fit for making pills, which possess the same efficacy as the pure copaiba. The essential oil procured by distillation has the same properties as the copaiba; but the resin is inert.

“When the copaiba or the oil is moderately overdosed, it sets up fever in the system, accompanied with headach, thirst, great heat in the bowels, and a sensation of burning in the urethra while passing the urine; and the kidneys are so much stimulated that bloody urine is secreted. But, like some other oleo-resins, these symptoms do not occur when the dose is so large as to operate at once upon the bowels. A French officer at Valladolid, in 1808, took two ounces of copaiba for a dose; it operated as a drastic cathartic, and cured a gonorrhœa, under which he was labouring, without causing much inconvenience.*” (P. 284.)

A little farther on we find a notice of *Jalapine*.

“Mr. Hume, an intelligent chemist in Long Acre, obtained a substance from jalap by an operose process; and, regarding it as the active principle of jalap, he named it *Jalapine*. Only five grains are obtained from an ounce of the root: it has neither taste nor odour; is scarcely soluble in either cold or hot water; and completely insoluble in ether. No therapeutical trials have been made with this substance; but, from the result of M. Pelletier's experiments with the sulphate of jalapine, sent to him by Mr.

* “Revue Médicale, tome ix., p. 10.”

Hume, I am not disposed to regard it as the active principle of jalap." (P. 290, *note.*)

We recollect that several trials were made with jalapine at St. George's Hospital, by that excellent physician, the late Dr. George Pearson; but it certainly was by no means active.

We positively must mention another instance of our author's carelessness; it is really too bad. At page 337, after the words *Gratiola Officinalis*, occur the symbols L.E.D., importing that the plant is in the three British Pharmacopœias; yet in the next page we are told "Gratiola is not contained in the list of the materia medica of the London college."

Our author asserts that elaterium seldom acts well in doses of less than a grain: we have seen a quarter of that quantity, however, purge most violently.

His method of treating tetanus we will give in his own words:

"I cannot avoid taking this opportunity of making public my experience of the powerful influence of cupping along the spine, in relieving the spasmodic rigidity of the muscles in tetanus, in conjunction with the exhibition of cathartic glysters, as long as the jaw remains fixed; and purgatives, combined with opium, on the first moment that any relaxation of the spasm permits their introduction into the stomach. I have had an opportunity of witnessing the successful effects of this plan of treatment in two cases; one of which was a case of traumatic tetanus. Blood was drawn from the cervical portion only of the spine; but dry cupping was employed throughout the whole length of the spine three times a day. The patient informed me that each time the cups were applied, the acute pain under the apex of the sternum was always relieved, and did not return for sometime afterwards." (P. 372, *note.*)

While discussing the therapeutic operation of cathartics, Dr. Thomson also mentions another remarkable instance of their value:

"An interesting case is detailed by Dr. Bostock, in the seventh volume of the Medical Gazette, of a boy having been cured of stammering by purgatives. Dr. Bostock thinks that stammering often depends on a state of certain muscles, resembling that condition of all the muscles in chorea, and which may be termed local chorea. The alvine discharges were offensive and dark-coloured." (P. 374.)

One only of Dr. Lugol's formulæ for the internal administration of iodine is given in the work before us; but, as Dr. Lugol's methods seem to have both theory and practice in their favour, we make no apology for quoting three.

Ioduretted Mineral Water.

	NO. I.	NO. II.	NO. III.
R. Iodines	gr. $\frac{3}{4}$	gr. j.	gr. $j\frac{1}{4}$.
Potass. Hydriod.	gr. jss.	gr. ij.	gr. ijss.
Aq. distill. . . .	ζ viiij.	ζ viiij.	ζ viiij.

Lugol's formulæ are evidently intended to be swallowed as they are, and not further diluted, as Dr. Thomson directs, (p. 394;) their mildness, and the possibility of continuing their use for many weeks, depend of course on their being already very weak.

Our author ventures to affirm, that the *Mist. Ferri comp.* is the most injudicious of the preparations of iron.

"It is intended to produce in this preparation a carbonate of iron, suspended in the mixture by the gummy matter of the myrrh: but if the bottle containing it be not quite full and be not kept completely closed, oxygen is rapidly attracted from the air, and the carbonate is as rapidly transmuted into the insoluble and consequently inert peroxide of iron. This is readily demonstrated by the change of colour which takes place in the mixture when exposed to the air. When made at the time it is to be used, however, this mixture is an excellent tonic emmenagogue in doses of $f\zeta$ iss, given twice or three times a day. The quantity of the protosulphate proper to mix with $f\zeta$ iss of the mixture of myrrh and carbonate of potassa is four grains. Its influence is perceived by the rapid change which it induces on the alvine and renal evacuations; the black colour of the former, and the blue streak when the latter is tested with ferrocyanate of potassa, demonstrating that the chalybeate has entered the circulation." (P. 464.)

Now, we rather agree with the author of the "*London Dispensatory*," who says, "This mixture, which is nearly the same as the celebrated antihectic mixture of Dr. Griffith, is an useful tonic in all cases in which preparations of iron are indicated," &c. (*4th edition*, p. 876.)

In speaking of *digitalis* as an emmenagogue, Dr. Thomson says,

"The influence of foxglove on the generative organs is undoubted. In men, it causes erections and pollutions; in women, it produces symptoms very closely resembling those which indicate the approach of menstruation; and one of the effects of an overdose is inflammation of the genital organs in both sexes. Had foxglove not been employed as an emmenagogue, these facts would be sufficient to authorize its administration for awakening the energy of the uterus. I have long been in the habit of ordering it in doses of from gr. i. to gr. iii. combined with calomel, and followed by an aloetic cathartic on the following morning, with almost unvarying success, in suppression of the catamenia. It is scarcely necessary

to say that its use need not be continued many days after the period of the monthly change, and that it is productive of the greatest benefit when it is given, for two or three successive days, anterior to the time when the change should occur. The tincture, for reasons formerly stated, is the best form of administering the medicine." (P. 465.)

It is remarkable that these facts have escaped the notice of Dr. Christison, who merely observes, that "From an extensive series of experiments on animals by Orfila with the powder, extract, and tincture of the leaves, foxglove appears to cause, in moderate doses, vomiting, giddiness, languor, and death in twenty-four hours, without any other symptom of note; but, in larger doses, it likewise produces tremors, convulsions, stupor, and coma. It acts energetically both when applied to a wound, and when injected into a vein." (*A Treatise on Poisons*, p. 633.) It is to the experiments of the Leipsic Society, we believe, that we owe the first account of its stimulant properties, for it was formerly called a *direct* sedative; as, for example, by our author. (*Dispensatory*, 4th edit., p. 321.) Dr. Jörg, the reporter of the Experimental Society, observes, "Es wirkt das Mittel primär erregend auf das Gehirn, auf den Darmcanal, auf die uropoëtischen, und auf die Geschlechtswerkzeuge und secundär herabstimmend auf das Gefässsystem." *Materialien zu einer künftigen Heilmittellehre, &c.* (Leipzig, 1825. S. 468.)—*i. e.* "This remedy acts primarily as a stimulus on the brain, the intestinal canal, the urinary, and the genital organs; and secondarily, as a sedative on the vascular system." And, in the next page, its particular effects as an aphrodisiac and emmenagogue are specially mentioned. It may be worth mentioning, that one of the experimenters took the foxglove without any effect, though he carried the dose as high as ten grains: the medicine was good, and he was seen to swallow it. (*Materialien, &c.* S. 455.)*

Our author writes with the ease and fluency of a man who is discussing a subject with which he is perfectly familiar, and the work consequently reads very pleasantly. Those who confine themselves to a small number of select books may be content with the "Dispensatory;" those who aspire to a library should have the "Elements" likewise.

* Dr. Jörg, in another work, ("Ueber die Kinderkrankheiten,") observes that, by his experiments, he discovered in a few weeks what that excellent physician, Gölis, was sixteen years in ascertaining, namely, the inutility of digitalis in hydrocephalus: indeed, he says, as it is a stimulus to the brain, it must be injurious.

Alphabet of Medical Botany, for the Use of Beginners. By JAMES RENNIE, M.A., Professor of Zoology, King's College, London.—London, 1834. 18mo. pp. 152.

Alphabet of Botany, for the Use of Beginners. By JAMES RENNIE, M.A., &c.—London, 1833. 18mo. pp. 192.

THE peccant abecedarian, the man of alphabets and errors,—Professor Rennie, in short,—has so extraordinary a fecundity of these pigmy treatises, that it would require a whole battalion of reviewers to keep pace with the innumerable litters of this literary rabbit; but it fortunately happens that a small number only of his productions fall within our province, and we leave to other censors to determine how much the professor, or his amanuenses, may know of Astronomy, Natural Theology, Perspective, Agriculture, Euclid's Geometry of Straight Lines, &c., on which, and many other subjects, he has Alphabets in “forward preparation.”

In the commencement of the Alphabet of Medical Botany Mr. Rennie says, “I have followed the system of Linnæus, as the easiest for a beginner; but have taken care to point out, at the same time, the order to which each plant belongs in the system of Jussieu, as it has been improved by De Candolle, Richard, and others.” (P. 2.) The latter part of our author's promise has hardly been fulfilled in a single instance: the deviations both from Jussieu and from his followers are constant; and we shall presently see that the Professor is very often inconsistent with himself. Whether a *Jussieuan* order, in the Alphabet before us, means one of the orders devised by Jussieu, or one of those introduced by his followers, is not quite so clear as might be wished; for the word is used in both senses, and sometimes in neither: thus, at page 13, the Zedoary, Ginger, and Cardamom, are said to belong to the Jussieuan order *Scitamineæ*. Now, there is no such order in the system of Jussieu, but it is one of the natural orders of Linnæus. The plants just mentioned belong to Jussieu's natural order *Cannæ*: this has been subdivided by Robert Brown, who reintroduces the Linnæan name for one of the sections: but of all this our compiler appears to be unaware; and although, at p. 13, he says the Zedoary, Ginger, and Cardamom, belong to the *Scitamineæ*, at p. 114, when describing the Jussieuan system, he says they belong to the order *Amomæ*! [*Amomeæ*?] At p. 15, the *Gratiola officinalis* is referred to the *Jussieuan* order *Personatæ*. Now, this order is not one of Jussieu's, but belongs to the natural system of Linnæus. Again, in the same page, the olive is said to belong to the Jussieuan order *Oleinæ*, while at page 119 it is referred to the *Jasmineæ*. Any one ac-

quainted with the subject sees clearly how and why the professor was misled: the fact is, that the *Oleinæ* are one of the modern subdivisions of Jussieu's *Jasmineæ*: but how is the student to guess this?

There is no end of blunders of this kind. At pages 16 and 17, the Peppers are referred to the Jussieuan order *Urticeæ*, which belong to the 15th class of his system, and are the 98th order, being one of the dichlinious *Exogenæ* or *Dicotyledons*; but at p. 112 they are referred to the order *Piperiteæ*, (*Piperitæ*, or *Piperaceæ*, we presume to be meant,) and here the Peppers are classed among the *Monocotyledons*.

That *Jussieuan* often does not mean the orders given by Jussieu himself, is evident even from the above examples; and that it often does not mean the modern modifications of the natural system, is equally evident. Had the improvements of De Candolle, Richard, and others, been really introduced, the author would have known that *Cinchona*, (p. 26 and 125,) Coffee, *Ipecacuanha*, &c., now belong to the natural order *Cinchonaceæ*; or, if he chooses to retain the term, *Rubiaceæ*, that the Madders (p. 23 and 125,) belong to the *Stellatæ*. At page 35, the Elm is said to belong to the Jussieuan order *Amentaceæ*, and at page 137 to the *Ulmaceæ*. The Flax-plant, at page 36, is placed among the *Caryophylleæ*, but at page 133 among the *Linaceæ*, a Rennieism for *Lineæ*; just as at page 39 we have *Colchiceæ* for *Colchicaceæ*, and *Acerideæ* for *Acerineæ*: the Jussieuan order is *Acera*. The *Oxalis* is referred to the *Geraniaceæ* at p. 56, and to the *Oxalideæ* at p. 130. At p. 60 the figure of the Pomegranate does not agree with the description in the text, as to its corolla. At p. 66 the description of the *Aconite* is altogether obsolete. Our abecedarian says it has no calyx: De Candolle says that it has a calyx, which is petaloid. The Alphabet affirms that it has a corolla formed of five petals; while De Candolle says the petals are two in number, &c. The accounts of *Delphinium Staphisagria* (p. 67), and of the *Helleborus niger* (p. 68), are equally faulty. The name *Spartium scoparium* (p. 83), is quite obsolete, the proper appellation being *Cytisus scoparius*.

Were we not tired of pointing out errors, we might give numerous instances of such ignorance as occurs at page 84, where the Lemon is called *Citrus medicus*, as if *Citrus* were masculine, and the specific name signified medical; whereas it ought to have been written *Medica* to agree with *Citrus*, and to indicate that the native place of the fruit is *Media*.

As to names, the Professor is very much behindhand. The Corsican worm-grass has long ceased to be called *Fucus Helminthocorton*; it is a species of *Gigartina*. The Lichen Islandicus is now called *Cetraria Islandica*, and the Scilla maritima, *Ornithogalum Squilla*. The errors in orthography are exceedingly numerous: thus, at p. 24, we have *πεντα* for *πεντε*; at p. 37, *εξ* for *εξ*; at p. 41, *ηπτα* for *επτα*; at p. 43, *δκτο* for *δκτω*; at p. 74, *νημα* for *νημα*; to say nothing of *νημα* being made a component part of *Didynamia* and *Tetradynamia*. At p. 115, we have *Asarum longa* for *longum*; and so on, for ever. Nor are we much pleased with our compiler for calling *Asparagus Sparrow grass*, and the *Asparagineæ Sparrow grasses*, as he does at p. 113. This should have been reserved for an Alphabet of Street-cries, with which we shall, no doubt, be favoured in due time.

This Alphabet of Medical Botany, passing over its errors of execution, is, even in its plan, a work of the most superficial kind. It consists of nothing more than what would constitute the heads of chapters, or the table of contents, of a really useful book. The Professor has copied his descriptions from well-known works; the mistakes only are his own.

For the sake of beginners, we must continue this painful dissection, and demonstrate a few of the errors with which the Professor has most plentifully besprinkled his Alphabet of Botany: we say a *few* only, as we should be ashamed to fill our pages with an exposure of all its faults. It errs both as to matter of fact and reasoning; the compiler, throughout his manifold blunders, keeping up the most unruffled self-complacency.

Mr. Rennie has heard something about a potato not being a true root; but that he does not know why, appears from his supposing a carrot to be in the same predicament.

“Upon the same principle which leads naturalists to rank the whale and the dolphin among land animals, and not among fishes, modern botanists do not consider carrots, potatoes, and the like, as roots, but as subterranean stems, because they perform the functions of stems rather than of roots.” (P. 11.)

Were we to judge of the Professor's acquaintance with zoology from the above extract, we should suppose him to be a beginner even in the science which he professes; for, although the whale and the dolphin are classed among the *Mammalia*, they were surely never placed among *land animals*.

The Professor has no mercy on the modern theory of the modern metamorphosis of plants, but says,

“According to the partially fashionable, but wildly absurd theory lately introduced, first, if I mistake not, by the German poet

Goethe, a complete flower is represented to be the union of four whorls of leaves variously modified. In the same vein, Von Martius, of Munich, announces as a profound discovery that a plant is nothing but a leaf which has made a determinate number of revolutions, and hence all leaves ought by theory to grow alternately; but it being found that many leaves do not grow alternately, but one opposite to another, it is said this arises from the regular theoretical lengthening of the stem upwards being checked till the opposite leaf expands, a check that is uniform in the seed-leaves of those plants which have two seed-lobes. I submit to any reader endowed with common sense, that this is not science, but fanciful romance, of similar character to Van Helmont's Archæus and Darwin's gnomes and sylphs, though it is loudly trumpeted forth as being founded on rigid and accurate observation." (P. 43.)

However, he adopts Röper's views of the inflorescence founded upon it.

"Compound flower-stalks may be variously arranged and named, but I shall follow Professor Röper of Bâle, as the most modern, if not the best, in the midst of much confusion. Röper considers the modes of flowering as consisting of an evolution, which may be centripetal, centrifugal, or mixed. This arrangement, however, I ought to mention, evidently originated from the wild theory of Goethe and Von Martius, to which I have just objected; but as it is here introduced, I have completely stript it of all theory, and only given what is based on facts; for there is a wide difference between the representation of flowers being actually leaves transformed into flowers by rotatory evolution, and the simple fact that the flowers of certain plants are evolved in a certain order and direction." (P. 44.)

In attempting, however, to adopt this system, he flounders about as usual, calling the inflorescence of lavender a spike, when it is a thyrus of verticillastri, and that of digitalis a spike, when it is a raceme.

At p. 114 he says correctly,

"Linnæus describes certain seeds as naked; but the envelope of the seed-organ is, with very few exceptions, such as in firs and pines, and the sago plant, never wanting, though sometimes it is so thin as not to be easily seen. It is always composed of an outer membrane, a middle membrane, and an inner membrane, all intimately united. These parts are very distinct in the peach, but not obviously distinct in the nut." (P. 114.)

But afterwards, to shew the reader that he did not understand the bit we have just quoted, our alphabet-monger confounds seeds and fruits in a most inexplicable manner; as thus,

"Seeds may be either close, or dehiscent. A close seed may be a grain, like wheat, maize, and rye-grass; it may be a simple pip, as in thistle and sunflower; it may be a composite pip, as in

borage, dead nettle, lady's bed straw, ranunculus, parsley, and hemlock; it may be a key, as in ash, maple, and elm; it may be a gland, as in the oak and filbert; or it may be a utricle, as in the lime, the nettle, and orach.

"A dehiscent seed may be a follicle, as in the laurel rose; it may be a double follicle, as in swallow wort; it may be a purse, as in the cabbage and wallflower; it may be a purselet, as in honesty and shepherd's purse; it may be a pod, as in the pea, the bean, bladder senna, cassia, and astragalus; it may be a capsule, as in the pimpernel, poppy, and pinks; it may be a caper, as in spurge; or it may be a cone, as in alder, birch, and fir.

"*Fruits*, as popularly distinguished from seed, are more succulent or fleshy, and are all close. Botanists consider fruits to be the ripened seed-organ. A fruit may be a stone fruit, as the plum, the cherry, and the haw; it may be a nut, as the walnut and the almond; it may be a nutlet, as in the ivy; it may be a pome, as the apple, pear, and hip; it may be a pepon, as the melon and cucumber; and it may be a berry, as the vine, potato, gooseberry, orange, and fig; but the strawberry and raspberry rank as seeds with composite pips; and the mulberry and pine apple as a compound berry." (P. 125.)

Who ever heard of *seeds* being dehiscent and indehiscent? The grains of wheat, maize, and rye-grass, are not seeds, but fruits, *i. e.* seeds invested with their pericarps; and the same is true of every example given in the paragraph on close seeds. Then, who ever dreamed before of a follicle being a dehiscent seed; or of siliques and silicles, legumes and capsules, cocca and strobiles, (as in the wallflower, the pea, the bean, the poppy, and the fir,) being *seeds*, differing only in their dehiscence? Again, with regard to fruits, the examples are erroneous. A haw is not a drupe, but a pome; while the walnut and the almond, which the Professor calls nuts, are both drupes; the hip, which he calls a pome, is no such thing; the fruit of the spurge, which he terms an Elaterium, is as unlike one as possible; and as to botanists ranking, as he says they do, the strawberry and raspberry as seeds with composite pips, and the mulberry and pineapple as a compound berry, the very suggestion savours of madness. And yet this is the man who says "*I*" agree with Mirbel, or "*I*" differ from De Candolle, and who ventures, with the calm assurance of ignorance, to say what follows of Loudon's *Encyclopædia of Plants*, one of the most valuable and learned works that has been published for years: "Were I the proprietor of this work, I would not hesitate an instant to break up the stereotype plates, in order to expunge such glaring contradictions and highly dangerous errors." (P. 182.)

These specimens may serve to shew our younger readers

in what the difficulty of compiling really consists. It does not consist in stringing together amusing bits from a number of books, for this our author can do; but in making them cohere, so as to form one harmonious whole, and this he cannot do. Moreover, the compiler must not only prevent new errors from gliding in, but must correct those which he finds; and this, again, our compiler cannot do. The man who has none of these substantial titles to praise, but rests his hopes on neat printing, green covers, and the applause of the newspapers, may be assured that the *Manchester Courier* and the *Bristol Mercury* are not the harbingers of scientific fame; that the critics (though few there be,) who understand the subject of their examination, are the real Court of Cassation, to whose decrees all inferior tribunals must submit; while the reputation which Professor Rennie is endeavouring to establish is as ephemeral as the periodicals which trumpet it forth.

An Investigation into the remarkable Medicinal Effects resulting from the External Application of Veratria. By ALEXANDER TURNBULL, M.D.—London. 8vo. pp. 96.

WE are informed that the Father of Physic increased his knowledge of the art which has immortalized his name, by reading those tablets suspended in the temples of the gods, on which the grateful sick had recorded the nature of their disease, and the medicine by which it was cured. So useful is the honest history of a case, even when fidelity lacks the perfection which knowledge alone can impart! But far more useful does the register of disease become when it is drawn up by one who is qualified for his task, not only by honesty, but by science; who can select the most instructive from a crowd of cases; and who, like an old general, engages our sympathies in his successes, by the candour with which he narrates his defeats. There is a short passage in Celsus relating to this last point, which is at once so just and so elegant, that we cannot refrain from quoting it. “A suturis se deceptum esse, Hippocrates memoriæ prodidit; more scilicet magnorum virorum, et fiduciam magnarum rerum habentium. Nam levia ingenia, quia nihil habent, nihil sibi detrahunt: magno ingenio, multaque nihilominus habituro, convenit etiam simplex erroris confessio; præcipueque in eo ministerio, quod utilitatis causâ posteris traditur; ne qui decipiantur eâdem ratione, quâ quis ante deceptus est.” (*De Medicinâ*, lib. viii. cap. 4.) Great men, says the classic physician, who are conscious that they have done great things, can afford to confess that they have made a mistake; but your little people, having nothing, will give up nothing, and

are unceasingly in the right. Alas! at present we have to do with one who will give up nothing—*nihil sibi detrahit*.

Every one knows that, in its native or natural combinations, as in *colchicum* and *veratrum*, *veratria* has been used, and to some extent, in this country, but always cautiously, from its known power of irritating the mucous membrane; and the latter plant is very seldom given in the present day, from its pre-eminent tendency to stimulate such surfaces. The French physicians were the first to use *veratria*, as well as most of the other active principles of plants, for the knowledge of which we are indebted to the researches of modern chemistry. *Magendie*, in his "Formulaire," mentions several modes of employing it, and states the required strength for the ointment to be four grains to the ounce of *axunge*. Our author, we suppose, looks upon this as rather milksop practice; for he recommends an ointment of from fifteen to twenty grains to the ounce; and of this about one tenth is to be applied by friction over the part affected, once, twice, or more times in the day. Instead of causing any bad consequences, he tells us that its action is quite salutary.

"The first circumstance which must strike every person who prescribes the external uses of this medicine, is the very remarkable difference which is found to exist betwixt its effects upon the body when so applied, and those which result from its external exhibition. We have seen that, when applied to any of the mucous membranes, even in the smallest quantity, it produces the most violent irritation, and that when rubbed upon the surface of the body to the extent of six or eight grains a day, for several weeks, or even months together, no such consequences follow; for although the constitution has evidently, during the greater part of the time, been under the influence of the *veratria*, so far from acting in that manner, it has been observed to calm irritation, remove pain, and produce considerable elevation of spirits. The general health and appearance begin to improve, the appetite remains unimpaired, or even becomes better, the patient experiences not the slightest degree of nausea; and the bowels, instead of being acted upon in the manner in which the internal exhibition of the medicine would lead us to anticipate, are either altogether unaffected, or such a degree of constipation is induced as to render the use of purgatives necessary to keep them in their usual state." (P. 5.)

After giving us a few more observations upon the very different effects of *veratria*, when rubbed upon the skin, to those which are commonly observed when it is given as an internal remedy, Dr. Turnbull warns us to be careful in obtaining the alkaloid quite pure; for we may be sure that it is adulterated if it should fail in affording the relief which we had anticipated.

The remarks which follow, we suppose are intended to deprecate criticism, and to prepare us for believing all that our author chooses to relate of the wonderful powers of his favourite medicine.

“ In an inquiring age like the present, it behoves an individual, in laying before the profession any new plan of treatment, especially if that be applicable to diseases which have heretofore been considered either very obstinate or incurable in their nature, not to say more in its favour than the facts brought to light during its investigation warrant; for experience teaches us that many remedies, the prudent use of which might have rendered the most essential service to medical science, have suffered, often irremediably, in consequence of the rash and inconsiderate praises heaped upon them by their discoverers.” (P. 9.)

This is very true; but we would ask our author whether he does not conceive that he is falling into the very error he decries, by giving us whole hosts of cases, which he himself allows may be considered “as savouring too much of the marvellous.” The plain truth we believe to be, that this book was never intended for the use of the professional reader, but for the profane laity; for the details of the cases are so loose, and so vague, as to be of not the slightest service to the practitioner. There is a very large class of persons in this kingdom who are totally unconnected with medicine, either theoretically or practically, but who make it a point to peruse every work upon medicine which falls in their way, more especially when enlivened by the relation of cases: these idlers are a species of perambulating advertisements, and it is for this class that we infer this “Investigation” was penned; for its whole tenor is of the kind with which these small wits delight to regale themselves: they will relate the prodigies performed by the new medicine to all their valetudinary acquaintances, and will doubtless add a few piquant relishes from their own fancy, exemplifying the old adage, that a story does not lose by the telling.

It is almost cruel, perhaps, to subject a work intended for the loungers of Bath and Cheltenham to medical criticism; and a grave examination of a pump-room book may be considered quite as supererogatory as if a chemist were to shew, without sparing us a single test, that tinsel is not gold. Yet we will venture to trespass a little longer on the patience of our readers, and unfold some of the properties of the Panacea Turnbulliana.

The principal diseases in which Dr. Turnbull has used the veratria ointment are rheumatism, gout, ascites, tic, or neuralgia, dysmenorrhœa, ovarian dropsy, paralysis, and diseases

of the heart. This is a very tolerable number of maladies for one remedy to cure radically, and we congratulate both our profession and the world generally upon the discovery. How grateful ought the poor patient to be, who is suffering from diseased heart, to the man who has found out an ointment which, by only being rubbed twice or thrice upon the part, removes the complaint, and compels the impaired organ to reassume its healthy action. (See Cases 1, 3, and 4.) In Case 7, the patient is described as being sixty years of age, and suffering from violent beating of the heart, strong pulsation in the neck, throbbing and giddiness in the head, and a continual whizzing noise in the left ear; to these were added considerable anxiety, sleep interrupted by palpitation, and pain in the region of the heart. Case 9 is nearly similar in its details, but the symptoms were more aggravated. Your ordinary doctor, now, would have given up these patients; but then your ordinary doctor is not a Turnbull. In both instances the whole of the bad symptoms were instantly relieved by the first application of the ointment, and entirely subdued after it had been used only three times.

Neuralgia, or tic, would seem to be a more sturdy opponent to the powers of the alkaloid than most other complaints; for it required much larger doses to be used for its dislodgment than had been called for in any of the previously mentioned diseases. The author is accustomed, in cases of long duration, to apply an ointment over the pained part twice as strong as that in common use, with the express purpose of getting the system as rapidly as possible under the influence of the remedy. The Ung. Turnbull. fort. contains forty grains of veratria to the ounce of axunge. The directions to be observed are, that the part suffering is to be rubbed for fifteen or twenty minutes, "until the heat and tingling caused by the friction have been so great as to produce an impression on the feelings of the patient equal to that arising from the disease itself." We are led to infer from this that the heat and tingling are to be looked upon merely as signs of the remedy having begun to take effect, being otherwise too trivial to excite a moment's consideration. We, however, happen to know a medical gentleman, of considerable eminence in his profession, who, having heard of the utility of the veratria in rheumatism, and being at the time afflicted with it in one of his arms, was induced to rub some of the weaker ointment (twenty grains to the ounce) over the part: soon after its application, the heat and tingling were not only excessive, but intolerable, until at length he was obliged to take opium to produce even anything approaching to a state of quietude.

The next morning, to his great annoyance and astonishment, he found his arm covered by an eczematous eruption, and, what was worse than all, the rheumatism remained unabated. According to Dr. Turnbull, however, the same magical consequences are produced by this remedy in this as in other painful diseases; one, or at most two, rubbings having proved sufficient to banish the pain, and cure the patient: and this is the more surprising, as, in some of the cases, the malady had been existing for a lengthened period of time,—in one, for instance, for thirty-six years, in a second for twenty-two, in a third for sixteen, and in several others for eleven, nine, eight, seven, five, and four years; and yet all were cured by once or twice rubbing.

If it be productive of the happiest effects in acute rheumatism, our ointment outdoes itself in chronic attacks, and restores stiffened joints to their natural and legitimate uses.

We really must hasten to terminate our remarks, for we are perfectly sated with these therapeutical wonders,—these tales in which the fairy *Veratria* puts to flight a hundred gigantic diseases.

In concluding, we shall only remark, that *veratria* seems to be endowed with the faculty of instinct, and that it selects the proper cases in which it shall produce its peculiar action very rapidly; while, again, in others, it allows a continuance of its application without causing any other sensations than those of gratification and pleasure. In fact, in some parts of this book we are told that twice, and at most thrice rubbing, will cure the most frightful complaints; whilst in others, the author says, he has ordered patients to continue its use for four months together, without any intermission; in others, he has given them a “*carte blanche*” to employ it how, when, and where they please.

We should suggest to Dr. Turnbull,—we presume not to advise,—that, when he next writes upon any subject, either a new remedy or a new disease, that he should give to the world not only an account of his success, but also of his failures; for he may rest assured that not only physicians, but the thinking portion of the unprofessional world, will look with great suspicion upon any drug, however powerful, or mode of treatment, however serviceable, which comes before them in such a questionable shape as he has presented his *veratria*; and, as he himself says, in a paragraph we have quoted at the commencement of this article, “it behoves an individual, in laying before the profession any new plan of treatment, not to say more in its favour than the facts brought to light during its investigation warrant:” it is a pity he has not taken his

own advice; for we more than suspect that the remedy has not yet been discovered which enjoys such miraculous powers as are said to be possessed by the veratria in the hands of Dr. Turnbull.

The Medical Works of PAULUS ÆGINETA, the Greek Physician, translated into English; with a copious Commentary, containing a comprehensive View of the Knowledge possessed by the Greeks, Romans, and Arabians, on all Subjects connected with Medicine and Surgery. By FRANCIS ADAMS, Esq., Surgeon, Author of "Hermes Philologus," &c. Vol. I.—London, 1834.

THERE has been great diversity of opinion, even among judicious men, on the advantages of studying the ancient writers on medicine; some maintaining that almost all that is valuable in the science is to be found in their works, and others contending that nothing but antiquarian enthusiasm can discover in them anything truly useful, or applicable to the present advanced state of knowledge. If the question were argued on the ground of immediate utility, truth would probably incline to the side of the latter, since there is no doubt that a man who has never read a word of Hippocrates or Galen, may nevertheless be a scientific physician, and an excellent practitioner; but we do not think this is the proper way of viewing the subject. It must indeed be admitted, that we know nearly all that the ancients knew, that we have corrected many of their errors, and greatly augmented the stock of knowledge which they bequeathed to us; but is there no benefit to be derived from tracing knowledge back to its sources? none from contemplating ideas which are now familiar, in all the simplicity and vigour with which they sprang from minds comparatively unwarped by prejudice, unbiassed by controversy, and conversant chiefly with the observation of nature? Is it unprofitable to learn how others have arrived at truth, or become entangled in error? In a word, is not the history of every subject essential to its true philosophy?

There is, moreover, much pleasure to a liberal mind in the extended survey of a science to which some of the highest of human intellects have in all times been devoted, and in marking the gradual progress of the fabric they have reared. If it be objected, that this pleasure is of an imaginative cast, it may be answered, that an object is never so ardently and successfully pursued as when the imagination illumines, without misleading, the course of the severer faculties.

But we must proceed to the immediate object of this ar-

ticle,—the work of Mr. Adams, a work of great labour and research, and by far the most learned that has been published in this country on the subject of ancient medicine, since Friend's History of Physick. If this were merely a translation of Paulus Ægineta, we should set our face against it, whether it were well or ill executed. To translate a classical author is at best a species of moral flaying,—it is to denude him of his natural tegument of language; and all English versions of the Greek or Latin physicians are especially to be reprobated, as tending to perpetuate that ignorance of the classical tongues which is already the disgrace of our profession. Mr. Adams' translation, however, is to be exempted from this censure, since it is merely intended as the basis of a very correct and comprehensive view of the theory and practice of ancient medicine; and he has selected his author judiciously, as the writings of Paulus afford a sort of compendium of Grecian medicine at its latest and most advanced period.

Such a work has hitherto been a great desideratum in medical literature, though its magnitude might well deter any one from attempting it. The labour is, however, more practicable than might at first be supposed, since, with reference to the authors who succeeded Galen, it consists only in pointing out the comparatively few particulars in which they differed from him. That extraordinary man, devoting to medicine all the resources of a vast intellect, a subtle though false philosophy, and a varied erudition, brought the study to the greatest perfection it was then capable of attaining; and, in the ensuing absence of all equal talent, his genius shone through the long lapse of fifteen centuries,

*Ἐν ἀμέρᾳ φαεινὸν ἄστρον
Ερήμας δ' αἰθέρος;*

nor is there any other profane writer, except Aristotle, whose opinions have exerted a more permanent influence on the minds of men.

Such a work as Mr. Adams's is still an immense undertaking, for which, however, the great extent of his reading seems eminently to qualify him: he professes, indeed, "to have read every word of every ancient writer that has come down to us;" a bold assertion, but one which the perusal of his book affords no reason to call in question.

Four Greek physicians, after Galen, have been admitted into the number of the medical classics. They succeeded each other in the following order, and, in all probability,

nearly about the periods severally annexed to their names, on the authority of Dr. Friend :

Oribasius	A.D. 360
Aetius	500
Alexander of Tralles	560
Paulus Ægineta	640

These authors were all, more or less, copiers of Galen, though they also drew from Hippocrates and other ancient authorities; and each, especially Aetius and Paulus, have given many results of their own experience. The voluminous writings of Oribasius consist principally of an epitome or interpretation of those of Galen, whose meaning he has in some passages rendered clearer. Paulus, again, professes to be chiefly indebted to Oribasius, speaking with much modesty of his own individual contributions, which however were numerous and important, for his surgery is much more complete than that of any preceding author; he is the first who treats of the obstetric art, and he is more particular than his predecessors on the diseases of females.

In the following passage, at the conclusion of the preface, Mr. Adams has, we believe, condensed all that is known of the history and æra of Paulus.

“ Before concluding these prefatory remarks, it will be naturally expected that I should say something of the author whose work I have bestowed so much pains in translating and commenting upon. Here, however, I must regret that the information which I have to supply is exceedingly scanty and unsatisfactory. So little is known of him that it is not even ascertained in what century he flourished. Vossius is wholly undecided; Moreau and Le Clerc place him in the fourth century; Vander Linden and Convinguis, in the fifth; but Friend, Albertus Fabricius, Hutcheson, Sprengel, and most of the late writers of the ancient history of medicine, bring him down as low as the seventh century, upon the authority of Abulfaragius; an author, however, who on many occasions betrays such gross ignorance of chronology that no reliance ought to be put on any opinion of his on these matters. What confidence does a writer deserve who states, for example, that Andromachus, the physician who added the flesh of vipers to the celebrated electuary of Mithridates, lived in the time of Alexander the Great! that Dioscorides of Ain Zarba flourished in the reign of Ptolemy Physcon, namely, about 120 years before Christ, whereas it can scarcely admit of a doubt that the celebrated author of the Greek *Materia Medica* did not live earlier than the end of the first century of the Christian æra; and that Ruffus was cotemporary with Plato, when we have the authority of Suidas that he lived in the reign of Trajan! Dr. Milward, in his *Epistle to Sir Hans Sloane*, endeavours to

settle the age of our author from the following train of inferences : In the first place, then, since Paulus quotes Trallian, and Trallian Aetius, it is quite certain that our author was posterior to both these writers. Now the age of Aetius may be made out from the following circumstances : Aetius mentions St. Cyril, archbishop of Alexandria, whose death is ascertained from ecclesiastical history to have happened as late as the middle of the fifth century. Nay, he also takes notice of a medicine much recommended by Petrus Archiater, chief physician of Theodoric, who was posterior to St. Cyril. We cannot possibly suppose it likely, then, that Aetius flourished earlier than the end of the fifth century. But what brings him still further down is the circumstance of his predecessor, Trallian, being mentioned by Agathias the historian, about the year 565. It would seem almost certain, therefore, that our author cannot have lived at an earlier period than the end of the sixth or the beginning of the seventh century. But, whatever may have been the period at which he lived, there can be no doubt that he attained great eminence in his profession, and continued to be looked up to as one of the highest authorities in medicine and surgery during a long succession of ages. His countryman Nonnus, although, if I recollect right, he does not mention him by name, gives a brief compendium of a considerable portion of his work ; and Psellus does the same in Leonine verses.

“All the medical authors, in a word, of the distinguished Arabian period, quote his opinions in almost every page of their works, and never fail to recognise him as one of the most trustworthy of their Grecian masters. At the revival of literature in modern times, the Latin translations of the Arabians continued for a time to be the ordinary guides to practice ; but, when the superior merit of their Greek originals came to be properly appreciated, our author rose again into high consideration. As a proof of this, I may mention that the surgery of Fabrice d’Aquapendente is made up almost entirely from his works. Portal therefore had no good occasion for representing him as “one of those unfortunate writers to whom posterity had not done justice.” I admit indeed that for some time past, since professional research and the study of ancient models have been superseded by a restless desire of novelty in theory and in practice, he has not enjoyed that consideration to which he is justly entitled, but in this respect he has only shared the fate of other names equally eminent for their contributions to medical science, who have now been suffered to fall into neglect.

“Of the Latin translations of his works, the most celebrated is that of Cornarius, published by Henry Stephens, in his *Medicæ Artis Principes* ; but which, after a careful examination, I have not found to be so trustworthy as I expected to find it. There once existed an Arabic edition by Honain, a Syrian physician, but of it I know nothing. The only part which has been translated into any modern language is the sixth book, a French translation of which was published at Lyons A.D. 1539. Of the original there

are two editions, namely, the Aldine of 1528, and the Basle of 1538, neither of which is so accurate as could be wished."

The work of Paulus consists of seven books, of which the volume before us comprises the three first. Our remarks on this publication will be directed chiefly to the annotations of the editor, which constitute by far the most important part of it.

The first book treats of all that relates to Hygiene, of the influence of external agents on the system; of diet and regimen, as adapted to different ages, sexes, constitutions, and seasons; and, in the consideration of the *temperaments*, has afforded scope to Mr. Adams for an excellent outline of ancient physiology. In his annotations on the 63d and following chapters he comments

"*On the Characters of the Temperaments of the Brain.* The ancients divided the powers or faculties of the human body into the natural, the vital, and the animal. The brain they held to be the seat of the animal powers, that is to say, they considered it to be the organ from which sensation and motion are derived, and these, they maintained, are the powers by which animals are distinguished from vegetables. This doctrine is fully explained by Galen, in his work *De Facultatibus Naturalibus*, and by several of the Arabian authors, among whom I will venture to mention Haly Abbas as being particularly worthy of being consulted on this subject. The brain, then, was accounted the seat of the five external senses, and of muscular motion, which also was reckoned as one of the senses by Hippocrates, (*De Insomniis*, c. 1.) I may mention, by-the-way, that the late Dr. Brown, and the present Dr. Abercrombie of Edinburgh, adopt the arrangement of Hippocrates. Galen and his followers decidedly taught that the nerves of the senses are distinct from those which impart the power of motion, that the former derive their origin from the anterior part of the brain or cerebrum, and the latter from the posterior, called by the Greeks *encephalis*, (under this term they comprehended the cerebellum, *tuber annulare*, and *medulla oblongata* of modern anatomists,) or, from its process, the spinal cord. They maintained that the nerves of the finer senses are formed of matter too soft to be the vehicles of muscular motion; whereas, on the other hand, the nerves of motion are too hard to be susceptible of fine sensibility, Willis, and lately Mr. Charles Bell, in his reply to an article of mine, in the *Medical Gazette*, (May 2, 1829,) on the opinions of the ancient physiologists with regard to the nerves, deny that the nerves of sensation are softer than those of motion. Ackerman and Malacarne, however, maintain that the opinion of Galen on this point is perfectly correct, and with them I entirely agree. Let any person attentively examine the gustatory and muscular nerves of the tongue, and he will be sensible of the superior softness of the former. As my

limits would not admit of my giving a full explanation of this celebrated theory, which was lately revived with great eclat, I must be content with referring to Galen, *de Usu Partium*, lib. ix. *de Administ. Anat.* lib. vij. ij. 7; to Haly Abbas, *Theoricæ*, lib. iv.; to Avenrhoes, *Colliget*, iij. 33; to Avenroar, ij. 7; and to Rhases, *Continens*, lib. i.

“The ancients were also of opinion, that the brain is the coldest viscus in the animal frame, being in this respect the antagonist of the heart, the heat of which they supposed that it counteracts: see Aristot. *De Part. Anim.* ij. 7, and Pliny, H. N. xi. 49. There appears to be some foundation for this opinion, since, as is remarked by Haly Abbas, those parts of the body which are vascular, and contain much blood, are naturally hot; whereas such as contain little blood are comparatively cold. Of this latter class are the brain, nerves, and fat. *Theor.* lib. i.”

In this passage we may discover traces of the only evil result which is wont to follow an enthusiastic addiction to the literature of the ancients, namely, a disposition to attribute to them opinions and discoveries which are entirely of modern origin. Thus Mr. Adams evidently wants to make out that the theory of the *muscular sense* originated with Hippocrates. The passage he refers to is the following:

ἡ γὰρ ψυχὴ ἐγρήγορεν. ὅταν μὲν οὖν σώματι ὑπηρετῶσα ἦ, ἐπὶ πολλὰ μεριζομένη, οὐ γίγνεται αὐτῇ ἐωϋτῆς, ἀλλ' ἀποδίδωσί τι μέρος ἐκάστῳ τῶν σώματος, ἧγουν τοῖσιν αἰσθητηρίοισιν. ἀκοῇ. ὄψει. ψαύσει. ὀδοπορίῃ. πρήξει. καὶ παση, τῇ του σώματος διανοίῃ.

Now Hippocrates cannot surely call ὀδοπορίῃ (*walking or running*,) a sense, which would be a solecism in terms: he merely enumerates it along with the senses, as dependent on the action of the mind. So far indeed was the Father of Medicine from having any theory connected with muscular action, that he had no conception of muscular action at all; for he attributed the movements of the body and limbs to the tendons, and believed that the use of the muscles was merely to retain the different parts of the frame in connexion with each other. This is clear from the following passage:

τὰ ὅστια τῷ σώματι στάσιν καὶ ὀρθότητα, καὶ εἶδος παρεχονται. τὰ δὲ νῆυρα, κάμψιν, καὶ ζύντασιν, καὶ ἔκτασιν. αἱ δὲ σάρκες καὶ τὸ δερμα, παντων ζύνδεσιν, καὶ ζυνταξιν.

(*De Ossium Natura*, ed. Foes, p. 277.)

With equal futility Mr. Adams endeavours to give to Erasistratus, Aretæus, or Galen, all the merit of the beauti-

ful modern discovery of the distinct functions of the anterior and posterior columns of the spinal marrow. In his note on apoplexy and paralysis, in the third book, he makes some more explicit remarks on this subject :

“ It is impossible to admire too much the brief but comprehensive account of apoplexy and paralysis given by Aretæus. He states decidedly that there is sometimes a loss of motion alone, and sometimes of sensibility; the reason of which he supposes to be that the sensory and motory nerves are distinct from one another. This is the germ of a theory fully expanded afterwards by Galen, and lately revived by Sir Charles Bell, of London, as a new discovery. It appears, indeed, from the anatomical works of Ruffus, that the famous Erasistratus had attempted a similar classification of the nerves. Galen, however, has the merit of fully establishing the truth of the theory; and all subsequent writers on physiology stated it nearly in the same terms that he does, until ancient authority in medicine and its cognate sciences came to be despised, when it was entirely overlooked, until, as we have already mentioned, it was revived by Sir C. Bell.”

As the writings of Galen are too voluminous for easy reference, and too expensive to be generally accessible, the following sketch of his more prominent views on the subject of the nervous system may not be unacceptable to the reader.

The nervous system consists of the brain, the spinal marrow, and the nerves.

The brain, including the cerebrum and cerebellum, is the immediate seat of the mind, and, as such, the primary organ of sensation and motion.

The brain is composed of the same substance as the nerves; the anterior portion is the softer, and gives origin to the nerves of sense; the posterior is harder, and gives origin to nerves of motion.

The spinal marrow is a production from the cerebellum, which, however, it exceeds in consistence. It contains just so much nervous matter as is necessary to form about sixty pair of nerves, which are distributed to each part according to its demands for nervous energy.

Nerves have three uses: to communicate to the organs of sense their respective sentient faculties; to excite motion in the organs of motion; and to enable the organs of the body in general to discern what might be injurious to them. (*De Usu Part.* lib. v. c. 9.)

The nerves of the senses are soft, like the part of the brain from which they are derived; they all rise from the anterior part, and pursue a straight course to the organs which they supply.

The motory nerves are hard, arising from the posterior part of the brain, and the whole of the spinal marrow: these pursue a circuitous course to the parts to which they are distributed.

Although Galen thus recognised a distinction between the sensory and motory nerves, he conceived that this difference of function arose merely from difference of *consistence*. His idea appears to have been a mechanical one,—that the soft nerves were more susceptible of impressions, and the hard nerves less impressible, but stronger, and therefore better fitted for action. He had not the smallest notion of any original difference in the nature of the nervous power communicated by the two classes of nerves, nor that the parts of the central mass from which they spring were respectively the depositories of a sensific and a motific principle, distinct in their nature, and dependent on different modifications of the vital power. That he was entirely ignorant of all this, is evident from his maintaining that the hard motory nerves, although comparatively insusceptible of sensation, do nevertheless possess that faculty in a subordinate degree, and sufficiently to produce the general sense of *touch*: and also that a nerve which originates as one of *sensation* from the soft part of the brain, may, at some part of its course, become condensed in its texture, and assume the office of a *motory* nerve. (*De Usu Partium*, c. xiv.)

The brain, according to Galen, gives origin to seven pair of nerves.

1. The *optic*, the largest and softest of the cerebral nerves, rise from the thalami optici, and joining each other, but without decussation, again separate, and perforate the ball of each eye, where they are ultimately distributed to the crystalline lens, then supposed to be the more immediate organ of vision.

2. The second pair (the third of the modern arrangement,) are smaller, but harder than the first: they rise toward the back part of the brain, and pass to the muscles of the eyeball, to which they communicate motion.

3. The third pair (fifth) are very hard; they rise towards the base of the brain, at the junction of the cerebrum and cerebellum. Only two of the branches of this nerve were known to Galen, viz. the superior and inferior maxillary: these are correctly stated to be distributed to the tongue, where they form the organ of *taste*; to the muscles of the upper jaw, and those of the face; to the gums, and roots of the teeth.

4. The fourth pair (apparently the first branch of the

fifth,) are small, but still harder than the preceding: they rise from the base of the cerebellum, and pass through the same foramina as the third pair. They go to the palate, where they also minister to the sense of taste.

5. The fifth pair, or *auditory*, are also very hard; they rise a little behind the last, and go to the internal ear.

6. The sixth pair (*par vagum*) are still harder, and rise farther back. They supply many branches to the gullet, stomach, and viscera, and each sends back a *recurrent* nerve to the muscles of the larynx.

7. The seventh pair (*glosso-pharyngeal*) are the hardest of all the nerves of the encephalon, and rise from the junction of the spinal marrow with the cerebellum; they accompany the sixth pair for a short distance, and then, separating from them, are distributed to the tongue, which they endow with motion, and to the muscles of the larynx.

Galen was unacquainted with the olfactory nerves, though he describes the bulbs from which they are given off: he believed that the extremities of the anterior ventricles of the brain formed the organ of smell.

The ganglionic system of the great sympathetic nerve was unknown to him.

Such is a slight outline of the nervous system according to Galen. We have avoided the minutiae, because they are obscure, and for the most part inaccurate.

The reader will perceive how little reason there is for Mr. Adams's assertion, that Galen anticipated Sir Charles Bell's discovery of the sensory and motory nerves, which consisted not in suggesting the probability that some nerves were destined for sensation, and others for motion, but in shewing, with reference to the spinal cord, that the anterior columns have exclusively the power of communicating motion, and the posterior that of receiving the impressions of sense. The diversity of function in the sensory and motory nerves was ascribed by Galen to difference of texture, by Bell to difference of vital property; and, with regard to the respective origin of these two classes of nerves, Galen *conjectured*, and was wrong, Bell *demonstrated*, and was right.

Truly Sir Charles and M. Magendie will be sorely aghast; for, after these gentlemen have been contending for some years about the prior right to this discovery, and we in our simplicity have conceived the question to be settled in favour of the former, in walks Galen, ushered by Mr. Adams, and plays the part of the umpire in the fable of the disputed oyster!

Jesting apart, Galen knew about as much of this matter as

Goliah; and we cannot help observing, that modern erudition may be better employed than in attempting to rob contemporary merit of its just honours; and that it is a poor compliment to the ancients to dress them in borrowed robes, when they look so majestic in their own.

“ *On the Characters of the Temperaments of the Stomach.* We shall now state briefly the opinions of the ancients with regard to the functional office of the stomach. Actuarius says, ‘ I am of opinion that there are four species of concoction, which are performed in different parts of the body: the first in the stomach; the second in the vena ramalis (vena portæ?) meseraic veins, and concave part of the liver; the third, in the convex part of the liver and veins proceeding from it; and the fourth, consisting of fabrication or assimilation which takes place in the extreme parts of the body.’ *De Urinis.* The various modes of change or concoction which the food undergoes in the body are minutely described by Macrobius, *Saturnal. lib. vij.* In another place Actuarius says, ‘ digestion is performed by moderate heat and moisture.’ *De Spiritu Animalis*, p. ii. § i. Alsharavius in like manner states, that the digestive faculty depends partly on the heat, and partly on the humidity of the stomach. *Bract. tr. xvj. c. i.* It is impossible not to see that the gastric juice is alluded to in these passages. It is particularly stated of Asclepiades, that he held digestion to be the solution of the food. See C. Aurelianus, i. 13. And that the ancients were aware that the stomach secretes a fluid possessed of solvent properties, is put beyond a doubt, by the following extract from the works of Haly Abbas. Speaking of the changes which the food undergoes in the mouth and stomach, he says: ‘ *Immutantur cibi in ore, retinenturque, et flegmati admiscetur quod digestum est, calorque ei datur. Quod autem flegma hoc hujusmodi sit, signum nobis est, quod impetigines et sarpedones curat, quædam maturat ulcera, scorpiones necat. Hac ergo de causa et in ore cibus immutatur. Sic et stomachus ipsum immutat: ejus etenim circum amplectitur substantia, quasque habet imprimit qualitates, immutaturque ipsius naturali calore cibus: sed et quoniam cibus ipse in eo flegmati admiscetur humido.*’ *Theor. iv. 3.* The whole bearing of this passage, but more especially the last clause, puts it beyond a doubt that the process of digestion was supposed to be performed, in a certain measure, by the solvent powers of a fluid secreted in the stomach. And the ingenious Alexander Aphrodisieus, in like manner, treating of the digestion of mustard, pepper, and other acrid substances, says decidedly, that their acrimony is dissolved in the copious fluid of the stomach. *Probl. i. 30*: see also Macrobius, *Saturnalia*, lib. vij. 8. He calls it *ventralis humor*. Part of the process was, no doubt, supposed to be performed indirectly by heat; and deservedly, for even Spallanzani was compelled to admit that the comparative temperature of animals exerts a considerable influence on their digestive

powers. Hence, as was stated by Averrhoes, and as is confirmed by Cuvier, birds, which are the warmest class of animals, likewise digest the fastest. At all events, the ancients were all aware that digestion is not a mechanical but a vital process, being performed by the principle of life. "Digestion," says Averrhoes, "is performed by concoction, and the concoction is influenced by heat, not that the first mover in the operation is heat, but the nutritive soul; because the operations of heat are indeterminate, and not directed to any manifest end."

"*Colliget.* v. 3. In the *Averroeanæ*, or Letters from Averrhoes to Metrodorus, the doctrine of a gastric menstruum is discussed with singular ability. Metrodorus states, that 'he found by the writings of the physicians and philosophers of these times, that they make the *menstruum*, as they call it, whereby both appetite is provoked, and the food in the stomach is digested, to be a certain juice or humour in the stomach,' &c. Averrhoes denies that this menstruum acts by its acidity alone."

Mr. Adams has here succeeded in shewing that the ancients made a near approach to the true theory of digestion: it does not appear, however, that they had any notion of the gastric fluid being a secretion from the vessels of the stomach itself. With respect to the precise manner in which this solvent acts on the food, they may fairly be said to have known as much as we do, that is—nothing.

"*On the Characters of the Lungs.* The ancients were of opinion, that the lungs are an accessory organ, made to administer to the heart. 'It is the heart,' says Aretæus, 'which imparts to the lungs the desire of drawing in cold air.'" They, of course, were aware that respiration is the functional office performed by the lungs; and, respecting the uses of this vital process, they were pretty much agreed. Aristotle, indeed, and the older physiologists, taught that refrigeration is the purpose of respiration; but Galen explains that, probably, they were at a loss for a proper term, and used it in the sense of ventilation. Galen, himself, perpetually inculcates, that by respiration the vital heat is regulated, being increased or diminished according to the circumstances of the animal. Another purpose, which he, Haly Abbas, and other ancient physiologists, supposed to be performed by respiration, is the evacuation of the fuliginous vapours of the blood. Galen was aware that respiration produces the same effect upon atmospherical air that combustion does, and that it is equally necessary to the one process and the other. See the treatises of Aristotle and Galen on Respiration, and Haly Abbas, *Theoricæ*, lib. iij. The following extract from Haly contains the summary of what we have been stating: 'Respiration is necessary for the sake of the heart, which is the fountain, and, as it were, the focus of vital heat, whence it is diffused over the rest of the body. It requires some aerial substance to ventilate the heat and ebullition of the heart,

and in order to evacuate the fuliginous vapours which are found in it.'”

If Galen had been aware of the chemical constitution of the atmosphere, and the circulation of the blood, it is very probable that he would have anticipated Dr. Crawford in his theory of animal heat. No higher praise can be accorded to the philosopher of Pergamos, than by saying that his views, on almost every subject, were the best which the state of physical science at the time admitted.

Notwithstanding the confidence with which the modern chemical theory of animal heat has been embraced by some very distinguished physiologists, we are much mistaken if a few years will not find opinions on this subject as unsettled as ever.

“ *On the Temperaments of the Heart.* In the ancient system of physiology, the heart was considered as the seat of the vital powers, its office being the preservation of the innate heat of the body. The philosopher Aristotle had pointed out the connexion between heat and vitality, and had taught that the heart, as being the centre of heat, is the prime organ in the animal frame. Hence, as his commentator, Averrhoes, remarks, it is the *primum movens et ultimum moriens*. Galen however maintained, with Hippocrates, that the animal frame is a circle, having neither beginning nor end, and that, consequently, it has no prime organ. He taught that the brain does not, properly speaking, derive its powers from the heart, nor the heart from the brain; but that these organs are mutually dependent upon one another, the heart being indebted to the brain for supplying the parts concerned in respiration with muscular energy, and the brain being indebted to the heart for its vital heat, without which it could not continue to be the vehicle of sensibility and motion. We have mentioned in the preceding chapter, that the ancient physiologists looked upon respiration as being a process similar to combustion. Agreeably to this idea, they compare the heart itself to a lamp, its vital heat to the flame of the lamp, and the blood to the oil which feeds the flame. See Galenus, *de Usu Respirationis*, Alexander Aphrodisieus, *Probl.* i. 16. The heart, then, was supposed to convey heat to all parts of the body, by means of the animal spirits incorporated with the blood in the arteries. Respecting the contents in the arteries, two hypotheses divided the ancient schools of medicine. The first was that of the celebrated Erasistratus, who maintained that the arteries do not contain a fluid, but merely certain airs or vapours. This hypothesis was revived about seventy years ago by Professor Rosa, in Italy; and lately it found a zealous abettor in my lamented friend, Mr. George Kerr, of Aberdeen. The other hypothesis was that of Galen, who keenly attacked this, as he did most of the tenets of Erasistratus, and endeavoured to prove, by experiment, observation, and reasoning, that the contents of the arteries is blood,

mixed indeed with a certain proportion of heat and airs, but in every respect a fluid, little different from that which is contained in the veins. It was also part of his system, that the right cavity of the heart attracts blood from the liver, and conveys it to the left, from which it is diffused all over the body by the arteries. He taught that, at every systole of the arteries, a certain portion of their contents is discharged at their extremities, namely, by the exhalents and secretory vessels; and that at every diastole a corresponding supply is attracted from the heart. He decidedly inculcates that it is the expansion, or diastole, of the artery which occasions the influx of the blood, and not the influx of the blood which occasions the expansion of the artery. Though he demonstrated the anastomosis of arteries and veins, he nowhere hints his belief that the contents of the former pass into the latter, to be conveyed back to the heart, and from it to be again diffused over the body. Of the greater circulation of Harvey he certainly had no idea. In a word, his system appears to have been nearly, or altogether, the same as that afterwards taught by the unfortunate Servetus.

“In proof of the opinions which I have attributed to Galen, I refer the reader to *An Natura Sanguinis sit in Arteriis, Administ. Anatom.* vii. 15; *de Usu Partium*, lib. vi. and lib. vii., 7, 8, 9; *de Placitis Hippocr. et Plat.* i. 5. See also Averrhoes, *Collegit.* ii. 8, 11, 9, *Collect.* § 1, 9; *In Cant. Avic.* tr. i. p. 1; Avicenna, lib. iii. fen. xi. tr. 1; Actuarius, *de Spiritu Animalis*, p. 1, § 6, *de Causis Urinarum*, ii. 2; Nensesius, *de Natura Hominis*, § 24.

“With regard to the passages collected by the ingenious M. Dutens, from the works of Hippocrates, Plato, Nensesius, Pollux, and Theodoret, to prove that the ancients were acquainted with the circulation of the blood as taught by Harvey, I shall only remark that, after having attentively considered them, I cannot but draw the conclusion that some of these authors must have had, at least, an obscure idea of this doctrine, although in general these passages may be understood to refer merely to the lesser circulation, and the movement of the blood from the centre to the extremities, as maintained by Galen. See Dutens, *Origine des Découvertes attribuées aux Modernes*, p. 157; also Drelincurtius, *de Lienosis Epimetris.*”

All this is very fairly and candidly stated. We trembled lest it should turn out that the circulation had been discovered by Galen or Hippocrates, or perchance by Æsculapius or Hermes Trismegistus; but we are happy to find that Mr. Adams, though evidently like ourselves a “laudator temporis acti,” is nevertheless disposed to concede a few things to the moderns, and is not one of those who believe that the latter half of the world’s history is superfluous, and a mere lame imitation of what went before.

“*On the Temperaments of the Liver.* According to the views of the ancient physiologists, the liver is the seat of the natural

powers, being the grand organ of sanguification, and the blood being the pabulum which nourishes the whole body. That the liver performs an important part in the fabrication of the blood, seems probable from all the veins of the stomach and upper portion of the intestines passing to the liver, whereby it is to be supposed that a considerable proportion of the nutritive juices will be conveyed to it, and from this viscus being proportionally large in the fœtus when it is much required to form blood, and cannot be supposed necessary for any other purpose. In fact, the late experiments of professors Tiedeman and Gmelin seem to prove that the liver is concerned in carrying off the recrementitious part of the blood, or, to use the language of modern chemistry, in decarbonising it. *Recherches Exper. sur la Digestion*. The ancients taught, that the liver, by its attractive power, attracts the chyle from the stomach; that, by its retentive, it retains the same until the alterative convert it into blood; and then the expulsive separates the superfluties of the blood, namely, the bile, and conveys them to the gall-bladder. See Galenus, tom. ij. p. 285. *Ed. Basil.* And Avicenna, lib. iij. fen. 4, tr. 1.

“Aristotle held that the spleen is part of the hepatic system, *de Partibus Animal.* iij. 7. His commentator, Averrhoes, in like manner, considers the spleen as a second liver. *Collect.* i. 9. Their reasoning, on this point, appears to me exceedingly acute and conclusive.”

The second book of Paulus treats at length of febrile affections. The graphic descriptions of pestilential fevers by several ancient historians and physicians are well known, and the *causus* of Hippocrates, so finely illustrated by Aretæus, has been a frequent theme with the medical antiquary. Passing over these, therefore, we extract the remarks of Paulus, on the

“*Diagnosis and Cure of Fevers with an Erysipelatous Affection.* Fevers accompanied with an erysipelatous affection about the viscera, may be known by the vehement effervescence and strong pain in the part, also by the thirst and inordinate burning; in a word, by the symptoms of bitter bile putrefying along with a deficient blood. They are to be treated in this manner: the patient must abstain altogether from the bath, and at the acme of the complaint, use the very coldest water. But it must not be used at the commencement, but cold things are to be applied externally; and if this is not sufficient, they must be taken internally. Lettuces and such like things are particularly befitting. The juice of the lettuce is likewise a seasonable application externally, also that of the house-leek (*semper-vivum*,) and such like cooling things. We may use the following application, which is an excellent one: squeezing out the juice of some cooling thing, we put it into a mortar with purslain, then pound and strain it; at the time of using, we mix a little polenta with it, and place it in cold water to cool it. A piece of cloth folded double is to be put into it, and

afterwards applied to the hypochondrium, and not suffered to remain, but another cold one must be substituted. We sometimes mix the oil of unripe olives."

On this subject Mr. Adams adds the following observations :

" This chapter is mostly taken from Oribasius, *Synops.* vj. 20. On erysipelas of the lungs consult Hippocrates, *de Morbis*, i. 13, and ij. 53. The following are the symptoms of fever connected with erysipelatous inflammation, as detailed by Alexander. The patient experiences thirst more strikingly than in any other case, throws the clothes off his body, has exacerbations every third day, with bilious and ichorous discharges from the bowels; those in whom erysipelatous inflammation is seated in the lungs have not so intense thirst, but breathe thick and large, their cheeks are red, tongue rough, they are delirious, and long rather for cool air, and are more benefited by it than cold drink, which ought rather to be given to those who have erysipelatous inflammation in any other part, whereas those in whom the lungs are affected ought to be supplied with cool air. In ordinary cases, he approves of giving cold water to extinguish the fever, but says that he has seen patients brought to imminent danger by the unseasonable application of cold cataplasms and clysters. Aetius states that fevers are kindled by the parts about the bowels, liver, and lungs, being attacked with erysipelas. Like our author, he approves of cold drink, cool air, and cold applications to the part affected. The acute affection of the vena cava, which is minutely described by Aretæus, ought probably to be ranked with the diseases which we are now treating of. *De Morb. Acut.* ij. 8. He recommends for it venesection and the refrigerant plan of treatment. *Cur. Morb. Acut.* ij. 7. We have stated in the preceding chapter that Palladius refers one variety of ardent fever to erysipelas of the lungs. A similar account of these affections is given by Avicenna, lib. iv. fen. 1, tr. 4, c. 13, 14, 15; and by Rhases, *ad Mansor.* x. 15, *alibique.*

" I can draw no information from modern works to illustrate the opinions of the ancients respecting the febrile affections treated of in this chapter. It does not seem to be suspected now that erysipelas ever attacks the lungs or bowels; and yet, as this disease when it occurs externally is known to be seated principally in the epidemics, and as the epithelium, or membrane which lines the internal cavities, is admitted to be a prolongation of it, (see Kaan Boerhaave, *Perspiratio Dicta Hippoeratis*,) it would seem probable *a priori* that the diseases of both portions of it should be alike. That fevers are often complicated with ardent affections of the lungs and bowels, and bilious appearances, we all admit; and it might be worth while to inquire whether such diseases be of an erysipelatous nature."

The ancient writers appear to have used the term erysipelas in a very vague acceptation, as might indeed be expected, from their want of all defined ideas on inflammation in general. Hippocrates nowhere exactly defines erysipelas, and

his descriptions of this affection, as occurring in particular parts and organs, are too heterogeneous to afford any data for a general definition. Under the name of erysipelas of the lungs, Dr. Huxham thinks that Hippocrates described "inflammations of the mediastinum, pericardium, and membranes of the lungs." (*Dissertation on Pleurisies and Peripneumonies*, c. iv.) The conjecture is probable.

We quote the description given by Hippocrates of erysipelas of the parts about the throat; on comparing which with the treatises of Fothergill and Huxham on the Putrid Sore-throat, it is difficult to avoid believing that this severe disorder, or one very like it, was well known to the Father of Medicine.

"Exulcerations of the fauces attended with fever are of serious portent; but if they be attended with any of the symptoms which we have before pointed out as bad, the patient is to be declared in danger. That form of cynanche is the severest and most speedily fatal, which presents no peculiar appearance either in the fauces or on the neck, but is accompanied with great pain and orthopnoea; it proves fatal, by suffocation, on the first, second, third, or fourth day of the attack. That form of the disease which is attended with similar pain, but also with swelling and redness of the fauces, is very fatal, but longer in its course than the last mentioned, if the redness be vivid. Of still longer duration is the case in which the redness appears not only in the fauces, but on the neck, and patients thus affected generally recover, if the erysipelas continues on the neck and chest, and does not return inwards."—(*Lib. Prænot. ed. Foesii*, p. 45.)

Hippocrates describes what he calls erysipelas of the uterus, in the book *de Natura Muliebri*, ed. Foes, p. 567, and that *de Morb. Mulier.* p. 663, in both which places, as also in the *Aphorisms*, lib. v. 43, he states that it is always fatal when it occurs in a pregnant woman. These descriptions are to us unintelligible; we have no idea what disease is meant to be delineated.

Galen has described erysipelas accurately as it appears on the surface, and inculcates its connexion with disorder of the biliary system, (*ad Glauc.* lib. ii.) On the whole, it is probable that the fevers connected with erysipelas, here mentioned by Paulus, were nothing more than those accompanied with common visceral inflammation. Mr. Adams is correct in stating that erysipelatous affections of internal parts have not been sufficiently attended to by modern writers. Frank alludes to this kind of inflammation in the membranes of the brain and spinal cord, but does not tell us by what peculiar symptoms it is indicated. (*De Curand. Hom. Morb.*, lib. ii. p. 51.) It is not improbable that the inflammatory affections

of internal organs, accompanying fevers of an asthenic type, may sometimes partake of this nature. Dr. Douglas believes the worst form of puerperal fever to be connected with erysipelalous inflammation of the peritoneum; and Huxham, an author whose acute observation and sound judgment entitle all that he says to attention, states, when speaking of malignant fevers, that "an itching, smarting *red rash* commonly greatly relieves the sick; and so do the large, fretting watery bladders, which many times rise up on the back, breast, shoulders," &c. (*Essay on Fevers*, c. viii.) This relief may possibly arise from the metastasis of internal erysipelas to the surface.

The occasional extension of erysipelas of the head and face to the parts within the cranium, affords an opportunity of studying the symptoms of this form of inflammation when it attacks an important internal organ.

In an appendix to his commentary on the second book of Paulus, Mr. Adams introduces an interesting account of *smallpox* and *measles*, as described by the Arabian writers, maintaining correctly that it is to them we are indebted for the earliest notice of these diseases.* We regret that our limits will not allow us to enter into this subject. We may remark, in passing, that Avicenna affirms that smallpox may occur twice in the same individual. "Et multoties quidem variolatur homo duabus vicibus, quando aggregatur materia ex expellendum bis." (*Canon.*, lib. iv. tr. 4, c. 6.)

Measles (*morbilli*) were confounded with smallpox even as late as the time of Sydenham. We do not know when the vernacular term *measles* began to be applied to this disease: we learn, however, from old John of Gadesden, who wrote early in the fourteenth century, that the term was in use in his day, but applied to a different affection: "Sicut autem punctilli duplices magni et parvi; de parvis dictum est. Magni sunt infectiones latae, rubrae, et obscurae, apparentes in tibiis pauperum, et consumptorum, ad ignem sine calceis continue fere sedentium; et vocatur Anglice *mesles*." (*Rosa Anglica*, p. 1041, ed. Schopfi, 1595.)

The third book of Paulus is tolerably comprehensive, treating "of topical complaints, beginning with the head and ending with the toes."

The chapter on *headach* is worthy of attention, as presenting one of the few instances in which the ancients attributed diseases of distant organs to sympathy with the stomach; a doctrine which has communicated a new aspect to the medical theory and practice of the present day.

Among the remedies for this complaint we may mention one recommended by Scribonius Largus, which is absurd

enough in itself, but is remarkable as the first instance on record of the application of *galvanism* to medicine. “Capitis dolorem quamvis veterem et intolerabilem, protinus tollit, et in perpetuum remediat *torpedo viva nigra*, imposita eo loco qui in dolore est, donec desinat dolor, et obstupescat ea pars: quod quum primum senserit, removeatur remedium, ne sensus auferatur ejus partis, &c. (*De Composit. Medicament. c. 1.*) This prescription, like many others of Scribonius, has been copied nearly verbatim by that most impudent of plagiaries, Marcellus Empiricus. Scribonius seems to have been very partial to black torpedos: he recommends their application to the feet in gout. (*Op. citat. c. 41.*)

Mr. Adams has a long and interesting note on *the diseases of the eye*. He remarks, however, with his usual partiality, “One may venture to affirm that, whoever will carefully study the works of all the ancient authors referred to above, will find every subject connected with diseases of the eye treated of so fully and judiciously, that he will not stand much in need of consulting modern writers for additional information.”—Really this is too much!

“Quodcumque ostendis mihi sic, incredulus odi.”

If there be a department of the healing art in which real knowledge is almost exclusively of modern acquisition, it is ophthalmic surgery.

We applaud Mr. Adams's endeavours to familiarise the writings of the ancients, whom none can hold in higher estimation than ourselves; but any attempt to set them up as guides to modern practice, is, in effect, only to throw ridicule on the study of their works; which, if taken as practical guides, would inevitably subject us to frequent indictments for *mala praxis*, to say nothing of occasional visits to the Old Bailey on charges of manslaughter. We do not deny that many valuable practical hints may be obtained from them; but we must repeat, that the chief use of ancient medical literature is to expand our views by throwing light on the history of the art and the progress of human knowledge. It is a study, of which it may in an especial manner be said, “*Quamvis non faciat medicum, aptiorem tamen medicinæ reddit.*”

We now take leave of Mr. Adams, with the hope that the remaining part of his undertaking may be as successfully achieved as the first; and that his elaborate and useful work may obtain the place which it so justly merits in the library of every practitioner who is interested in the history and literature of his profession.

The Cyclopædia of Practical Medicine. Edited by JOHN FORBES, M.D., ALEXANDER TWEEDIE, M.D., and JOHN CONOLLY, M.D. Part XX.—London, 1834. 8vo. pp. 128.

THE present number commences with an article by Dr. CARSWELL, on *the Softening of Organs*. He is of opinion that the perforation of the stomach, which has been elevated into the rank of a new disease by the French pathologists, is in fact caused by the gastric juice after death. He says:

“From all the facts brought forward on this part of our subject the following principles may be established:

“1st. That the softening, erosion, and perforation of the walls of the stomach, attributed by the greater number of pathologists to morbid conditions of this organ, may be produced, whatever may be their form, degree, extent, or situation, by the gastric acid.

“2d. That no pathological condition of the stomach or of any other organ is necessary to the production of these lesions.

“3d. That all of them are met with in individuals who, in the full enjoyment of health, are suddenly deprived of life; and in those who die from various diseases.

“4th. That all of them are met with, after death, in healthy and diseased stomachs, which contain gastric acid.

“5th. That they are produced by introducing this fluid into a healthy dead stomach.

“6th. That the varieties observed in the form, degree, extent, and seat of these lesions, depend on modifications of the gastric acid, the action of which on the stomach is regulated by a certain number of physical conditions in which this organ may be placed.

“7th. That softening, erosion, and perforation from the action of the gastric acid, are observed in other organs besides the stomach, viz. in the œsophagus and intestines, from the direct communication which exists between them and the former organ; and in the peritoneum, liver, spleen, diaphragm, pleuræ, and lungs, in consequence of the perforation of the stomach and œsophagus.

“8th. That all these lesions of the stomach, intestines, and of the other organs, are produced after death.” (P. 20.)

We next come to a paper by Dr. PRICHARD, on *Somnambulism and Animal Magnetism*: it is well written; but, as we are about to notice Mr. Colquhoun's book on this subject, we shall indulge ourselves with only one extract, describing a most singular case of ecstasis.

“A gentleman, about thirty-five years of age, of active habits and good constitution, living in the neighbourhood of London, had complained for about five weeks of slight headach. He was feverish, inattentive to his occupations, and negligent of his family. He had been cupped and had taken some purgative medicine, when he was visited by Dr. Arnould, of Camberwell, who has favoured us with the following history. By that gentleman's advice he was sent to a private asylum, where he remained about two years; his

delusions very gradually subsided, and he was afterwards restored to his family.

“The account which he gave of himself was almost verbatim as follows. We insert the statement as we received it from his physician. ‘One afternoon in the month of May, feeling himself a little unsettled and not inclined to business, he thought he would take a walk into the city to amuse his mind; and having strolled into St. Paul’s Church-yard, he stopped at the shop-window of Carrington and Bowles, and looked at the pictures, among which was one of the cathedral. He had not been long there before a short grave-looking elderly gentleman, dressed in dark brown clothes, came up, and began to examine the prints, and occasionally casting a glance at him, very soon entered into conversation with him; and, praising the view of St. Paul’s which was exhibited at the window, told him many anecdotes of Sir Christopher Wren the architect, and asked him at the same time if he had ever ascended to the top of the dome. He replied in the negative. The stranger then inquired if he had dined, and proposed that they should go to an eating-house in the neighbourhood, and said that after dinner he would accompany him up St. Paul’s: ‘it was a glorious afternoon for a view, and he was so familiar with the place that he could point out every object worthy of attention.’ The kindness of the old gentleman’s manner induced him to comply with the invitation, and they went to a tavern in some dark alley, the name of which he did not know. They dined, and very soon left the table, and ascended to the ball just below the cross, which they entered alone. They had not been there many minutes, when, while he was gazing on the extensive prospect, and delighted with the splendid scene below him, the grave gentleman pulled out from an inside coat-pocket something like a compass, having round the edges some curious figures; then having muttered some unintelligible words, he placed it in the centre of the ball. He felt a great trembling and a sort of horror come over him, which was increased by his companion asking him if he should like to see any friend at a distance, and to know what he was that moment doing, for if so, the latter could show him any such person. It happened that his father had been for a long time in bad health, and for some weeks past he had not visited him. A sudden thought came into his mind, so powerful that it overcame his terror, that he should like to see his father. He had no sooner expressed the wish than the exact person of his father was immediately presented to his sight on the mirror, reclining in his arm-chair, and taking his afternoon sleep. Not having fully believed in the power of the stranger to make good his offer, he became overwhelmed with terror at the clearness and truth of the vision presented to him; and he entreated his mysterious companion that they might immediately descend, as he felt himself very ill. The request was complied with; and on parting under the portico of the northern entrance, the stranger said to him, ‘Remember, you are the slave of the man of the

mirror!' He returned in the evening to his home, he does not know exactly at what hour; felt himself unquiet, depressed, gloomy, apprehensive, and haunted with thoughts of the stranger. For the last three months he has been conscious of the power of the latter over him.' Dr. Arnould adds, 'I inquired in what way his power was exercised? He cast on me a look of suspicion mingled with confidence; took my arm, and, after leading me through two or three rooms, and then into the garden, exclaimed, 'It is of no use, there is no concealment from him, for all places are alike open to him, he sees us and he hears us now.' I asked him where this being was who saw and heard us? He replied, in a voice of deep agitation, 'Have I not told you that he lives in the ball below the cross on the top of St. Paul's, and that he only comes down to take a walk in the church-yard and get his dinner at the house in the dark alley. Since that fatal interview with the necromancer,' he continued, 'for such I believe him to be, he is continually dragging me before him on his mirror, and he not only sees me every moment of the day, but he reads all my thoughts, and I have a dreadful consciousness that no action of my life is free from his inspection, and no place can afford me security from his power.' On my replying that the darkness of the night would afford him protection from these machinations, he said, 'I know what you mean, but you are quite mistaken. I have only told you of the mirror, but in some part of the building which we passed in coming away, he shewed me what he called a great bell, and I heard sounds which came from it, and which went to it; sounds of laughter, and of anger, and of pain; there was a dreadful confusion of sounds, and as I listened with wonder and affright, he said, 'This is my organ of hearing; this great bell is in communication with all other bells within the circle of hieroglyphics, by which every word spoken by those under my control is made audible to me.' Seeing me look surprised at him, he said, 'I have not yet told you all; for he practises his spells by hieroglyphics on walls and houses, and wields his power, like a detestable tyrant as he is, over the minds of those whom he has enchanted, and who are the objects of his constant spite, within the circle of the hieroglyphics.' I asked him what these hieroglyphics were, and how he perceived them? He replied, 'Signs and symbols which you in your ignorance of their true meaning have taken for letters and words, and read as you have thought: Day and Martin and Warren's blacking. Oh! that is all nonsense! they are only the mysterious characters which he traces to mark the boundary of his dominion, and by which he prevents all escape from his tremendous power. How have I toiled and laboured to get beyond the limits of his influence! Once I walked for three days and three nights, till I fell down under a wall exhausted by fatigue, and dropped asleep; but on awakening I saw the dreadful signs before my eyes, and I felt myself as completely under his infernal spells at the end as at the beginning of my journey.'

“It is probable that this gentleman had actually ascended to the top of St. Paul’s, and that impressions there received being afterwards renewed in his mind when in a state of vivid excitement, in a dream of ecstatic reverie, became so blended with the creations of fancy as to form one mysterious vision, in which the true and the imaginary were afterwards inseparable. Such at least is the best explanation of the phenomena that occurs to us.” (P. 37.)

DR. BISSET HAWKINS, in an article on *Medical Statistics*, says, “The proportion of births to a marriage fluctuates in different countries: in England it is about four births to a marriage; at Paris the proportion is scarcely 2.44 births to a marriage; while in some villages in Scotland it is so high as seven.” We doubt if the proportion varies much in different countries, though it may in different towns or villages. Throughout Europe, we believe, the proportion is four and a fraction to a marriage; it is the fraction only which varies.

DR. WILLIAMS has an account of the *Stethoscope*, considered as an instrument; the diagnostic signs derived from it having been discussed under the head *Auscultation*. The following remarks will interest many of our readers:

“Our limits do not permit us to describe other forms of stethoscopes that are to be met with. In all those which we have seen acoustic rules are sacrificed to portability or elegance. That of M. Piorry, which is commonly used, is faulty in having the conducting power of the wood impeded by screws and a thick cap of ivory; besides which, the excavated end is generally very ill fitted. Although, when unscrewed, more portable than the other instrument, the trouble of screwing and unscrewing the several parts is enough to counterbalance this advantage. Our friend Dr. Stroud uses a caoutchouc tube, with an ivory funnel attached, like the flexible hearing-trumpet. The flexibility of this instrument is certainly an advantage, but it is obtained at a great sacrifice of intensity and distinctness of the sounds, in consequence of the imperfect and irregular reflecting power of the interior of the tube. This flexible stethoscope separates the sound from the impulse of the heart more completely than any other. Although, for general purposes, the common stethoscope fulfils sufficiently well its triple office, it might be well for the attainment of greater accuracy in physical diagnosis, if auscultators in hospitals would use separate instruments for the three classes of signs. 1. A solid cylinder of wood for the auscultation of the heart. 2. A metallic tube, half an inch in diameter, furnished with a wood or ivory ferule at the pectoral, and an ear-piece at the other end, for the investigation of the respiration and vocal resonance of small spots. 3. A metallic tube, like the last, but with its pectoral end expanded into a tapering cone, for the same purposes as the stethoscope without the stopper. After a little practice, we have little doubt that these

instruments would be more powerful aids than the common stethoscope, but we do not pretend to recommend them for general adoption." (P. 68.)

Dr. A. T. THOMSON, in a judicious paper on *Stimulants*, recommends the use of the ioduret of iron. After observing, that the iodurets of mercury and lead must be given even in smaller doses than iodine itself, he says :

"On the other hand, the combination with iron, which was introduced to the notice of the profession by the writer of this article, diminishes the irritative action of the iodine, whilst the iron being rendered soluble, and in a state to be readily converted into the protoxide, is carried into the habit with the iodine, and aids its deobstruent influence by giving tone and support to the system.* It is admirably adapted for chlorotic affections, and cases of glandular obstructions, connected with diminished power and a leucopneumatic state of the habit. On account of its deliquescent property it cannot be administered in substance; and when dissolved it is converted into a hydriodate, in which form it may be administered in doses of from two to six grains three times a day. The influence of both its components is rapidly visible on the habit by the improved colour of the skin, the increase of appetite, exhilarated spirits, and invigorated strength of the patient; and so quickly does it get into the system, that in twenty-four hours after the first dose has been taken, both the iron and the iodine can be detected in the secretions. It is incompatible in prescriptions with alkalies and their carbonates; the metallic salts; all vegetable infusions and decoctions containing tannin and gallic acid; the preparations of opium, henbane, and conium; the alkaloids and their salts, and chlorine. It has one advantage over all the other preparations of iodine, it does not produce emaciation, or that wasting of glandular bodies, which renders the closest watchfulness requisite in their administration." (P. 79.)

Several other articles merit commendation; and, on the whole, this number is a good one.

We must not omit to mention, that the editors say that a fourth volume "is found necessary to the completion of the undertaking." Thus it is that the illaudable practice of publishing books in fragments leads to prospectus-breaking.

* "The ioduret of iron is prepared by placing one part of soft tempered iron-wire in a hollow porcelain vessel with a considerable quantity of distilled water, and adding five parts, by weight, of pure iodine, and then subjecting the mixture to heat, constantly stirring until the solution is accomplished and the liquid is nearly clear. The solution is then to be filtered and immediately evaporated to dryness in a flask, which must be broken as soon as the ioduret has crystallized, and the preparation directly put into a well-stopped phial. It is a proto-ioduret, containing one equivalent of each of its components. When well made, and well preserved from the air, it dissolves entirely, and affords a pale greenish-yellow solution; but when not well preserved from the air, a portion of the iron is converted into the peroxide of the metal, and a sesqui-ioduret is formed, so that when it is rubbed up with water the peroxide remains insoluble."

Die Geburtshülflche Exploration. Von Dr. ANTON FRIEDRICH HOHL, ausserordentlichem Professor an der Universität zu Halle. *Erster Theil: Das Hören.*—Halle, 1833.

On Obstetric Exploration. By Dr. HOHL, Extraordinary Professor in the University of Halle. *Part the First: On Hearing.*—Halle, 1833. 8vo. pp. 314.

In studying obstetric auscultation, a department of the art of medicine which is confessed on all hands to be very difficult, and is thought by many to be very dubious, it is satisfactory to have the testimony of a witness like the author before us, who is not content with giving his conclusions, but details in the minutest manner the facts upon which they are founded. We have therefore thought it our duty to give a succinct abstract of the work before us, which bears every mark of being the composition of a faithful and zealous observer.

Passing over a good deal of prefatory matter, we come to a chapter entitled “Results of Auscultation in Healthy Women not Pregnant, in Lying-in Women, and in some diseased States of the Abdomen.” In some women, says our author, nothing is to be heard but the rolling of gaseous or other fluids; in others, (but they are a minority,) a pulsation is to be heard at the summit of the abdomen, belonging rather to the heart than to the aorta. There is no *soufflet*, however, but a pulsation isochronous with the beating of the heart; the beats are sharply broken off, and no whirring is to be heard between them. In the right part of the upper region of the abdomen, at the left lobe of the liver, a beating may also be heard: this belongs to the *tripus Halleri*. At the lower and left side of the abdomen another pulsation may be perceived, accompanied by a *soufflet*: this may proceed from the left iliac artery. It is probably caused by the left iliac artery lying under the vein of the same name. The sound is not heard on the right side.

The flow of the catamenia produces no change in these sounds, nor is any alteration caused by pressing the abdominal parietes.

In lying-in women the above-mentioned pulsations can be perceived, but there is another one in addition. When the uterus is very high up, or even if it is in its ordinary situation, but has not yet perfectly contracted; and there are strong after-pains, a faint humming sound can be heard in that part of the uterus where there was a strong *soufflet* during pregnancy and parturition; this is almost imperceptibly increased at each beat of the pulse, and follows each pulsation of the heart for an instant.

When there is disease in the abdomen, these rules of course no longer hold good.

When, for instance, the liver was very much enlarged, Dr. Hohl found a pulsation in the right hypochondrium isochronous with the beating of the heart, and the intervals between each beat were filled up with a faint, uniform, obscure soufflet. In a case of fungus medullaris, filling up the whole epigastric region, several mesenteric glands were much enlarged; there was a great accumulation of fæces from obstinate costiveness, and the abdomen was very tense. Here Dr. Hohl was not able to hear the sounds above described; for, to use his own words, "es herrschte eine Todtenstille in der Todbringenden Höhle:" *i. e.* the stillness of death reigned in the death-producing cavity.

In a case of degeneration of the left ovarium, which was taken for pregnancy, our author was unable to hear the pulsation of the iliac arteries. The pulsation of the heart and the cœliac artery could be heard, but not so distinctly as in healthy persons.

In ascites accompanied by tympanites, when our author applied the stethoscope, and gently struck the opposite side, a sound was produced not unlike that of a distant drum. If the abdomen is struck more forcibly, the fluctuation of the water causes a sound something like snoring. The normal sounds are either not heard at all, or there is merely a faint pulsation of the iliac artery.

In aneurism of the aorta there is a strong pulsation and a soufflet. This soufflet, however, is monotonous, and especially perceptible on the left side.

We now arrive at the phenomena which occur in the auscultation of pregnant women.

There are two pulsations peculiar to the gravid state: the one is isochronous with the woman's pulse, the other is much quicker. The first, while it resembles the ordinary pulse in frequency, differs from it in the quality of sound; the latter, on the contrary, has more resemblance to an adult's pulse, excepting in its frequency. It is dicrotic, or doubly beating, and one may count 216, 240, 244, 256, 260, 268, 272, very often 280, not unfrequently 320, 326, nay even 350 single beats; or, what is the same thing, 108, 120, 122, 128, 130, 134, 136, 140, 160, 163, or 175 double beats. This is the fœtal pulse, and its presence or absence determines the life or death of the fœtus.

The isochronous, or placental pulsation, is usually to be heard at the upper and back part of the uterus, especially in first pregnancies. The dicrotic pulse is generally heard

towards the left side of the uterus. The placental pulsation has never been heard by Dr. Hohl before the fourth month: it is then much diffused, but in the fifth month becomes concentrated in a single spot. As pregnancy advances, it often becomes weaker and weaker, but never disappears entirely. Nor has our author ever heard the dicrotic pulse before the fourth month; even in the fifth it is weak, and does not become very plain till about the end of the sixth month. In some cases Dr. Hohl could not hear it a short time before the commencement of labour, and in others it disappeared earlier, and in one case it was imperceptible for four weeks before delivery.

The placental pulsation is isochronous, as has been already stated, with the mother's pulse, while the dicrotic pulse is uninfluenced by it.—Our author gives a number of cases to prove this, but we shall content ourselves with quoting the first two.

1. The radial pulse of a pregnant woman was 67 in the horizontal position, 74 when she sat up, and 94 when she stood. The same alterations took place in the placental pulsation, but the dicrotic pulse remained without variation at 140 double beats.

2. The radial pulse of another pregnant woman was 104 when she stood, from 88 to 90 when she sat, and 82 in a horizontal posture. The placental pulsation participated in these changes, but the dicrotic pulse always remained at 132 double beats.

Dr. Hohl, however, is of opinion that the temperature of the mother exercises an influence on the fœtal pulse, the beats being more numerous in proportion to the increase of the heat; and he inserts a long table of observations to prove this. Moreover, when the function of respiration is injured, and the arterialization of the blood is in consequence diminished, the dicrotic pulse loses in frequency. This is especially the case in the earlier months of pregnancy,—that is to say, from the fifth to the eighth month. And hence the diseases of the mother will affect the dicrotic pulse, or not, according to their nature. Thus, in cases of rheumatic fever, or of rheumatism affecting the muscles of the head, abdomen, or extremities, no alteration was perceptible in the dicrotic pulse; but, where the muscles of the chest were affected, or when it was a case of pleurisy; in short, when respiration was encroached upon, this pulse became feebler and slower. The following case is a remarkable one:

A woman of disordered mind had made attempts to strangle herself, so that blood had flowed from her mouth and nose,

and the sugillation caused by the cord was visible on her neck for days afterwards; the same night she threw herself into the water, and was restored to sensation with some difficulty. In this case auscultation was the means of consoling the mother, by affording the certain assurance that the child was still alive.

When the stethoscope is applied during labour, a great variety of tone is detected in the placental pulsation: it is stronger, and this increase of energy is especially perceived just before the commencement of a pain. This does not augment the frequency of the dicrotic pulse, nor is this altered by the increased temperature of the woman during labour. Thus, Dr. Hohl found that in several women, between the first stage of labour and the end of the third, the temperature rose to 32° of Reaumur ($= 104^{\circ}$ of Fahr.), and their pulse became 116, 120, or 124; but the dicrotic pulse kept steadily at 276. In others, in whom the temperature during the third stage of labour was 31° of Reaumur ($= 101\frac{1}{2}$ of Fahr.) and the pulse 112 or 116, the dicrotic pulse was from 280 to 288. The placental pulsation varies with the pains, attains its acme with them, and diminishes in frequency as they gradually go off: and thus the placental pulsation, or, what comes to the same thing, the radial pulse, denotes the character of the pains by its regularity or irregularity, by its attaining or not attaining the desirable frequency, and so on.

Dr. Hohl gives numerous examples of the character of the pains, as indicated by the pulse. The following was an instance of regular pains, and the numbers denote the beats of the pulse, and the placental pulsation, in each quarter of a minute.

C. Albrecht. At the beginning of the second stage of labour: 27. 27. 27. 27. | 27. 28. 28. 30. | 31. 33. 31. 31. | 30. 28. 27. 27. | 27. 28. 30. 32. | 32. 33. 31. 30. | 30. 30. 28. 27. | 27. 27. 27. 27. | 27. 27. 27. 27. | 27. 28. 30. 33. | 31. 28. 27. 27. | 27. 27. 27. 27.—27. 27. 27. 27. | 27. 26. 26. 27. | 27. 27. 27. 26. | 26. 27. 27. 27. | 29. 30. 32. 32. | 30. 28. 27. 27. | &c.

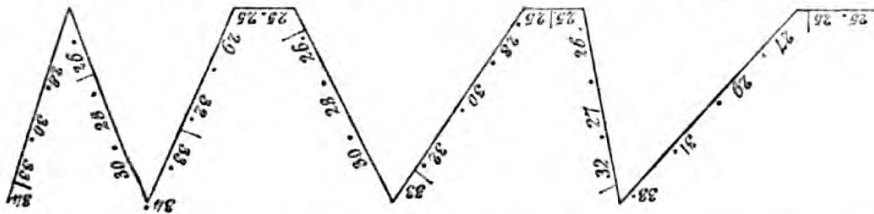
In the middle of the second stage of labour: 27. 27. 27. 27. | 27. 29. 29. 30. | 31. 31. 29. 27. | 27. 27. 27. 27. | 27. 27. 27. 27. | 27. 27. 27. 28. | 29. 30. 31. 31. | 32. 29. 28. 27. | 27. 27. 28. 29. | 27. 27. 27. 28.—28. 28. 29. 30. | 31. 33. 29. 27. | 27. 27. &c.

At the end of the second stage: 28. 28. 29. 30 | 31. 28. 27. 27. | 28. 29. 30. 30. | 28. 28. 27. 27. | 27. 29. 30. 31. | 33. 29. 28. 27.

The pains were regular, but did not follow one another too

rapidly, and they lasted for a tolerable time. As long as the pulse was only 27 in a quarter of a minute, the woman was perfectly quiet, and she was tranquil even when the number was 28. At this point the moaning began; at 28 the bag of membranes was slightly advanced, but did not become quite tense till the pulse was 31 or 33 in the quarter of a minute.

We cannot afford room to quote the other cases, but will just mention that Dr. Hohl has constructed some diagrams of very quaint appearance, to shew the pulsations accompanying regular and irregular pains. The following diagram, for instance, exhibits the state of the pulse when the pains are too rapid and stormy, and allow the woman no repose:



Dr. Hohl speaks favourably of the *secale cornutum*: he finds that, after a few doses, of ten grains each, the placental pulsation is increased both in strength and frequency. The *secale*, however, must not be old, and must have been well kept.

Dr. Hohl deduces the facts that the *soufflet* belongs to the placental pulsation, and the dicrotic pulse to the fœtus, from a great number of facts and arguments. Thus, to confine ourselves to the former point, the *soufflet* is never heard in those who are not pregnant, and always heard in those who are; it is generally on the right side, rarely on the left, and still more rarely at the lower part of the uterus; thus following the more usual positions of the placenta. When, however, the placenta presents, the pulsation is heard at the lower part of the uterus; but it is fainter in this case, as this part of the womb is less strong, and so likewise are the vessels belonging to it. This is a very interesting part of Dr. Hohl's work, but to give an analysis of it would lead us beyond all reasonable limits, and we must therefore content ourselves with referring our readers to the original, p. 141-181.

We now come to our author's account of the advantages to be derived from auscultation in the practice of midwifery. The first point achieved by auscultation is the determining cases of doubtful pregnancy. In discussing the uncertainty of the ordinary signs, Dr. Hohl narrates a very remarkable case, which we shall endeavour to abridge. A servant girl

complained of morning sickness, want of appetite, lassitude, and absence of the catamenia. A physician was called in, who did not examine her, as he was quite satisfied that she was pregnant, particularly as the breasts had now increased in size, and become painful. Additional symptoms soon made their appearance; she complained of bearing down, and shooting pains in the lower part of the pelvis. The physician now made an examination, and, finding the abdomen distended, the vulva like that of a pregnant woman, the os uteri round, and the uterus larger, he again affirmed it to be a case of pregnancy. The girl, being dismissed from her place, was brought to Dr. Hohl, and confessed that the breasts were larger than formerly, and the areola darker. On examination, the external marks of virginity were present; the os uteri was almost round, and not perfectly closed. From these, and a number of other signs, as well as from auscultation, our author pronounced it to be a case of retroversion and descent of the uterus, accompanied by an inflammatory state, with swelling, and commencing induration.

The treatment consisted in cold injections, and the following powder at night: R. Opii, gr. ss.; Camphoræ, gr. ij.; Potassæ Nitr., gr. iij.; Sacch. albi, ℞ss. In a week the patient was considerably relieved, and went back to her former situation. The catamenia now returned, and no one ventured to talk of pregnancy.

Dr. Hohl mentions a case which occurred in 1824, in which Lenormand, by means of the stethoscope, detected a pregnancy, which up to the seventh month was supposed to be a scirrhus of the right ovary.

The next point to be ascertained by the stethoscope is the number of children contained in the uterus: when there are twins, the placental pulsation is far more diffused than usual, and when there are triplets, the sound extends over a still greater space. Dr. Hohl has stethoscopized one case of triplets, and observes that he could tell that there were more than two fœtuses, but could not tell exactly how many; just as, if we listen to the ticking of two watches, we can tell that there are two, but, if a third is added, we can distinguish that there are more than two, but not how many more.

Auscultation is also capable of distinguishing extra-uterine pregnancy. This may be of two kinds. The first is when it exists in the ovarium, the fallopian tube, or the substance of the uterus; the second is when its seat is in the abdomen. But, supposing it to belong to the first class, auscultation will not farther inform us to which subdivision it must be referred.

The existence of pregnancy in the substance of the uterus has been attested by Schmitt, Hederich, Albers, Carus, and Breschet, (*Medico-Chirurg. Transact.*, vol. xiii. part i. p. 33); and some light seems to be thrown upon its progress by a case given by Baudelocque. A woman, who had never had children, died of pleuro-pneumonia in her fifty-third year, and he found a canal in the substance of the uterus, which communicated above with the right fallopian tube, and below with the neck of the uterus. As a placenta is formed in cases of extra-uterine pregnancy, they will be discovered by the usual soufflet being heard in an unusual situation.

As the accoucheur improves in obstetric auscultation, he will be enabled to ascertain the exact position of the foetal heart, and to deduce from it the position of the head, &c. This is theoretically done by our author with great ingenuity, p. 236-252; but we must confess that the diagnosis seems to us to be a matter of such exquisite nicety, that we fear that centuries of obstetric stethoscopy, or rather cœloscopy, must pass away, before these refinements can be relied upon in practice.

It has always been a desideratum to determine the life or death of the foetus during childbirth, chiefly of course with reference to the dreadful operation of embryotomy. The occasional fallacy of the ordinary tests of the death of the foetus is known to every one; perhaps auscultation may furnish a better diagnostic sign. Dr. Hohl lays down the following rule: The foetus is dead, if the placental pulsation is very faint, or altogether inaudible; if the beating of the foetal heart cannot be heard in any part of the abdomen, not even when the pregnant or parturient woman is placed in every possible position; and if a deep stillness reigns in the lifeless uterus. Dr. Hohl then considers auscultation in reference to some operations; namely, the bringing on premature delivery, perforation, the Cæsarean operation, turning, and the application of the forceps. He then has a few remarks on the advantages to be derived from auscultation in the treatment of the placenta: when it is retained, the soufflet will point out its exact situation. Dr. Hohl has injected aqua oxymuriatica (solution of chlorine) into the uterus to induce its contraction in cases of hemorrhage and retained placenta. This injection must, we fear, be a very dangerous one; it can hardly be justifiable to introduce a powerful stimulant into the uterus at a time when it is already so prone to inflammation.

Dr. Hohl concludes with some observations on the use of

auscultation in cases where the newborn child is apparently dead.

The present work is to be followed by two more, on other branches of obstetrical exploration. Should they be equal to the one of which we have just given an imperfect sketch, they will be alike useful to the profession, and honourable to their distinguished author.

A Treatise on Diseases and Injuries of the Nerves. By JOSEPH SWAN. *A new Edition, very considerably enlarged.*—London, 1834. 8vo. pp. 356, and ten plates.

IN our last number we had the pleasure of giving some account of Mr. Swan's method of demonstrating the nerves of the dead; we have now the greater satisfaction of analysing his treatise on those morbid affections whose seat is in the nerves of the living. In this, as in the former work, Mr. Swan, to use a familiar expression, is quite at home, and every page shews the mastery of a great subject which may be attained by an acute mind studying it through a long series of years, with an attention proportioned to its importance. Our author's style is that of a man who can well afford to despise ornament; it is characterised by an antique simplicity, the internal evidence of the accuracy of the facts narrated. This excellent treatise is indispensable to every one who wishes to acquire a sound knowledge of the subject to which it relates; nor will the future historian of the diseases of the nerves, however brilliant his talents, however vast his acquirements, be justified in passing over the researches of Mr. Swan: it will be long indeed before they are obsolete.

The first chapter treats "of painful affections of nerves in general," and commences in the following manner:

"The nerves most subjected to painful affections are the fifth, and those arising from the whole length of the spinal chord. It may be expected that I should state whether pain be felt only by the posterior bundles of the spinal nerves, which have been termed sensitive, and not by the anterior, or those termed muscular. When a muscular nerve is irritated, an immediate contraction of the corresponding muscle takes place; it must therefore be endowed with perceptibility; but whether this be cognizable by the mind as a sensation in the common acceptation of this quality, is very difficult to determine; nor is it less so whether its morbid condition be productive of pain. The facial portion of the seventh pair of nerves conveys the power of action to many of the muscles of the face, but is subjected to painful sensations. Experiments

on the par vagum have given rise to various opinions. When this nerve has been either divided or inclosed in a ligature, the animals have expressed the most uncomfortable sensations, but whether these have been feelings of ordinary pain, or only suffocation, I cannot determine; but it may have been either one or the other, as its disorder produces a sense of suffocation in the lungs and pain in the stomach. The morbid condition of a single nerve, and particularly of part only of its origin, can seldom come under the consideration of the pathologist; for, almost as soon as it has left the brain or spinal chord, it has either communicated or become intermixed with other nerves. When it has been affected at its seat in the brain, some other portion of this organ, besides the precise spot giving origin to it, has been implicated in the disease. Experiments for determining the sentient qualities of nerves have not been so satisfactory as to have carried conviction to the minds of unbiassed persons; for, when animals of the same species have been subjected to the same treatment, one has expressed the keenest suffering, whilst another has been altogether unmoved. But observe what takes place on the performance of an experiment. Incisions are made through sensitive parts: these are forcibly retracted for allowing the separation of the specific nerve from its surrounding connexions, and the state of the wound is momentarily varying, so that, when the nerve itself is irritated, it is impossible in many instances for the most candid observers to form a correct judgment." (P. 1.)

It is difficult, we think, to determine whether it is really the facial portion of the seventh pair of nerves which suffers pain, as it always has filaments of the fifth pair distributed with it, and running in the same sheath. The observations in the text on the doubtful results of experiments are extremely just, and shew especially how little value can be attached to negative evidence in cases of this kind; but it is obvious that even the affirmative results may be obscured by "the state of the wound," and other circumstances.

Our author observes shortly afterwards, "In one of the cases of a wounded thumb, related in the chapter on partial division of nerves, motions could be observed in different parts; and, from the description of the patient, I cannot help thinking that what she called spasms were contractions of the nerves producing shocks. These motions are not always attended with pain; but I conceive that contractions of the nerves may take place and produce pain, in the same manner as those of the muscles during their violent action in cramp or tetanus." (P. 5.) We should rather suppose these motions, as well as a quivering of the cutaneous nerves underneath the skin or the outside of the leg, of which our author speaks, to depend on an undulation of the nerves; or, if the

nerves circulate a fluid, as some have plausibly conjectured, these phenomena might arise from their distension.

The following observations on intermittent neuralgia are judicious and instructive:

“Pain affecting the nerves comes on in momentary shocks at irregular periods, but in some cases begins at one particular hour, and is continued for a longer or shorter period. When it comes on regularly, it is presumed, from its similitude to the return of ague, that it is not an affection of the nerves, but this is a mistaken notion; it is, however, a curious circumstance, and worthy of due consideration. The following case shows that it may be entirely owing to the irritation of a nerve:

“CASE. Charles Chelsop, aged thirty years, was admitted into the Lincoln County Hospital, on the 14th of August, 1820, with an aneurism in the right ham. He dated its commencement from a fall he had from his horse about twelve months before. The aneurism had been very painful for the five preceding weeks, and at the time of his admission the whole leg was œdematous, and in a state of inflammation; but these symptoms were considerably diminished by confinement to bed, and taking some purging medicine.

“On the 19th I tied the femoral artery with a single ligature of strong silk. The ends of the ligature were left hanging out of the wound. The greatest part of the wound united by the first intention. There was no disorder of the constitution. The ligature came away on the 5th of September, when, as the wound appeared healed, he walked out of doors, and was discharged from the hospital quite well on the 9th.

“For five weeks before the operation, he told me, the violent pain came on in the leg every night about half-past ten, and went off about two in the morning. It appeared to be entirely in the sciatic nerve. This might have been accounted for by supposing him to have lain so as to press the nerve in the upper part of the thigh, as it always came on in the night; but it returned just at the same time for several days before the operation, when he was entirely confined to his bed. It was never felt after the operation.

“In the same manner I have known an ulcer placed over cutaneous nerves near the ankle to be affected by the most excruciating pain, at the same hour early every morning, whilst other ulcers on the same leg were hardly noticed. The subject of this case died of apoplexy.

“All local affections of nerves appear to come on, or at least to be aggravated, periodically. Why this should be so it is difficult to explain. It may be that a nerve cannot at first bear a diseased action without rest, any more than it can a healthy one, and therefore the diseased action, after a certain period, ceases to make any impression. But, after this rest, the nerve acquires fresh power, and is again fitted for the same action.

“ In the case of Charles Chelsop, the structure of the nerve could not have been altered from the pressure of the aneurism; but I conceive the aneurism irritated it, and, at the particular time of the approach of violent pain, produced some change in the nerve. It may be supposed that the aneurism itself became enlarged at this period, either from a greater determination of arterial blood to it, or some impediment to the free return of this by the veins, and thus extended the nerve to a greater degree, or that there was an increased action of the blood-vessels of the nerve itself, or that the nerve was in a state of spasm or contraction, and during the period of ease became passive and yielding from exhaustion, and incapable of being acted upon without further rest.” (P. 12.)

In the second chapter, which treats “ of painful affections in particular nerves,” we find two interesting cases of neuralgia cured by bark.

“ CASE. Mr. M., seventeen years of age, applied to me on account of an excruciating pain in his face, for which he had used remedies prescribed for him without any relief. About two months before, he received a blow on his face, which broke one of the middle incisive teeth of the upper jaw; some swelling of the face was occasioned by the injury, but in a short time it entirely subsided. When I saw him there did not appear to be any particular cause for the pain, as his general health was not much impaired, although he had become thinner by the continuance of the pain. I ordered him to take two scruples of powdered bark with the following draught every three hours, and to drink several glasses of wine daily:—R. Decoct. Cinchon., Infus. Caryoph. aa. ʒvj.; Syrupi ʒj. M. Ft. Haust.

“ After the use of these remedies for a short time the pain entirely left him, but confinement again brought it on, when recourse being had to the bark in larger doses, the pain gradually subsided, and he afterwards had no relapse.

“ I have before observed, that whatever tends to weaken the body produces a morbid sensibility of the nervous system, and disposes to the production of disordered functions of the nerves. In the following case the complaint came on in consequence of poison taken into the stomach.

“ CASE. Mr. B., having eaten some hashed hare, became ill, with others who partook of it. It was afterwards discovered to have stood in a brass pan, which was found on examination to be covered with verdigris. From this time he was never well; and when I saw him, some months after, he had an affection of the nerves at the back part of the head, which caused excruciating pain, and had tormented him a long time. He had become very weak and much emaciated in consequence of the almost continual severity of the pain, and, in short, he quite despaired of ever being

better. He had used a variety of remedies, without any abatement of the complaint.

“ I ordered him half a drachm of powdered bark, to be taken every three hours, and a blister to be applied to the back of the neck; and, as the pain was usually more severe in the morning, to have a draught, with thirty drops of laudanum, to be taken at that time; and I recommended him to drink wine and malt liquor. Soon after he was put on this plan of treatment the pain began to be less severe, and it kept gradually diminishing, and at length quite left him. As the pain diminished, his bodily strength increased; and in the course of some months he became as strong as he had ever been at any period of his life. At first the bark was taken regularly every three or four hours, but afterwards not quite so regularly, and it was continued altogether for about six weeks.” (P. 40.)

When treating of partially divided nerves, Mr. Swan has the following practical remarks:

“ I have very little doubt but by far the greatest number of injured nerves in venesection is made troublesome by using the arm too soon, and bringing on inflammation; for I have never seen any bad consequences in those patients who have been so ill as to be unable to do anything.

“ Whenever a person has complained of very acute pain on the opening of a vein, great care ought to be taken to close the wound well with a linen compress and bandage, and to keep these continually on the orifice, and at the same time to confine the arm in a sling until the wound is perfectly healed.

“ I relate the following case, to show that if a nerve be injured in bleeding, and the external wound heal by the first intention, that of the nerve may not be of any consequence.

“ CASE. I bled Mrs. D. in the median cephalic vein; she complained of very acute pain at the time I made the puncture, and it continued for several hours.

“ As I was certain from the manner in which she complained that I had wounded a nerve, I was very careful in binding up the arm, so as to keep the lips of the wound in exact contact, and at the same time told her of the necessity there was for keeping her arm entirely at rest. The wound healed by the first intention, and the pain did not return.

“ Some have supposed that the injury of a nerve in venesection is always a partial division, and that in order to a cure, it is necessary to be wholly divided. That it is so sometimes, I shall relate cases to prove; but that it is not always so, will appear from the following.

“ CASE. A woman about forty years of age got a fall, which shook her head very much, and for which I bled her from the cephalic vein; she felt no inconvenience for two or three days, but

after that her arm became painful from the shoulder to the wrist, and she seemed to suffer very much.

“There was a little thickening about the cicatrix, and it was painful when touched. I ordered some extract of belladonna to be applied to it. Some days after, when I saw her, the cicatrix was quite even and soft, and might be pinched without producing pain. The pain now only struck upwards to the neck whenever she attempted to straighten her arm. I ordered her arm and neck to be bathed with the following liniment, and the pain gradually wore off, although it was some weeks in doing so:—R. Linim. Carb. Amm. ʒvj., Tinct. Opii. ʒij. M. ft. Linim.’ (P. 115.)

“When the ears are stopped,” says our author, “and a watch is brought in contact with any part of the head, face, teeth, or neck; or if a stick, water, &c. be interposed between any of these parts and the watch, the sound will be heard as well as when the ears are open.” (P. 279.) He does not side with those who suppose that this depends merely on the mechanical conveyance of the sound, as the sound would then be heard, at whatever part of the head or face the watch were applied, which is not the case; but he thinks, with great reason, that the conveyance of the sound depends on a communication between the auditory and facial nerves at the bottom of the internal auditory meatus. The bearing of this interesting fact, first discovered by our author, will be obvious from the following case, with which we must reluctantly close our extracts.

“Elizabeth Nobles, aged thirty-six years, was born with the external auditory meatus of each ear imperforate. In the right auricle there is a very slight trace of the external auditory meatus, and there appears to be no other part of the auricle but part of the helix and the lobe. In the left there is a slight trace of the meatus, but it is only about one sixteenth of an inch deep; there is the form of the auricle, but the different eminences are not distinct, and the communication between the external air and the membrane of the tympanum of each ear, if these exist, is as completely obstructed as is possible. She did not begin to talk at all intelligibly till she was seven years old, and she did not talk tolerably well before she was about twelve: she can now talk to be perfectly understood. She can hear perfectly when a person addresses her at the distance of six or seven yards. She cannot hear so well, when the person speaking is behind her. She cannot hear a watch unless it is in contact with her face, and not if it is in her mouth, unless it is in contact with some part of this. She herself, as well as others who have known her, supposes that she hears through her mouth and nose, and from observing the motions of the lips. To prove that this is not the case, the circumstance I have related with respect to the watch might suffice, but I made her shut her

eyes, and she heard distinctly what I said, as likewise when both her mouth and nose were quite closed. Putting a cloth over her mouth, and nipping her nose, have made a slight difference now and then; but nothing more than I could suppose would happen from the extent of the face the sound was thus kept from. I have pressed my fingers on the parts where the external auditory meatus should be, but she heard just as well as before. I have put a thick cloth over them, and at the same time pressed this as close as I could, but it made no difference. I stood four feet from her after having put a linen cloth over her face, and when I addressed her, she heard distinctly. I then put over the linen a piece of flannel, and she still heard me. I then put over the flannel a large woollen cloth coat, and asked her several questions, but she could not hear any of them. I removed all the coverings, and used the same words in the same tone, which she told me immediately. I made the same experiment another day, but she heard all the questions I asked, though more faintly, according to the covering put on her face. Some variation will always exist in these experiments, for it is impossible always to remember the exact tone of voice made use of in them, and some little difference may likewise exist in the coverings. She could hear distinctly tunes played on the pianoforte at the distance of seven or eight feet, and I covered her face, as in the other experiments, and the sounds were fainter. I pressed on her ears with a cloth, but she heard the tunes just as well. I placed her in a chair near the piano, and covered her face so as to hinder her from hearing so well; I then placed her hand on the piano, and she heard much better: I then tied a silk handkerchief tight round the arm, and she did not hear so well, and she heard better again when I loosened it. She cannot hear the sound of bells at a distance; nor hear the cathedral clock strike unless she is very near, though the hammer strikes on a bell, which is one of the largest in the kingdom, and can be heard at different times at the distance of several miles.

“When her face or teeth are in contact with the piano, on which any one is playing, the sound is very loud to her.” (P. 283.)

The knowledge of this fact will be of inestimable value in the education of the deaf and dumb; as in many cases these unfortunate beings do not suffer from any defect of the auditory nerve.

The plates with which this treatise is illustrated do great credit to the artists whom Mr. Swan has employed: two of them are of extraordinary beauty; one representing the sciatic nerve, with some of its fibrils lacerated, and surrounded by a coagulum of blood; the other shewing a partial division of one of the digital nerves.

It is needless to repeat our opinion of this admirable treatise. Its price is very moderate; the book ought to be in everybody's hands, and the substance in everybody's head.

The Croonian Lectures, delivered at the Royal College of Physicians, in 1833, on Cholera. By GEORGE LEITH ROUPELL, M.D.
—London, 1833. 8vo. pp. 91.

WHEN we open a book on cholera, it is almost with despair of being much the wiser for its contents: the obscurity, however, which pervades this subject, only augments the merit of every well-directed attempt to dispel it, and all contributions from those whose experience and judgment entitle them to be heard have a right to the careful attention of the profession. Dr. Roupell has enjoyed considerable opportunities of witnessing the disease of which he writes, and has stated the results of his experience in a judicious, practical, and unostentatious manner.

We quite agree with him in considering the malignant cholera as a disease of modern origin; he correctly states, however, that it was certainly known as early as the year 1782: Mr. Curtis's description, quoted from the Madras Reports, puts it beyond a doubt that the disease prevalent in Sir Edward Hughes's squadron, and believed to have arisen from communication with an infected port in Ceylon, was in all respects identical with that which, in its epidemic form, has since devastated the East, and spread over the greater portion of the globe. Our author adds,

“Mr. Barnes, who was the medical superintendent at Jessore from the year 1810, mentions, in a letter addressed to me as one of the medical officers of the City board of health, that he had become acquainted with the disease since he had joined the station; that it was to him entirely new, and one which had superseded the periodical remittent fever, formerly endemic. He states that, twice previously to 1817, this disease prevailed to such an extent in Jessore, and its immediate neighbourhood, as to render it necessary to shut the courts of justice, and suspend all business, for a considerable length of time. The origin of this monstrous birth may then be dated earlier than the period usually assigned to it. Its origin, too, as an epidemic may be ascribed to other places than Jessore, as Dr. Christie relates that it existed in the various parts of the southern districts of Bengal, in the months of May and June, 1817; that it did not create alarm in Jessore till August; that several cases took place in Calcutta on the 5th of September, and from that day forward the disease became daily more frequent.” (P. 16.)

After a judicious review of some of the principal circumstances which have been supposed to constitute the remote causes of this singular pestilence, Dr. Roupell justly concludes that we are still entirely in the dark upon the subject,

nor less so on the causes which favour or impede its epidemic extension.

In intimating his own conviction of the *contagious* nature of the disease, he expresses himself with becoming candour. It appears to us that this question must for the present remain open. The evidence hitherto brought on either side is altogether inconclusive: the apparent importation of the disease from places where it is prevalent, its appearance on board vessels shortly after their leaving port, and other circumstances on which the doctrine of contagion has been made to rest, admitting, in our opinion, of as satisfactory an explanation on the opposite supposition.

There is, we think, only one way of setting this disputed point at rest, namely, by a diligent comparison of the relative number of cases which occur among those who are in continual communication with the sick, and those who are not; other circumstances being the same, or nearly so. The observations should be made in various localities, and at different times, and the comparison should be instituted between the attendants on the sick in a cholera hospital, and the surrounding population in the *immediate* vicinity of that hospital. A very small town, or a village, is evidently the best place for such observations.

If it should be found, on comparing *a very large number* of results, that the proportion of cases among the hospital attendants is only a little greater than that among the rest of the population, such difference may fairly be attributed to the fatigue, apprehension, and confinement, which render the former more obnoxious to any prevailing disease; but, should it be found that the hospital attendants are affected in a ratio double or triple that of the other inhabitants of the place, the disease may then be set down, without hesitation, as contagious.

It is but justice to the contagionists to say, that, after the experience we have lately had of the disease in this country, their doctrine is decidedly gaining ground; but, though we ourselves incline to it, we conceive that there are hitherto no data for a positive conclusion.

There are few diseases which are, on the whole, more homogeneous in their aspect than cholera: it presents, however, occasional varieties, on which our author has some interesting remarks.

“Mr. Curtis, in his description of the disease as observed in India, mentions several varieties of it, one distinguished by the absence of vomiting and the prevalence of diarrhœa; another by the excess of vomiting and occasional absence of the dejections;

and a third by very slight commotion of the system, indicated either by the evacuations or by spasm; this last, he says, he considered the least manageable of all. The form in which it most frequently presented itself to him, was that in which the alvine dejections were particularly frequent. There are, however, two other forms which this disorder has occasionally put on. One in which spasms alone have been observed, and another in which copious determinations of blood have taken place to the thorax and abdomen. Of the former of these I have met with but few examples in this country; they were, however, more frequent in India, the practitioners having repeatedly noticed this variety; and this in all probability is the convulsive disorder noticed during the prevalence of cholera, and denominated by Girdlestone and others 'idiopathic spasm.'

"But the other form, that, namely, characterized by large effusions of blood, is but rarely referred to by foreign writers, if indeed distinctly described by any, though a form which it seems to me clearly to have assumed, and is one which may perhaps throw some light on the actual nature of the complaint." (P. 17.)

Dr. Roupell alludes more fully to the last-mentioned form, when speaking of those diseases which have occasionally prevailed immediately before the invasion of epidemic cholera.

"That form of the disease which I have mentioned as indicated by discharges of blood from the mucous membrane, seemed here to be the first in advance; and if not entitled to be considered as the disease itself, might be called premonitory. Several cases, it may be recollected, excited some notice before the disease was proclaimed in London, and on the 16th of January a coroner's inquest sat on the body of a man at Shadwell, who died with urgent cramps, pain in the abdomen, and vomiting of blood. This man was a seaman, and had arrived from North Shields a week before. In this case the jury, guided by the opinion of several practitioners, some of whom had seen the cholera in India, and had been appointed to the superintendence of the metropolitan districts, came to the conclusion that the disease was not cholera. But many cases which I saw about that time and previously, occurring in persons connected with vessels trading from Sunderland, indicated a very intimate connexion with the disease in question. I may briefly mention one, which was under my own care. A man named Webster, twenty-eight years of age, sailed from Sunderland on the 20th of January, and arrived in London about the 30th. The vessel immediately obtained pratique; but a few days after, this man was seized with extreme pain in the epigastrium, the abdomen was forcibly drawn in, he had urgent vomiting, with coldness of the hands and paleness of the countenance; a warm bath being ordered and some castor oil given, the urgency of the symptoms was removed, and evacuations were produced free from any admixture of blood; the next morning an inclination to empty the bowels was felt; an enema was administered, which returned unmixed with fæcal

matter; but rising to go to the chair he fainted, fell back, and died. No cause could be assigned for the attack, except some slight exposure to cold incident to a seaman's life, and which the patient in this instance seemed well able to resist, being remarkably powerful, not addicted to any excess, and living in a manner least likely to predispose to any disorder; but he mentioned that he had had a similar attack at Sunderland six weeks before. On examination after death, twenty ounces of blood, apparently venous in character, was found in the cavity of the abdomen. The peritoneum was slightly vascular. On removing the abdominal contents, and examining the intestines externally, the stomach and the small intestines to the extent of five feet were natural; when suddenly the tube was found firmly contracted, as if tied round by a thread, and from this point downwards to the ileo-colic valve the intestines were of a deep purple colour. Internally, nothing at all deviating from health was remarked in the upper part of the intestines, but below the point of stricture described the intestine was filled with dark-coloured blood, some of which was found as far as the rectum. The mucous membrane when held up to the light did not appear more vascular than usual in this part. The consistence or texture of the intestines was not altered, although they exhaled an extremely offensive odour. This case corresponded in some degree with that already alluded to at Shadwell, but differed from it in the collection of blood in the abdomen. Another example of sudden death occurred under my own observation, in the preceding December, in a man also engaged in the Sunderland trade, who was attacked with very similar symptoms, but who referred the pain more directly to the neighbourhood of the heart. By appropriate means he appeared to be relieved, yet on the morning following his admission into the hospital, on sitting up to take his breakfast, having declared he felt sufficiently well to return to his duty, he suddenly sank back, and immediately expired. The post-mortem examination shewed the small intestines and its vessels congested, some effusion of blood having taken place in the neighbourhood of the spleen, but to no considerable extent. These cases seem fairly to be attributable to the impression of the same agency which produces cholera, and in its most aggravated degree. Instances of death by hemorrhage, I know, have taken place long before the introduction of cholera maligna into our nosology; but I think the time when these happened, and the class of persons amongst whom they occurred, justify me in considering them as other than ordinary occurrences." (P. 32.)

Dr. Roupell considers the treatment of cholera under the heads of Bleeding, Emetics, Salines, Stimulants, Purgatives, Sedatives.

Bleeding. Our author has found no advantage from this remedy in the advanced stage of cholera. He combats the idea that bleeding can act, as supposed by many, simply by

disencumbering the circulation. An instance of its failure, when employed with this view, is given in the following case.

“Edward Hide, of temperate habits, and having previously enjoyed good health, was admitted into St. Bartholomew’s cholera hospital, on the 10th of September. At that time his countenance was anxious, his skin, tongue, and breath, were cold; his hands felt clammy, his fingers were corrugated; he was tormented by intense thirst, urgent vomiting and severe cramps, and his stools were frequent, copious, and like rice-water. Warmth and stimuli failed to rouse him. On this a vein was opened. The blood flowed slowly, was thick, and dark-coloured. No strength was acquired while the blood flowed, no rise in the pulse took place, indeed, he seemed to be sinking so fast under the remedy, that I deemed it prudent to stop when but a small quantity had flowed. His symptoms increased, and he died thirty-six hours after admission. This case I cite as one of many in which a similar result has followed.” (P. 42.)

Our own experience coincides with this. We have never seen bleeding practised but in the stage of collapse, in which it had either no effect at all, or accelerated the death of the patient. It is also to be remembered, that bleeding in the advanced period of cholera is not always a remedy of possible application; for those who have tried the experiment know well that, in a considerable proportion of cases, little or no blood can be obtained. On opening a vein, nothing issues but a tablespoonful or two of a black, cold, semigelatinous fluid.

“But venesection,” observes our author, “nevertheless, has done good in cholera. It must then operate beneficially in some way, though certainly not by relieving the circulation mechanically. Can it be by arresting the diarrhœa? An answer to this question may perhaps be furnished by the following narration.

“James Ward, æt. fifty-six, had been for some months a patient under my care, for a cerebral affection, on board the Dreadnought, the Seaman’s Hospital. On the 21st of September he was attacked with active purging. An emetic was administered, and calomel and opium given every four hours. Neither the one nor the other checked the diarrhœa, which continued for three days, when I ordered him to lose sixteen ounces of blood. The diarrhœa stopped immediately, and without further treatment the patient recovered from this attack in the bowels. It appears then that venesection in this case arrested the diarrhœa; and it is probable that this diarrhœa was premonitory of cholera, as that disease was then prevailing on board the hospital ship, and a man had died of it in the adjoining bed.

“Robert Blair, æt. thirty-two, also a patient on board the Dreadnought, had been admitted for deafness, and was attacked with violent purging on the night of the 12th of September. He

applied for relief on the 13th, and then stated, that although violently seized the night before, yet that for two days previously his bowels had been relaxed. His tongue at the time of his application was pale and cold, his eye looked dark and sunken, he complained of a sense of constriction in his chest, his pulse was labouring and irregular, he was constantly purged, and his stools were watery and copious. Sixteen ounces of blood were taken from his arm, an emetic was afterwards given; the purging which had previously occurred every half hour then ceased; no other remedy was employed, and he was discharged well of his recent attack. In this case also it appeared that venesection arrested the diarrhœa, and that when the tongue was pale and cold, the eye dark and sunken, and the pulse feeble and irregular; here again there was great suspicion that this diarrhœa was the diarrhœa of cholera. Strong as the belief might be that the cases which I have cited were referable to cholera, yet in them the characteristic discharges were absent. But I will briefly mention one of a person of the name of Powell, thirty years of age, who consulted me on the 29th of August, about the middle of the day: he had been much exposed to the contagion, as he was assistant to the undertakers of St. Bartholomew's Hospital. He complained of vomiting, purging, and cramps. For three previous days he had been troubled with diarrhœa. Five grains of calomel with a grain of opium were given immediately, and repeated in four hours. When visited in the evening, the purging was incessant, the evacuations gruelly with small white flakes, but his skin was still warm, and his pulse had not yet sunk. Twenty ounces of blood were drawn from his arm, and a scruple of Hyd. c. cret. were given; the diarrhœa at once ceased, and he passed a good night. Purgative medicines were afterwards required: the case terminated favourably, and the man was discharged well on the fifth day. This case was one undoubtedly of cholera. A large venesection was practised, and the immediate and unequivocal effect was to arrest the diarrhœa. These cases are far from solitary, but were selected merely for the sake of illustration. The inferences which I draw from them are:

“1. That venesection will stop a diarrhœa, when calomel and opium and an emetic have failed.

“2. That venesection will stop the purging in cholera before collapse has taken place.

“3. That in collapse, bleeding is a remedy of doubtful benefit, if not positively hurtful.” (P. 43.)

What power bleeding may have over the diarrhœa of cholera, we can estimate only from the reports of others; but that it will often stop a common diarrhœa, we know from repeated experience. Indeed, where the diarrhœa is obstinate, and the patient moderately robust, we have sometimes found venesection the most efficacious of all remedies.

Dr. Roupell gives a case illustrative of the power of bleeding over the spasmodic symptoms of the disease:

“Before I quit the subject of the benefit to be derived from bleeding, the chief of which I have endeavoured to shew to be in checking the diarrhœa, I will mention a case which was admitted into St. Bartholomew’s cholera hospital, in which spasms alone were the symptom of the disease.

“Emma Lloyd, æt. thirty, applied for relief at ten o’clock in the morning of the 1st of September, labouring under frightful spasms, which came on in paroxysms about every five minutes: they commenced in the abdomen, drawing the muscles into hard masses; the muscles of the chest then suffered, and the fit terminated by a forcible retraction of the head, producing sometimes complete opisthotonos. The pain occasioned was extreme. The pulse was natural; neither vomiting nor purging was present. No obvious cause could be assigned for the attack, which began on the same morning. She was not hysterical, and had never had fits of any sort. She was bled to ten ounces, when the spasms immediately ceased, and did not again recur. The next object was to open the bowels, for which purpose appropriate medicines were directed. The symptoms which then presented themselves were vomiting and the most intense thirst: these were, however, relieved by the operation of the remedies already mentioned, but continued slightly for two days, when they left her entirely.

“This I consider to be one of those mentioned by Indian practitioners as ‘spasm,’ and of which I met with several in a milder form during the summer of 1832. My opinion was undecided when first I saw this case, but the course which it afterwards assumed, the vomiting, and thirst, seemed to connect it intimately with the disorder prevailing at that time. My belief then is, that bleeding is an important remedy in the more severe forms of the disease, either in the stage of premonitory diarrhœa, or even when it has more clearly developed itself, if resorted to before the system is exhausted by copious discharges.” (P. 49.)

Emetics. After venesection Dr. Roupell ranks emetics, observing, however, with truth, that “there are few medical men, who have watched the cholera even in its later periods, who have not been deluded into false hopes from the obvious improvement occasioned by the full effect of vomiting. In fact, the pulse will rise, the lividity of the skin will for a while disappear, but, with other unfavourable signs, in a short time recur.” (P. 50.) He considers emetics as a useful means of rousing the powers of the system after the diarrhœa has been checked by bloodletting; he adds, that “those cases in which vomiting is the chief symptom, and is very urgent, may be brought successfully to a close by keeping up the action of the stomach with copious draughts of cold

water, to which class of cases that simple mode of treatment seems the most applicable. I had one case under my care which terminated favourably, in which nothing else was taken in the earlier period of the disease." (P. 53.)

Salines. On Dr. Stevens's saline treatment our author remarks:

"I felt desirous of trying the method which he recommended, but I could not bring my mind to a conclusion as favourable as Dr. Stevens has done. I either found no benefit from it, or could not persist in its employment; the patients growing worse, or positively refusing to swallow the powders, from their causing immediate and almost incessant vomiting." (P. 55.)

Dr. Stevens's *cases* we do not consider worthy of the smallest attention, as it is pretty clear that this gentleman either grossly deceived himself, or wilfully and knowingly — &c. We are not fond of uncharitable conclusions. To the theory promulgated by Dr. Stevens we shall presently have occasion to recur.

In speaking of the saline *injection*, Dr. Roupell observes, that he has seen it "accelerate the fatal termination of some cases, and prove the cause of death in others, by overloading the brain, and occasioning effusion into the ventricles. Still its good effects are sometimes magical, and shew that many of the symptoms in cholera arise from causes that can be easily remedied; but its frequent failure proves that more than the mere supply of salts is requisite to remove the disease." (P. 57.)

It appears to us that the benefit, either temporary or permanent, which has unquestionably followed the use of venous injection in some cases, has been too hastily ascribed to the chemical properties of the injected fluid: it is, we think, more probable that this remedy acts simply as a stimulus applied to the internal membrane of the heart and blood-vessels; it may also act beneficially by diluting their inspissated contents, at the same time that its stimulating properties, and the distension which it occasions, rouse the vessels to their wonted action. All this, however, is mere hypothesis.

Stimulants. On this head our author's observations are very general. With respect to brandy, æther, and the essential oils, he thinks that they "can only with safety be resorted to at the commencement of the disease, and then undoubtedly they have, in some instances, completely put a stop to all those indications which are premonitory of cholera." (P. 60.)

Of the power of the cold affusion in rousing the powers of the system, Dr. Roupell states that he has had repeated experience; and from no remedy has he seen such decided amendment in the stage of collapse, except the full effect of emetics.

Purgatives. These he believes to be among the most important remedies in cholera.

“But the term ‘purgative’ must be limited in its meaning, and all cathartics are by no means to be recommended. I have seen a colocynth pill, taken to remedy an obstruction in the bowels during the prevalence of cholera, excite a diarrhœa which never ceased until life itself was exhausted. I have seen active purges themselves produce the disorder; and those which occasion copious serous evacuations are under no circumstances to be administered. Such as act simply by removing the irritating contents of the intestinal canal may be directed, and such as combine with purgative effects an astringent character I have generally ordered: rhubarb, for instance, either combined with, or given shortly after, a large dose of calomel. But purgative medicines, I should say, are chiefly to be resorted to early in the disease.” (P. 61.)

Narcotics. Of these our author only alludes to opium, which he considers as useful only at the commencement of the disease.

“If opium can (as has been asserted) in all cases restrain the discharges, I am persuaded it will often fail to do so, unless given in doses so large as to hazard the safety and life of the patient; at the same time that, if properly administered at the commencement, it is of more value than any other remedy; but the point of time at which alone it can be properly employed must be before those actions are established which directly tend to depress the system. It should be given in full doses, in order that the effect may be speedily produced; and, if not at once beneficial, bleeding and other means should be resorted to without delay.” (P. 62.)

In his concluding lecture Dr. Roupell takes a judicious survey of the pathology of cholera. To the theory which attributes the disease to a chemical change in the circulating fluids, he properly opposes the suddenness with which a patient is sometimes attacked, and the rapidity with which he recovers; and the experiments of Dr. Christie, which go to prove that, at the commencement of cholera, the blood has not undergone any alteration. The former objection is, we think, quite conclusive against Dr. Stevens’s theory. When, as often happens in India, and sometimes elsewhere, a man previously in perfect health is struck down by cholera in an instant, cold and pulseless, where are his salts gone to?—have they flown into the air? And, when a man so affected gets

well almost as fast as he got ill, where do the salts come from? Do they arrive on the wings of the wind, and rush into his veins all of a sudden?

That rapid chemical changes may take place in the constitution of the blood, we see no reason to doubt; but that all its saline ingredients should be abolished in half a minute, and regenerated in half an hour, passes all understanding. It may be said that we are supposing an extreme case; true: but what sort of pathological theory is that which will not apply to the most strongly marked and concentrated case of the disease it is intended to explain? It is the very case to which it ought to apply most emphatically.

To the views of those who consider inflammation or congestion in the mucous membranes as the proximate cause of cholera, Dr. Roupell opposes the results of his dissections:

“In general, I may say, in the most rapid cases which fell under my own observation, that the mucous membranes were pulpy, white, not loaded with blood, nor were the neighbouring vessels unusually distended; the venous and arterial branches of the mesentery, on the contrary, were not unfrequently empty, or nearly so.” (P. 70.)

The following is a general summary of his post-mortem investigations:

“The appearances discovered after death in the bodies of those who have died of cholera, are dryness of all the serous membranes, from the want of their usual lubricating secretions; absorption rapidly going on, so that the features are so changed in a few hours that persons have been unable to recognise their own relations. The secretions appear to be all suspended. These consequences cannot be maintained to be the ordinary result either of hemorrhage, inflammation, or congestion. I have examined with much attention the inner linings of the arteries, and of the veins of the abdomen and have traced their ramifications as far as instruments would serve me, and the eye could follow them, but without being able to discern any morbid change. The thoracic duct when I have examined it has been empty. The most constant appearance which I have noticed, has been a peculiar redness of the external coat of the intestines, a redness of a rosy hue, peculiar in its tint, and obviously owing to some change in the capillary arteries, differing entirely from the colour of the blood in the veins, and I have also noticed the same aspect in the transparent vessels of the peritoneum.” (P. 73.)

Dr. Roupell gives an interesting analysis of the blood, bile, and urine, in a case which terminated fatally in the stage of consecutive fever. For this analysis he expresses himself obliged to Dr. O'Shaughnessy: it presents the novel feature of the existence of urea in the bile.

The blood contained in the 1000—

Water	.	.	.	702.00
Urea	.	.	.	3.66
Salts	.	.	.	6.00
Albumen	.			
Fibrine	.			
Oily matter	.			
Hæmatosine	.			
)	.	288.34

The urine contained—

Water	.	.	.	973.75
Urea	.	.	.	4.40
Albumen	.	.	.	19.35
Salts	.	.	.	2.50

And a trace of uric acid.

The bile, which had been evacuated in great quantity during life, both by vomiting and stool, and which presented nothing peculiar in its appearance, contained six parts in the thousand of salts, and three parts of *urea*. (P. 84.)

After demolishing other people's theories of cholera, Dr. Roupell introduces one of his own, in which he maintains "that the primary cause of the effects witnessed in that disease arises from an affection of the nervous system; that the immediate result of this is an irritability of the lymphatic portion of the vascular system, occasioning increased fluid discharges, which exhaust the system, and prove eventually fatal." (P. 74.)

With respect to the primary affection of the nervous system, we are inclined to agree with our author: of his theory in general, we have only to say, that it appears to us to be as good, and no better, than some which have preceded it; but for its full exposition we must refer to Dr. Roupell's book. The fact is, we are heartily tired of theories of cholera, and have no doubt that the greater part of our readers participate in our weariness. It seems to us that, in the investigation of obscure diseases, to whose pathology we have no rational clue, we are less profitably occupied in forming conjectures on their proximate cause, than in comparing them with those maladies to which they seem, from their symptoms, to have a natural affinity, in the hope that they may eventually throw some light on each other.

There is, we conceive, only one diseased state to which malignant cholera, generally speaking, bears the smallest resemblance, namely, asthenic fever; and, if we contrast cholera with fever, each in their most intense form, we shall observe several very striking points of similarity. We quote

the following description of fever, when fatal at its first onset, from Fordyce, whose work, though not recent, is, in our opinion, the best and most philosophical that has yet appeared on the subject of fever.

“When the attack is fatal it sometimes kills in five minutes, sometimes it requires half an hour, seldom longer than that time. While the patient is yet sensible, violent headach with great sense of chilliness take place, the extremities become very cold and perfectly insensible; there is great prostration of strength, so that the patient is incapable of supporting himself in an erect posture; he becomes pale, his skin of a dirty brown, and he is soon insensible to external objects; the eyes are half open, the cornea somewhat contracted. If the patient goes off very soon, the pulse is diminished, and at last lost, without frequency taking place, but if it be long before he dies, the pulse becomes excessively small and frequent, all the appearances of life gradually subside, and the patient is carried off.” (*Dissertations on Fever*, vol. i. p. 181.)

Now, if such a case be compared with cholera in its most concentrated form, that in which there is neither vomiting, purging, nor spasms, but sudden arrest of the circulation, and extinction of the powers of life, these two forms of disease, though certainly distinct, and in some respects widely different, still present a generic similarity which might entitle them to be considered as cognate; and a knowledge of the real cause of either of them would probably enable us to reason more satisfactorily on that of the other.

Dr. Armstrong considers cholera as a form of what he calls *congestive fever*; and Mr. Searle is of the same opinion. Without precisely adopting this view of the subject, we think the analogy is so strong that it ought by no means to be lost sight of. The relationship of cholera to fever is also countenanced by the very frequent instances in which the former, having passed through its cold stage, is actually developed into a fever of the typhoid type; though it is admitted that this fever appears to be one *sui generis*.

Of one thing we are certain, that we have seen instances of malignant cholera, both in the cold stage and that of reaction, which (putting aside the history of the case, and judging merely from the symptoms as they presented themselves,) would at once have been referred to the corresponding stages of typhus.

Dr. Roupell, in his concluding remarks, thus adapts his treatment to the views which he entertains of the nature of the disease:

“In the premonitory stage, calomel and opium, brandy and other stimulants, may be exhibited, when only the nervous extre-

mities are affected, or determination be only slightly occasioned ; this may blunt the impressions, and thus render the nerves insensible to the cholera stimulus, or, by general excitement to the sanguiferous system, the disease may be arrested. Should, however, this determination continue, bleeding must be had recourse to, and this I conceive to act by emptying the vessels and allowing the increased discharge from the lymphatics to circulate through the veins, instead of being poured out through the bowels; but bleeding will by no means succeed if late resorted to, when the blood is thickened, and has lost ingredients which are essential to its circulation and to the vital processes; at that time any diminution of its quantity gives no relief, indeed seems to hasten the fatal result. In complete collapse, emetics and the cold affusion are infinitely the most powerful stimuli, and when the disease is once arrested, salines, I conceive, may be beneficial; opium in very small doses may also be of use to check the irritability of the stomach; but in the more advanced stages, when the head is bewildered, and when there is a disposition to coma, it is under no circumstances to be employed. I imagine that the saline injection does good, if the lost constituents of the blood be supplied in those cases in which exhaustion has been rapid, and the disease is disposed to cease; but it is a remedy far from innocent in its nature, and it is to be borne in mind, that it can do harm as well as good; one objection to its use is, that it terminates often in phlebitis, but this may be obviated by gentleness in performing the operation, and by using a small flexible elastic tube." (P. 88.)

Our author has great confidence in the resources of art, when employed in the commencement of cholera; "for," says he, "I have rarely found any case, in which the disease was presented to me in its early stage, which did not yield successfully to medical treatment."

We are happy that Dr. Roupell's experience has been so encouraging: we cannot say that our own has been equally so, even when the disease came early under treatment. Still there is no doubt that active and judicious practice will accomplish much at this period, and that a great many cases, perhaps the larger proportion, will be saved. If indeed by the early stage of cholera the precursory diarrhoea only be meant, we agree with Dr. Roupell, that it is very much under the control of medicine; but we must not absolutely call checking a watery diarrhoea curing cholera, because we cannot be certain, in any given case, that such diarrhoea was really the forerunner of that malady.

With regard to the accounts published by various individuals of the wonderful success of treatment in the worst and pulseless stage of cholera, we say, without the smallest ceremony, that we do not believe them. We have seen many

such cases treated, and we have treated some ourselves; the treatment was various, but the result uniform: we never saw a single pulseless patient recover under any treatment whatsoever. That such patients do sometimes recover, we have not the least doubt; but, as our observations were not confined to one locality, or one mode of treatment, but extended to several districts, and great variety of treatment, we must be excused if we are more prone to believe our eyes than our ears; and if, in opposition to "undoubted testimony," we regard recovery from the worst stage of cholera as a rare occurrence, and the powers of medicine in this case as nearly nugatory.

In his enumeration of remedies, Dr. Roupell only slightly alludes to *mercury*, under the head of stimulants; he afterwards, however, expresses his belief of the inefficacy of that remedy, mentioning one case in which collapse actually supervened while the mouth was affected. Our own observation agrees with his: we have seen calomel given in small and in large doses, but never with any apparent benefit. In the very last case that came under our own treatment, we gave it in doses of a drachm every hour, from which administration we could not perceive the smallest effect of one kind or another: the patient died.

If we have insisted somewhat on so disheartening a subject as the inefficacy of medicine in the treatment of cholera, it has only been with the wish of counteracting, as much as in us lies, that abject spirit of credulity which is the bane of our art, and which so often exposes its professors to ridicule. If a man has a tale to tell that would be laughed at in a nursery, he has only to promulgate it in a medical society, to obtain credence from somebody.

In taking leave of Dr. Roupell, we may just be permitted to suggest that, in treating of medical subjects, it is by no means essential, though extremely fashionable, to abjure the use of the English language. These lectures abound with such sentences as the following:

"Not less various were the remedies, or more contrary in their tendency the plans of treatment recommended for internal administration." (P. 40.)

"This person's mode of life, and her condition preceding the attack induced a decidedly unfavorable prognosis, which the character of symptoms shewed to be of the most malignant type." (P. 53.)

Those who are accustomed to see patients swallow *plans* of treatment, or to determine the *type* of a *prognosis*, may make English of these sentences; but we cannot.

On the whole, Dr. Roupell's is one of the best books that has been published on cholera. It is written with great candour and good sense, and contains more original matter than might have been expected in treating of a subject on which Medicine has expended all her resources, and, we may add, Fiction not a few of her embellishments.

A Treatise on the Diseases of Newly-born Infants, and of their Diseases during Lactation; founded on Clinical Observations, and on Pathological Anatomy, made at the Foundling Hospital, Paris. By C. M. BILLARD, Doctor of Medicine of the Faculty of Paris, and Member of other Learned Societies. *Second Edition, enlarged by a Medico-legal Memoir on the Vitality of the Fœtus, with Notes, and a Notice of the Life and Works of the Author, by M. OLLIVIER (D'ANGERS.)*—Paris. Pp. 720.

THE diseases of children have received less attention than they deserve, which is more surprising and to be regretted, considering their importance and the interesting character of the sufferers. The fact cannot be concealed, and assuredly not excused. If an objector should be found to this proposition, we challenge the production of any work comprehending the peculiarities of infant health and disease, on which the practitioner can rely for sure guidance, when embarrassed by their apparent anomalies. *Anomalous* they may be called, because, although they are subject to the same general laws as in adults, the ever-varying conditions of infancy give them a new character, and compel a corresponding variation in the treatment. It were useless to insist upon propositions all but self-evident: frequently has the humane practitioner looked back with sorrow and regret upon that period of his career, when, not having by time acquired experience in treating the diseases of children, his failures bore a painful and humiliating contrast to the success of his riper knowledge. Indolence or culpable indifference may attempt to screen itself under the excuse of the difficulty of a diagnosis formed from data rendered uncertain by the inaptitude of the patient to give an account of the origin, progress, and symptoms of disease. Often as this disqualification is insisted on, we have never assented to it: on the contrary, we hold fast by a belief, a conviction directly the reverse; for it can frequently be shewn that the diseases of children admit of a much more accurate distinction than the same in adults. Suppose a child breathing with frightful rapidity, seventy in a minute, pulse 140 or 160, skin hot, eyes suffused, features swollen and anxious, cough frequent, restlessness incessant; is a single question necessary to determine that the disease is pneumonia, which will almost certainly prove fatal? Ce-

rebral affections are also much more distinctly and strongly marked in infancy. The simple habits of children also exempt them from many diseases of adolescence. Again, the latency of some functions only to be developed by puberty prevents many complications which embarrass in the diseases of maturity. It is, however, needless to multiply examples, though to do so would be easy. The infant sick are also more manageable; for the recusancy of children is controllable, while contention with the ignorance or obstinacy of grown persons is often as useless as it is disgusting. In another number of this Journal we have put upon record our opinion, that our defective knowledge on the subject before us was mainly attributable to the ignorance or supineness of the teachers of midwifery. Take a fair sample of the whole class.

The lecturer, for whose opinion and prelections we have the highest respect, whose judgment and opportunities place him, in our estimation, immeasurably in the van of his competitors, was in the habit of contenting himself with alluding to "hydrocephalus" (the name of a species, although always employed for the genus in these days,) in the tail of one lecture. His description of the symptoms was as brief as his directions for the treatment: "Fever—constipation—vomiting—green stools—convulsions—squinting—death. Treatment: Leeches—venesection—cold applications to the head—blisters to the nape of the neck—warm bath—calomel inside, and ungt. hydrarg. all over out,—winding up with foetid enemata." And, by way of fortifying these directions, it was added, "Gentlemen: the reason of our too frequent failure in the treatment of this disease is, that we do not bleed sufficiently. If you treat an inflamed knee, do you tamper with three or four, or even a dozen leeches? No! to be sure, you apply twenty or thirty, or a hundred: and, gentlemen, what is the corollary? Why, if an inflamed knee require so many leeches, what must an inflamed brain do? If it require many for the member for genuflexion, it must require more for the organ of thought."

Something like this was the peroration of a lecture by at least as able a teacher, and as skilful a practitioner, as any in these islands, ever excepting on the theme in hand.

An extensive acquaintance with our brethren justifies the assertion, that the most successful are those whose knowledge is the result of a large experience, rather than the inculcation of sound principles in connexion with the subject of infantile diseases: their knowledge is therefore almost purely empirical; and, as it was conceived in ignorance, its first fruits must have been bitter. No humane man can do otherwise

than lament the want of a guide in this wilderness, until familiarity with the oft-travelled track shall enable him to journey alone. This is written advisedly, and with the full conviction of the great merits of Underwood, Burns, and Dewees, whose works are indispensable to a good intelligence of these maladies.

In pathology it is no longer disputed that the French have almost incalculable advantages over the English, and in no instance is this advantage more conspicuous than the present. Even our national self-love cannot conceal the fact demonstrable in every line of this treatise, that M. Billard has alone distanced all the English pathologists who have devoted their best time to the morbid anatomy of the diseases of children.

We have no motive for selecting any one portion of the work in preference to another for especial notice, because the details are desultory, and not of the systematising kind, so frequently distinguishing the labours of French pathologists. The orthodoxy of ignorance may reject some of M. Billard's views as visionary, and there may be some who, glorying in the description of "practical men," will reject his theories, when they occur, as refined and unsubstantial subtleties. To these it were useless to commend the present volume.

Clinical and pathological reports, form a large portion of the book, and constitute its chief value. M. Billard's reasonings are never inconsequent, and but rarely savouring of the imaginative character of French theorists: he instructs more by the faithful and vivid portraiture of symptoms and morbid appearances, than by his hypotheses on their producing causes.

The following case is an interesting one:

"Marie Dumé, aged six days, of rather a strong constitution, entered the Infirmary on the 13th October. The countenance was flushed, but the limbs and trunk were slightly jaundiced; she cried but little, and slept quietly; the mucous membrane of the mouth was in the natural state, but the tongue was red at the tip and edges. On the 15th October the jaundice was less intense, and a rather copious diarrhœa followed; the gums were swollen, without being red; the child cried much, and was paler. This state of things continued till the 20th October, when the purging increased, and the child became very pale; the upper gums were swollen, and of a livid red colour. On the 25th all these symptoms increased; the child's cry became feeble, the pulse gentle and slow; but there was no cessation of the diarrhœa, and it died in the night.

"On examination *post-mortem*, the upper gum on the right side

presented a livid tumefaction with fluctuation: in the three sockets of the first teeth there was an effusion of blackish fluid blood. The incisors, and that part of the germ which is not ossified, floated free and detached in the effused blood which distended the tumour; the bony cavities of the teeth were flabby, red, and as it were infused in the fluid. The surrounding soft parts began to detach themselves from the alveolar edge. The rest of the mouth was healthy. At the cardiac orifice some red striæ crossed the surface of the stomach; the mucous membrane at the end of the duodenum was thick and tumefied; near the valvula coli were red and tumefied follicles. The liver was gorged with blood; the bile was abundant, viscid, and of a pale green. The lungs, heart, and brain, were healthy."

He proceeds to observe, that the case offers two remarkable circumstances for consideration: one, that symptoms having their seat in the teeth and their germs can occur in the first days of life; the other, that hemorrhages occur, as in the present example, from congestion of those parts, which is so common in infants at their birth.

While admiring the clear and luminous description, English practitioners will marvel at the obvious inertness of the treatment, often the characteristic of French therapeutics, as uncalled-for energy too frequently distinguishes our own.

We will now gratify our readers with a larger extract from this useful work.

"§ 1. *Congestions.* Passive congestion of the cerebral and spinal system is very common in new-born infants. It results from the high vascularity and slow circulation of the parts, and the influence of breathing upon their circulation. Protracted labour, the force necessarily used in particular cases of manual delivery, the difficulty with which respiration is established, the sudden change which takes place in the circulation of the infant, are additional and frequent causes of this affection; and it may exist in any degree from simple injection of the meninges to true apoplexy.

"Various degrees of cerebral congestion are comprehended under the general term of apoplexy of new-born infants; nor must we expect, in the majority of those who die apoplectic, to find that peculiar extravasation of blood, or any circumscribed cerebral hæmorrhage, which constitutes the malady of the same name in adults. We will now proceed to review the different lesions which are found in connexion with this disease.

"Injection of the meninges, of the chord, and of the brain, is so common in the new-born infant, that I am disposed to consider it rather as a natural state of parts than as a disease. It is found in the greater number of instances. Vascular injection, and even extravasation of blood at the inferior and posterior extremity of the spine, are very frequent. I have often observed it, though there had been no appreciable symptoms of such an affection during life.

“If the injection be excessive, a bloody exudation quickly takes place on the surfaces of the meninges, and the blood thus exhaled, commonly more or less coagulated, compresses the brain or the spinal marrow, and gives rise to the state of stupor or depression which characterizes apoplexy. This hemorrhage, external to the cerebral mass, is almost constantly met with in infants who are said to have died of apoplexy. It is this which M. Serres denominates meningeal apoplexy, and which he attributes to the rupture of some of the vascular branches which are distributed on the surface of the brain.

“Injection of the pulp of the brain is also not uncommon. It appears in the form of minute red points or dots, occasionally tinges the substance of the organ with a somewhat deep red colour, and is chiefly found on the lateral parts of the corpora striata and the optic thalami. It is here, in fact, that the vessels of the brain are the most abundant, and that cerebral hemorrhages and inflammations are most frequent at every period of life. This point has been incontestably proved by the writings of Morgagni, and the recent researches of MM. Lallemand and Bouillaud.

“Cerebral hemorrhage is found sometimes, but rarely; I have met with but a single example of it. The infant had died on the third day after birth, and with the ordinary symptoms of apoplexy: upon opening the body, a clot of blood was found in the substance of the left hemisphere, by the side of the corpus striatum. There was apparently no cyst; the cerebral substance was only a little softened in the neighbourhood of the clot, which was about an inch long and half an inch broad.*

“§ II. *Softening without Inflammation.* This is a lesion peculiar to the brain of new-born infants, and is evidently the result of the congestions of this organ. I speak of a species of local or general softening, which, far from presenting the characters of inflammation, offers, on the contrary, all the appearances of the decomposition, I might almost say putrefaction, of the organ. I will begin by relating an instance of this.

“Alexis Lonatt, aged three days, was placed in the Infirmary on the 18th of May. He was affected with general induration of the cellular tissue; the integuments were of a violet red colour all over the body; his cry was feeble and uneasy, and occasionally piercing; there was very slight resonance of the chest upon percussion; he was moreover affected with a very abundant diarrhœa, and the stools were green; the pulsations of the heart were rapid, but extremely feeble. No change took place during the next few

* “A fact observed by the younger Bérard proves that cerebral hemorrhage may take place in the fœtus in utero; so that apoplexy should be enumerated among those diseases of which a child may perish before its birth, and which may cause abortion. The fœtus in which M. Bérard observed this remarkable lesion was aged eight months and a half; the clot, of the size of a nut, was lodged in the substance of the brain.”—*Compte rendu de la Société Anatomique, pour l'année 1828.*

days, and he died on the 21st of May. Upon a post-mortem examination, the organs of digestion were found much loaded with blood through their whole extent. The liver was gorged with dark fluid blood, its tissue hardened, and of a brown slate colour. The lungs were flaccid, blackish, but little distended with air, and the posterior part gorged with blood. The fœtal openings were still permeable, the meninges much injected; the cerebral mass reduced to a semifluid pulp, which oozed from every incision through the arachnoid, and smelt strongly of sulphuretted hydrogen. This softening extended to the lateral ventricles, where extravasated blood was found in considerable quantity. The rest of the brain was softened, and of a violet colour, but it was far from being of the semifluid consistence of the portion of the hemispheres above the ventricles.

We may suppose “ that this general disorganization of the pulp of the brain was the result of its contact and mixture with the blood extravasated in the ventricles, and infiltrated into the substance of the brain itself. This softening, remarkable for its resemblance in colour to the lees of wine, and its strong odour of sulphuretted hydrogen, is often the result of the mixture of blood with the substance of the brain, for a cerebral hemorrhage almost invariably accompanies it; but this hemorrhage, when it is recent, may exist alone, the softening of the pulp of the brain not having yet taken place: still we observe, either at the upper part of the hemispheres, or externally to the corpora striata, portions of the brain which are beginning to soften, and have already the odour peculiar to this disorganization. On the other hand, I am inclined to believe that the cerebral softening may precede the hemorrhage, and may even be the occasion of it, for I have found it several times without the extravasation of blood.

“ The softening of which I speak sometimes only exists in one lobe, at other times in both; very frequently the whole mass of the brain is thus destroyed; and, when opening the cranium, nothing is found but a semifluid mass, of a dark colour, and mixed with a great number of bloody clots and pulpy shreds. It is a very remarkable fact, that the meninges never partake of this disorganization, and that, notwithstanding such extensive destruction of the encephalon, the infants still exist for several days. It is true that, according to the vulgar phrase, they have scarcely a breath of life in them, but still they breathe, cry, and can suck: this is owing to the circumstance that the disorganization generally stops short of the medulla oblongata, which remains untouched, and presides, with the spinal marrow, over the vital functions, which it supports for a short time.

“ I have often found this softening in new-born infants that had died immediately after birth, which disposes me to believe that it had occurred during the existence of the child in the womb.

“ When the medulla oblongata and the spinal marrow are thus softened, the child displays a much inferior degree of vital energy;

its limbs are in a completely flaccid and immovable state; it no longer cries; the beating of the heart is scarcely perceptible; the limbs are cold, and deglutition is hardly possible. The infant speedily sinks under this state of weakness, and the post-mortem examination displays a total disorganization of the nervous centre, which explains the symptoms and the death of the infant.

“This softening is more common in the lateral parts of the hemispheres, and near the corpora striata, than in any other part of the brain. The symptoms are severe in proportion as it extends itself, and approaches more nearly to the medulla oblongata. The prognosis is in the last degree unfavorable, for death appears to me to be its inevitable result.

“Such are the lesions which may result from the degrees and varieties of cerebral congestion in new-born infants. The symptoms are generally characterized by a state of depression and prostration; by venous congestion of the integuments of the limbs, trunk, and face; and, above all, by the peculiar signs of pulmonary congestion, which almost always accompanies that of the brain. It is difficult in young infants to observe the effects of apoplexy of one hemisphere upon the opposite side; for, as I have said, in speaking of the development of the brain, this organ, at the time of birth, is but in the germ; it possesses as yet neither the organic forms, nor the vital properties which it acquires in the progress of its development.” (P. 623.)

The following passage is also well entitled to a careful consideration.

“*Affections of the Stomach, with or without Obstruction of its Functions.* If I took the symptoms of diseases as the basis of my divisions, I should here be obliged to unite diseases the seat of which would have no mutual relation; for the various affections with which the stomach may be affected give rise to symptoms so different, that it is sometimes very difficult to class them together. But, in dividing the diseases which I have taken upon me to describe according to the anatomy which determines them, I am naturally led to give a complete pathology of the stomach. I subdivide the diseases of the stomach which are developed after birth into passive congestions and inflammations.

“1. *Congestions of the Stomach.* We have seen that, at the time of birth, the stomach is almost always injected. Whatever may be the condition of the general or pulmonary circulation, the abdominal vessels are gorged with black and fluid blood, which flows back towards the capillaries, the multiplied branches of which are injected and obstructed, and give to the coats of the stomach an aspect more or less ruddy. When you open the bodies of these children, you find, on the internal surface of the mucous membrane a ramifying capillary injection, or an injection characterized by its bluish aspect; the colour more decided in the lower parts of the organ; absence of tumefaction, with pulpiness of the

mucous tissue; and especially general congestion of the large venous trunks of the abdomen, liver, spleen, venæ cavæ, heart, and lungs. The blood which stagnates in the vessels of the stomach soaks through its layers, mechanically penetrates into the cellular tissue, infiltrates the mucous membrane itself, and is found exuded on the surface of that membrane, so as to colour it with more or less intensity, or even to form a real passive hemorrhage.

“ Examples of passive congestion of the stomach in infants at the breast are so numerous, that I could cite a great number. I shall confine myself to the history of a case of congestion of the stomach, which exhibits all the anatomical characters I have just enumerated.

“ CASE. Auguste Bourbon, six days old, was brought into the hospital, on the 2d of May. His nurse brought him to the Infirmary, stating that the child was often on the point of suffocation, refused to suck, and slept very little. It was of rather a strong constitution, but its face was puffed, and its limbs livid and œdematous; its respiration difficult, its cry stifled and peculiar; the pulse was imperceptible; the pulsations of the heart were feeble and irregular, and rose at most to fifty in a minute: they were so faint, that they were counted with difficulty. The child was wrapped in flannel; frictions with treacle-water were applied to the body and limbs.

“ May 3d. The upper lip was considerably swelled; the child vomited bloody matter. A wash of acidulated decoction of cinchona was ordered.

“ 4th. The debility increased, vomiting of sanguineous matter continued, and in the evening the patient died.

“ The following day a post-mortem examination furnished these appearances: Tumefaction and livid redness of the upper lip; the mucous membrane lining the cheeks was of a livid red; the tongue tumefied, and somewhat inclined to ecchymosis at the root; the œsophagus was much injected; the whole stomach of a livid red; the coats were soft, and easily separated, and also infiltrated with blackish blood. The stomach contained a large quantity of matter, apparently mucous, and of a brown sanguineous appearance, exactly resembling that which the child had vomited. The liver was gorged with blood of an intensely red colour; on its surface appeared a kind of sanguineous dew. Pale fluid blood was effused in the abdominal cavity. The lungs on the left side were crepitant, and filled with air; the lungs on the right side presented appearances the reverse of these, and there was blood effused in the pleura. The heart and the large vessels were very much obstructed, and their tunics were as if soaked in blood; this fluid was also effused in the pericardium. The vessels of the meninges and the surface of the brain were found considerably injected, as also the plexus choroides. The cerebral pulp was of a deep red.”

M. Billard remarks, that the condition described is one of real passive congestion, and of very common occurrence at this period of life; and presumes, that the sanguine congestion of the stomach is not always accompanied with a corresponding condition of the contents of the chest; although he believes that abdominal congestion is dependent on the difficult or incomplete establishment of respiration or circulation, which is also a common phenomenon in the early days of existence.

Nothing can exceed the accuracy and patient industry with which the observations are made and recorded. Of course we shall be acquitted of a want of just appreciation of such contributions to our knowledge; they form an integral part of a system, and are indispensable to its perfection. Pathology has of late years received great and unprecedented attention, and its cultivation has received a corresponding impulse. Deprecating misconstruction by its enthusiastic devotees, we may be permitted to doubt the extent of the utility of exclusive attention to the structural changes effected by disease. The conviction that improvements in the treatment of disease are owing less to morbid anatomy than to a careful and philosophic analysis of symptoms, is now indelibly impressed upon those whose opportunities justify our confidence. The most valuable knowledge in prognosis and treatment has ever been, and from its nature always must be, derived from the observation of symptoms and the operation of remedies. This knowledge is stigmatized as empiricism by those who vainly hope that the study of abnormal anatomy can reduce the practice of physic to the certainty of the exact sciences. We are willing to admit the great probability (perhaps absolute certainty) that maladies referred to functional derangement are necessarily occasioned by some deviation from healthy structure, generally designated as *disease*, in contradistinction to *disorder*. This admission will avail but little to our objectors; for if these changes, the vast majority of which are not appreciable, could be detected with certainty, we should not thereby be advanced a line in the improvement of their treatment. The action of a disturbing cause may have for its effect a morbid change of structure; this in its turn may become the cause of functional derangement, which ultimately may be the cause of death. It is here evident that the cause producing the change of structure may be called primary; while the effect of the disturbing action, the change of structure itself, may be regarded as an intermediate, or second cause, which may be an efficient but not a necessary cause of death. Now,

where it is only an efficient cause of death, the original cause cannot be found on dissection.

In the majority of mortal diseases the structural change is not the original cause, and we insist that a drawback on the value of morbid anatomy, as estimated by some of its worshippers, is its inadequacy to shew that condition which alone it is useful to know, viz. the state of things before the structural change be wrought, instead of exhibiting results which to know, furnishes but rarely, and in a very moderate degree, information how the evil might be averted. Often the post-mortem appearances seem to indicate, and would certainly influence, if they could previously be foretold, a mode of treatment known by experience to be hurtful: delirium tremens, and the state of the abdomen after lithotomy, bronchitis, adynamic fevers, and some types of puerperal fever, are cases in point. Even the state of an organ taken *per se* would sometimes suggest a mode of treatment, the adoption of which had actually produced death. If, in practice, the etiology of disease, the effects of the influence of remedies, and the minor knowledge deduced from morbid dissections, were applied in conjunction, the art would be increased in usefulness, as it would be elevated in philosophy. Modes of successful practice cannot be deduced from evidences furnished by the state of the organs, excepting in a very few cases; and these become more rare in proportion to their severity: witness phthisis pulmonalis, hydrophobia, cancer, erysipelas, melanosis, fungus hæmatodes, tubercles, scrofula, and others. Moreover, the maladies in which change of structure is not so manifest, or perhaps not even apparent, form a good portion of our heritage of ills; and these will be in a degree neglected, if we rest our hopes of instruction on so insufficient a foundation.

In truth, there is in medicine, as in manners and morality, a fashion, and morbid anatomy is now the mode; for the predilection we are indebted to the French, and we only complain of its too exclusive cultivation. Justice compels the admission, that our scientific obligations to our neighbours are too great to be speedily repaid: less national critics might doubt the possibility of redemption, yet we do not despair, if a generous rivalry be substituted for too close an imitation.

Again we disclaim anything disapprobatory of M. Billard's work, which we cordially commend, advising its immediate translation by any one disposed to a profitable and honourable employment.

On the Influence of Minute Doses of Mercury, combined with the appropriate Treatment of various Diseases, in restoring the Functions of Health; and the Principles on which it depends.
By A. P. W. PHILIP, M.D., F.R.S. L. and E., &c.—London, 1834. pp. 112.

DR. WILSON PHILIP is well known to the profession as a scientific physiologist, and a distinguished practical physician: like all other mortal men, however, he has his failings, and one of them is too great a proclivity to hypothetical reasoning.

Dr. Philip has the merit of having first suggested the employment of very minute doses of mercury; and those who have taken the trouble to try the experiment cannot have failed to verify, to a considerable extent, the facts he has brought forward. Our author's view of this subject is not less consonant with reason than approved by experience. The art of medicine is always most successfully exercised when it imitates, as much as possible, the restorative efforts of nature. In acute diseases the system relieves itself by means commensurate in activity with the disease to be overcome: an affection which immediately threatens life is resolved by a rapidly increased secretion, a hemorrhage, or a sudden metastasis; while disorders of more protracted duration are overcome by a more gradual and less perceptible exertion of the sanative powers of the constitution.

The beneficial effects of mercury in various chronic diseases have been long known; but, when used in the ordinary way, the effects of the remedy are sometimes more serious than those of the disease, and it is not uncommon to witness, in the pale and emaciated victim of long-continued salivation, an impressive though not very cheering monument of the powers of the divine art. Administered, however, in the manner recommended by Dr. Philip, mercury becomes a safe as well as active remedy, in the use of which, if we occasionally fail to do good, we shall at least avoid the mortifying consciousness of having done harm.

“ Large doses of mercury cannot be repeated at short intervals without often rendering the remedy as pernicious as the disease, and sometimes more so; and when they are given at distant intervals, the effect of one dose is frequently lost before another is taken; so that it often happens that little or no progress is made in the cure, and there is nothing but temporary relief to compensate for the debilitating effects of each dose; while, with respect to the minute doses, although each does little, this little it does without any strain to the constitution, and the next dose comes before the effect is lost; so that a gradual accumulation of the beneficial effect

is obtained, and that, if the circumstances I am about to point out be attended to, without any injurious effects to deduct from it. The part affected is thus gradually solicited to resume its functions, and though slowly, at length effectually restored." (P. 2.)

Our author observes, that, although the utility of minute doses of mercury is most conspicuous in chronic diseases, and when its action is slow and imperceptible, still, where its more powerful and obvious effects are desired, these also may be obtained by means of the same minute doses.

"It is remarkable that, notwithstanding the general and long continued employment of mercury, it should not have been known that all its constitutional effects, not excepting complete salivation, may generally be obtained by such doses as half, or even the third part of a grain of blue-pill taken three times a day; that is a dose only equal to the twentieth or thirtieth part of a grain of calomel; for a grain of calomel is equal, whether we regard its purgative, or, when divided into minute parts, its alterative effects, to ten grains of blue pill. If such be the case, what should induce us to employ larger quantities, except the disease requires a more rapid effect than can be obtained from such doses, or, from some peculiarity in it, or the habit of the patient, the sensibility to their effects is impaired? No other person, as far as I know, has been led to the use of these doses of mercury, which, I think it will be admitted from the facts I am about to state, constitute in a great variety of cases its most beneficial employment." (P. 4.)

It sometimes happens that minute doses of mercury will excite ptyalism when large doses have failed to do so. An interesting example of this will be found in the following case:

"A lady came from a great distance to London, for the purpose, she said, of being salivated; which she had been told would relieve her from a bilious complaint, under which she had laboured for many years. For this purpose, she had taken, in vain, in the country, very large doses of mercury, much beyond the largest usually given in this climate. I saw no occasion for salivation, but directed for her, with other means, half a grain of blue pill three times a day. Her case did not require frequent visits; and not being then so well acquainted with the effects of the plan, I thought, as the mouth had resisted such doses, that no precautions respecting it were necessary, when, at one of my visits, after she had taken the medicine for about a fortnight, I found her in a state of severe salivation; the whole of the face was swelled, and she was for a considerable time confined to bed. At no great distance of time she left London well; and I learned from her sister, who two years afterwards was placed under my care, that she remained so. This lady was thus permanently cured by a quantity of mercury, the whole of which did not exceed what she had taken in vain, for a great length of time, every two or three days." (P. 35.)

Admitting the frequent utility of the small doses of mercury recommended by Dr. Philip, and the merit of that gentleman in calling the attention of the profession to the subject, we will not deny that we have experienced some disappointment from the perusal of this publication. On seeing its title, we naturally expected that the cases to which minute doses of mercury are particularly applicable would have been duly set forth, and illustrated by a sufficient number of individual examples derived from actual practice: instead of this, however, we find a large portion of the treatise occupied with matter, which, though valuable in itself, is already before the public in Dr. Philip's former works, and which is not always particularly relevant to the subject under consideration. We find also several physiological generalizations whose accuracy is extremely doubtful, and much speculation which is of no use but as an exercise of ingenuity.

The following extract from the chapter on the *modus operandi* of mercury, affords an example of the theoretical kind of reasoning alluded to above:

“ I have, in my ‘ Inquiry into the Laws of the Vital Functions,’ been at much pains to point out that there is no agent capable of affecting the living animal body that does not possess both a stimulant and sedative power with respect to it, according to the degree in which it is applied, and the state of the body at the time of its application; the stimulant arising from the less, the sedative from the greater application of it; and that the degree in which agents possess the stimulant and sedative power, although in the same agent always in the same proportion to each other, is in different agents, in no determinate, but every possible proportion.

“ Thus spirit of wine possesses a great degree of stimulant compared with its sedative tendency, which only appears when it is taken in excess; while tobacco possesses a great degree of the sedative, and little stimulant tendency, which appears only when it is applied in very minute quantity.

“ The sedative effect of some agents, as of opium, is chiefly exerted on the sensibility; of others, as tobacco, on the moving powers of the animal system. While the influence of the former, therefore, may be salutary, that of the latter, except under very peculiar circumstances, is always pernicious. There may be some objection to using the term sedative for agents of both descriptions. In this sense, however, it is used by writers, although not constantly, but I think it is better thus to employ it than to introduce a new term, as after this explanation no ambiguity can arise from it. Besides, as both act by diminishing the vital powers, it is convenient that there should be an appellation common to both; and what I am about to say will be sufficiently distinct, without a term

to designate either alone. By sedative, then, I mean whatever depresses the powers of the system, whether sensitive or motive, and whether it affects both or either, although the more common use of the term confines it to the agents which impair the sensibility.

“No agent can impair the sensitive without more or less impairing the motive powers, because the latter in many instances depend on the former; but it is very possible to impair the motive without causing any diminution of the sensitive powers, and even with the effect of a morbid increase in them, because the derangements which accompany the weakened powers of life often prove to the sensitive powers a fruitful source of irritation. Thus, that class of sedatives whose operation is on the motive powers alone, are often doubly pernicious. Mercury, like other agents, possesses the sedative as well as the stimulant property; and its sedative property appears to be wholly exerted on the motive powers, for when it appears to lessen the sensibility, this effect seems to arise merely from its removing some cause of irritation. Its sedative tendency is very different in different constitutions; and in some it exists to a degree that wholly precludes its employment. The sedative effects of mercury, then, as of all other medicines possessing similar properties, are known by its producing a state of debility, with or without more or less nervous irritation, according to the circumstances of the particular case.” (P.10.)

All this is in the very worst style of physiological reasoning: the opinion here expressed, that every substance capable of affecting the living system is, according to circumstances, a stimulant or a sedative, is one of those vague generalizations on which it is useless to argue, because it would take half a lifetime to arrange the preliminaries, and the remainder to discuss the question; with a strong probability of coming to no conclusion after all. The physiological history of the last century should for ever deter us from speculations of this nature, which can never give birth to anything but chimeras.

Our author has also hazarded some very bold and gratuitous assertions, which he does not attempt to bear out by any kind of proof: thus, when he tells us that tobacco is more injurious than opium, or indeed that it is, generally speaking, injurious at all, he lays down a position which would, we suspect, be stoutly contested by the crew of an English line-of-battle ship, who consume tobacco most exorbitantly, but who nevertheless are not usually in a very delicate state of health, and who have muscular energy enough left to floor at least six times their number of the shrivelled and mummified votaries of opium. Again, when Dr. Philip asserts, that the liver is “an organ of more intimate and extensive sympathy than the stomach,” (p. 49,) we do not think he will gain

many proselytes to his doctrine, which, we humbly conceive, is in the face of all observation.

The chapter on "the cases to which the minute and frequently-repeated doses of mercury are adapted, and the circumstances to be attended to in their employment," forms, on the whole, a very fair general exposition of the treatment of dyspepsia and its consequences; but, as it contains comparatively little about the minute doses of mercury, and much about divers matters which are already abundantly familiar to practitioners, we shall make no extracts from it.

The remarks "on the process by which organic disease is established" are in themselves instructive, though, like every thing else of our author's, too theoretical; but, as they consist chiefly of a condensation of some of Dr. Philip's former writings, or of very obvious inferences from them, we shall not dwell upon them here.

This treatise concludes with some observations on the employment of minute doses of mercury in *acute* diseases. The following, on protracted fever, are well worthy of attention.

"Every physician must have met with cases of fever which neither subsided as usual, nor were followed (as happens in favorable cases,) by a good appetite and a more or less rapid recovery of strength. Either the febrile symptoms continue to recur, or the patient remains languid and dispirited, and what are called the remains of the disease hang about him. In by far the majority of such cases, it will be found that more or less permanent functional disorder of the liver has been established; and although, from the chronic nature of this affection, it has not prevented the subsiding of the more urgent symptoms, it supports a constant tendency to their renewal; and, where it is not sufficient to produce this effect, it frequently prevents the recovery of the appetite, and always of the strength and spirits. The state of the liver can only with certainty be ascertained by an examination of the regions of this organ, and of the duodenum, where some tenderness or fulness will be discovered, if the cause which impedes the recovery exist in the liver, which, in consequence of the more extensive sympathies of this organ, it will be found to do in at least nineteen such cases out of twenty. Everyone will agree that, under such circumstances, all vigorous measures of a debilitating nature are out of the question; but it is not at all uncommon to see such cases aggravated by the attempt of the practitioner to restore the strength by powerful tonics, by which both the tendency to a recurrence of the fever and the oppression and restlessness are increased; and I have seen many such instances, in which the patient, guided by the effects of these means, has refused to pursue them. In the most favourable cases of this kind, they tend only to support the patient under his disease, not to relieve it; and, if their effects on

the liver be not counteracted by the efforts of the constitution itself, never fail eventually to increase the mischief. The only effectual means are those which restore this organ, which is only to be here attempted by such as suit the debilitated state of the patient.

“In many instances it may be effected by a few grains of the blue-pill, taken every second night, and gently carried off by the bowels on the succeeding morning, combined with means which prevent the return of the febrile symptoms, and such stimulants as the patient can bear without any tendency of this kind, or any increase of the restlessness and oppression. In the more obstinate cases such means fail; and then I know of none which will succeed, except the substitution of the minute and frequently-repeated for the occasional larger mercurial doses, combined with the other means just mentioned, and regulated on the principles I have explained. The existence of such a case as that I am describing is, I believe, always the effect of the state of the liver having been overlooked in the course of the fever; and its frequency points out in a striking manner the necessity of attending to the state of this organ in all diseases of prolonged excitement.” (P. 100.)

The disorder of the liver here adverted to is, no doubt, a frequent cause of the protraction of fever: as far as we have observed, however, quite as common a cause of such protraction consists in irritation of the mucous membrane of the bowels, kept up by the injudicious use of *purgatives*. We have seen fever kept up for days, nay, for weeks, beyond its natural duration, by purgative medicines, given for the purpose of keeping the bowels regular. Let these be relinquished in favour of laxative enemata, should such be required, and the patient will very often become rapidly convalescent.

Dr. Philip has made an allusion to the use of minute doses of mercury in chronic functional derangement of the heart, to which much attention is due. The case of Mr. Hobson is cited, which was published by that gentleman himself, in the *Medical Gazette* for the 22d of October, 1831.

“Mr. Hobson had for thirty-four years laboured under symptoms of diseased heart, to which all the powers of the constitution were yielding. He had become pale and œdematous, with habitually oppressed breathing, which in a great degree incapacitated him for all active duties, and rendered him subject to frequent attacks, that immediately threatened his life. Being a medical practitioner of the metropolis, he of course had the advice of many, and those the most skilful, and was regarded by all as labouring under confirmed organic disease of the heart; so that no attempt was made but with a view to present relief, and he had not for some years left his house without his name and address in his hat, fearing that he might not return alive. I was led from many circumstances, notwithstanding the severity and long continuance of the symptoms, to regard the affection of the heart as chiefly sympathetic. The function of the

liver was always more or less, and occasionally much disordered; and several of the symptoms led me to believe that if organic disease of the heart did exist, it was not in sufficient extent to cause the effects I witnessed. For many months he steadily pursued the plan of treatment which I have laid before the reader, taking half a grain of blue-pill three times a day, combined with such means as tended to restore the digestive organs, and relieve the occasional more severe attacks. This plan had not been continued for many weeks before symptoms of amendment appeared, and in the course of a twelvemonth I had the satisfaction to see him relieved from every symptom of diseased heart. His colour became healthy, the dropsical swellings left him, and he was restored both to the appearance and functions of health." (P. 110.)

Our author adds, "I could mention several similar cases, though of less continuance; in one of which the symptoms of organic disease of the heart were quite as strongly marked, and which, after a continuance of many years, yielded as perfectly to the same means."

On the whole, we could have wished that a practical subject, like that treated of in the present publication, had been considered in a more practical manner. The truth is, that, extraneous matter apart, all that Dr. Philip had to say might have been very well communicated in a few pages of a journal, in which perhaps it might have found as appropriate a place as in a separate treatise.

Cases illustrating and confirming the Remedial Power of Inhalation of Iodine and Conium in Tubercular Phthisis, and various Disordered States of the Lungs and Air-Passages. By Sir CHARLES SCUDAMORE, M.D., F.R.S., &c. *Second Edition.*—London, 1834. 8vo. pp. 227.

OF the occasional usefulness of inhalation in diseases of the lungs, we, in common with all who have witnessed such experiments, have no doubt; but the general testimony in favour of the practice is by no means so enthusiastic as that borne by Sir Charles Scudamore. Unprejudiced and competent judges still testify its utter inadequacy to do more than allay irritation in some cases; while in others it has proved a source of excitement that has been found highly injurious, and by no means controllable: in the majority of instances, however, its inertness in respect of permanent effects has been demonstrated to a degree deterring from repetitions deemed useless. "The rationality of applying some remedial agent in a direct manner to the seat of diseased action, in certain conditions of pulmonary and bronchial disease, has been admitted and acted upon for many past ages." Thus says the

author: to whom it may be replied, that the difficulty of producing any enduring and beneficial effects has been admitted and acted upon for a good part of that time. In some bronchial affections, the advantages obtainable by such agents may reasonably be hoped for to a greater extent than in tubercular excavations of the lungs; for in those cases the disorganization, if any, is rarely to an extent incompatible with the patient's existence. While, in the cavernous ulceration of tubercular phthisis, the mischief is seldom confined exclusively to the cavity. Do we not continually see tubercles in every stage, from the miliary one to maturation, complicated with other diseases of the respiratory organs? There is no greater mistake, and no one more frequently committed, than the losing sight of the fact that phthisis is not merely a local disease. The tendency of this error may have retarded our advancement in the *methodus medendi* of this reproach to our art, which suffers as much from its supposed infallibility by one sect, as it does from the ignorant scepticism of another.

To many readers, Dr. Scudamore's formulæ for inhalation will be acceptable.

"As, by mixing the tincture of iodine with water, the iodine itself separates into flakes which become precipitated, and as 7000 parts of water are required for its solution, I found it expedient to form a preparation which should be uniform, and preserve its transparency when united with water in any proportions. This admixture is effected by adding together iodine, hydriodate of potash, distilled water, and alcohol. The following is the formula which I prefer on commencing with the tincture of iodine inhalation:

R. Iodin. gr. v.
 Potassæ Hydriodat. gr. iij.
 Aquæ distillat. ℥v.
 Alcoholis, ℥ij.
 Tinct. Conii,* ℥vi. M. fiat mistura.

"I found it expedient to use the smallest proportion of the hydriodate which would serve the purpose of rendering the iodine soluble, and not enough to engage much of the iodine itself. The addition of the tincture of conium is important; as, together with its distinct operation as a sedative, it softens the action of the iodine; and this property of diminishing the sharpness of the iodine, during the process of inhaling, is more effectually produced by the previous combination of all the ingredients; but the mixture should not be long kept, as in that case the iodine would undergo considerable change, and its power become too much reduced.

* "A saturated tincture."

Also, when it is desired to have the iodine solution in the most active state, the conium, if mixed with it at all, should be added only at the time of using the inhalation.

“The following are the other medicinal substances which I have used for the purposes of inhalation :

“A saturated solution of pure chlorine gas in distilled water.

“A saturated tincture of stramonium, prepared from the dried leaves and stalks.

“A saturated tincture of belladonna, prepared from the dried leaves.

“A saturated tincture of the lobelia inflata.

“A spirituous tincture of ipecacuanha, prepared from the roots.

“A saturated tincture of digitalis.

“Hydrocyanic acid, of the specific gravity .992.

“The pure sulphuric æther.” (P. 8.)

The following observations are judicious:

“For the relief of severe pain I should give tincture of opium, or the powder or extract, to a patient with whom opium did not disagree, in preference to any other preparation; having most reliance on all the properties of opium combined, where I wish to prescribe this medicine as an anodyne. We well know also in how remarkable a degree great pain modifies the effects of opium; so that an individual who would be disordered in the most inconvenient manner by opium, if taking it for the purpose of procuring sleep, could have recourse to it in free doses, with every good result, when using it as a remedy for severe pain.” (P. 52.)

Ignorance of these points well explains the odium which opium often unjustly incurs for “disagreeing.” Numerous opportunities and ample observation have convinced us that opium never produces any but the best effects, when administered in efficient doses for the relief of severe pain, or as an auxiliary to bloodletting in inflammation.

We copy one of the cases added in the present edition, as a fair sample of our author’s style and method of treatment:

“*CASE III. Very irritable cough; much soreness of the larynx on pressure, and which, in conjunction with the nature of the expectoration, rendered it probable that there was ulceration of the mucous membrane.*

“A lady, aged fifty-six, of slight figure and delicate constitution, had been out of health for two years, occasionally affected with an intermittent, and always complaining of much debility. She caught a severe cold; this was speedily followed by cough, which fixed itself in a very troublesome manner. I found her complaining of much soreness and tenderness to pressure on the larynx, just below the thyroid cartilage. She stated that her troublesome cough had continued, without relief from any treatment, for six months. Eight blisters at least had been applied over the affected part, and

various medicines administered. Every afternoon, at about the same hour, a paroxysm came on of incessant cough, attended with the most remarkable difficulty of breathing, suspending the power of all bodily exertion; and this state of suffering continuing till evening, she was rendered absolutely prostrate with languor. She had a quick, weak pulse. Her nights were restless, and, towards the morning, perspiration was considerable. There was much expectoration, of decidedly purulent appearance, frequently mixed with blood; and the tests which I employed convinced me of the fact of purulent secretion. I thought that there was strong evidence of an ulcerative process having been established in the mucous membrane of the trachea.

“ I directed, at first, an inhaling mixture composed of the saturated tincture of conium, tincture of ipecacuanha, and hydrocyanic acid; of the first medicine thirty minims, of the second twenty, and of the last two, for each inhalation, adding two of the hydrocyanic acid, for the latter part of the process; this agreed perfectly and was useful. After a few days, having more confidence in the curative agency of the iodine than any other remedy, and as the tracheal irritation was diminished, I did not delay longer the trial of the compound iodine mixture as at p. 9. Of this, ζ iss. was, as usual, divided into two doses, and this was used three times a day. It was gradually increased to five drachms for each inhalation. She considered that the blisters weakened her without rendering her any countervailing benefit. I applied the cantharides solution (p. 90,) with an excellent effect, and it was repeated occasionally. I prescribed the sarsaparilla mixture with alkali to be taken with milk, and this was afterwards changed for the sulphate of quinine draught. Acetate of morphia was given at night, in small doses, with great advantage. The diet was supporting, and the dinner beverage consisted of port wine and water, or sherry and water, as she might choose. The case prospered from the first moment. The inhalation invariably agreed, and the occasional aggravation of cough during the process was fully compensated by the increased freedom of expectoration, and the subsequent comfortable relief of the cough and the breathing. The appearance of the expectoration gradually improved, and at the end of two months the cure was complete.

“ *Observations.* It is probable that practitioners not acquainted with the useful properties of the iodine and conium inhalation, would have apprehended injurious irritation from the direct application of this stimulant; but I entered on the treatment with confidence, and happily was not disappointed by the result. This lady had so much despaired of relief, from the failure of all previous means, that she had almost resolved to avoid any new measures, when I was consulted. The direct action of the iodine changed the function of the mucous membrane of the trachea, and induced healthy action. If not in a state of actual ulceration, it was bordering on this condition. The effect of the liquid preparation of

cantharides deserves comment. The counter-irritation was decidedly beneficial, and the patient did not object to the application, as she had done to the regular blister-plaster. I do not propose the use of this liquid as calculated to supersede that of the plaster, which, in most instances, excites a higher degree of action, and therefore will often prove the more valuable remedy; but there are many occasions on which it proves very convenient and preferable, on account of the facility of its application, the great promptness of its action; its odour being rather agreeable than otherwise; and the unpleasant qualities of a plaster being avoided." (P. 164.)

Should any one do us the honour of appealing from the judgment of Sir C. Scudamore to ours, we should be willing to confess that in phthisis inhalation may be commendably employed, though the chance of cure be small; but that in bronchitis, and some other diseases, it is an excellent remedy: in short, to use the expression of Dr. Mudge, it is "a radical cure for a catarrhus cough."

Illustrations of the Elementary Forms of Disease. By ROBERT CARSWELL, M.D., Professor of Pathological Anatomy in the University of London, &c. Fasciculi I.—IV. London, 1833-4.

THE fasciculi now before us contain an excellent account of Tubercles, Carcinoma, and Melanoma, illustrated by coloured plates, alike admirable for their truth and their beauty. The following observations on the curability of tubercular disease are remarkably interesting:

"Every physician must believe in the cure of scrofulous swellings, even without swelling or suppuration having taken place in them. Such cases, I am aware, are regarded by some as simple chronic inflammatory swellings of the lymphatic glands; but this opinion I by no means conceive to be correct, for, among the great number of cases which I have examined, I have never found these glands, when generally affected, exempt from the presence of tuberculous matter; and, even when the cutis is pale, (if they are situated under this tissue,) I have found them almost completely filled with this morbid product. When therefore enlarged glands in a scrofulous patient ultimately disappear, we may conclude, almost to a certainty, that we have witnessed the cure of a tubercular disease. *Tabes mesenterica* has been known to terminate favourably. I had an opportunity of examining, in a case of this kind, the mesenteric glands, and thereby of determining the certainty of the cure. The patient, who, when a child, was affected with this disease, and also swellings of the cervical glands, some of which ulcerated, died, at the age of twenty-one, of metritis, the seventh day after delivery. Several of the mesenteric glands contained a dry, cheesy matter, mixed with a chalky-looking substance; others were composed of a firm cretaceous substance; and

a tumour, as large as a hen's egg, included within the folds of the peritoneum, and which appeared to be the remains of a large agglomerated mass of glands, was filled with a substance resembling a mixture of putty and dried mortar, moistened with a small quantity of turbid serosity. In the neck, and immediately behind an old cicatrix in the skin, there were two glands, which contained in several points of their substance (which was healthy,) small masses of hard cretaceous matter.

"I have also been able to trace the several steps of the same curative process in the bronchial glands, in individuals who had recovered from scrofula and pulmonary phthisis, but who died some time after of other diseases. I have found these glands situated at the bifurcation of the trachea, where they are generally most frequently and most extensively affected, as well as some way up the trachea, containing a greater or less quantity of a substance resembling putty or dry mortar, the consistence of which was sometimes equal to that of sandstone or bone. This substance has generally a stellated form, or presents a number of sharp spiculæ projecting from a central mass, which excite inflammation, ulceration, and hence perforation of the walls of the trachea or bronchial tubes with which they come in contact. A direct communication is thus formed between the cavity of the air-tubes and the diseased glands, through which the cretaceous bodies pass; and they are rejected along with the expectorated fluids. I have seen several examples of cure of tubercular disease of the bronchial glands effected in the manner just described. The patients were generally advanced in years, and had frequently observed the cretaceous matter in their sputa, portions of which have been shown to me, and were found to present all the physical characters of that which was afterwards detected in the bronchial glands.

"When these glands have evacuated the whole of their contents, they are found atrophied, and converted into a fibrous tissue, which fills up the external orifice of the perforated air-tube. The accidental opening now contracts, becomes obliterated, and leaves in its place a puckered depression or cicatrix, seen on the internal surface of the air-tube.

"Similar appearances, indicating the removal of the serous and albuminous parts of the tuberculous matter, and the condensation of its earthy salts, have frequently been observed in the lungs of persons whose history left no doubt as to their having, at some period of their lives, been affected with tubercular phthisis. The important fact of the curability of this disease has, in my opinion, been already established by Laennec. I shall therefore only shortly allude to those changes which take place in the tuberculous matter, pulmonary tissue, and bronchi, which indicate that this fortunate termination of phthisis has taken place.

"The tuberculous matter, whether contained in the bronchial tube, the air-cells, or cellular tissue of the lungs, has assumed a dry, putty looking, chalky, or cretaceous character. If these

changes are observed in an excavation, the surrounding pulmonary substance is generally dark-coloured; and, if the excavation exists in the course of large bronchial tubes, those situated between the excavation and the periphery of the lungs are obliterated, while those in the opposite direction terminate either in a short extremity near the excavation, or are continuous with the lining membrane or accidental tissue which encloses the altered tuberculous matter. The existence of this accidental tissue is an important circumstance as regards the cure of tubercular excavations. It is formed by the effusion of coagulable lymph on the surface of the excavation, or in the substance of the contiguous pulmonary tissue; has at first, and so long as a ready exit is afforded to its secretion, the characters of simple mucous tissue; but at a later period, and especially when the latter condition is wanting, it becomes gradually and successively converted into serous, fibrous, fibro-cartilaginous, and cartilaginous tissues.

“The cartilaginous and the osseous transformations of this accidental tissue are however rare, particularly the latter. It much more frequently retains the fibrous character, and possesses the property of contracting so as to diminish the bulk of the excavation, and carry with it the pulmonary tissue with which it is connected. The diminution of bulk which accompanies the removal of the tubercular matter, and the contraction of this accidental tissue, give rise to a puckering of the lungs, which is best seen where the pleura is forced to follow the retrocession of the pulmonary substance beneath it, and around what is called the cicatrix; for there sometimes remains only a small globular, oval, or even linear portion of fibrous or fibro-cartilaginous tissue, in a part of the lung where, from the extensive puckering around it, there must have formerly existed an excavation of considerable extent. When the tuberculous matter is contained within the bronchi, or a cavity formed by the dilatation of the air-cells, it does not appear that any accidental tissue is formed during the progress of the cure. The matter is gradually removed by expectoration, if the bronchi remain pervious, or by absorption, if they become closed; and then we have the same obliteration of the terminal branches already alluded to, and the same puckering of the surrounding tissues: all these appearances have been represented in plate iv., and will be better understood when pointed out in the figures.”

The fasciculus on Melanoma, and the two which are devoted to Carcinoma, are also exceedingly good; but the long extract with which we have already gratified our readers forbids our indulging in any other one.

We trust that the Illustrations will meet with such patronage as may not only encourage Dr. Carswell to complete this great work, but may reward him for the immense labour which it must have cost him.

A Demonstration of the Nerves of the Human Body; consisting of Four Parts. By JOSEPH SWAN. Part IV. London. Folio.

THESE magnificent plates, containing the delineations of the spinal nerves, complete Mr. Swan's great work, and will add fresh lustre to his reputation.

As a dissector of the nerves, Mr. Swan has long been without an equal, and the previous parts of this unrivalled work have shown that our author has had the sense and spirit to employ artists worthy of embodying the results of his anatomical investigations. In a case of this kind, panegyric, however richly deserved, is superfluous; for every one will buy the book who can afford it. Had we room we should be tempted to make many quotations; for, though we must still leave behind the "*animæ dimidium suæ*,"—though we could not extract the drawings of West, nor the engravings of Finden,—yet the other half is so good, and Mr. Swan writes on the nerves with so masterly a command of the subject, that we would willingly linger over his ample pages, and teach our readers some of the more refined mysteries of dissection. As it is, we must terminate this brief notice with a single extract.

"Whoever prosecutes the anatomy of the nervous system attentively, adverting at the same time to its physiology and pathology, as far as these are already known, can hardly fail of being convinced that every organised part of the animal body is supplied with nerves; and, as different degrees of perception are called for in different parts, so these are more or less supplied with nervous branches accordingly. The organs of the senses are very important, and are therefore furnished with the greatest number. Next in importance are the muscles, whose actions are of such concern to the body; and these are furnished with nerves in proportion. The viscera, the glands, and blood-vessels, receive many nerves; but the bones, tendons, &c., are passive, and contain only a small proportion; no more indeed than might be supposed necessary for maintaining such a degree of living action as would preserve them from injury, and form that connexion with every other part required for the harmonious discharge of the functions of the whole. With such a variety in the distribution of nerves, can it be a matter of wonder, that there should be so much difficulty in tracing the small branches on the least sensible parts; or, because the demonstration cannot always be accomplished, are these to be considered destitute? Certainly not; for, if nerves have been satisfactorily exhibited under peculiarly favourable circumstances, the difficulty, or even the failure, of accomplishing such dissections generally, is no proof either against their reality in the few examples, or their existence in every subject.

"So complicated is the structure of an animal body, that how-

ever diligent the anatomist may be in acquiring the art of separating its different textures, it is impossible for him to see how the ultimate particles are disposed. The arteries, and veins, and absorbents, may be so filled with different substances, as to be traced with accuracy to the utmost degree of minuteness; but with the nerves it is very different; for these the anatomist can only trace to a certain extent with a sufficient assurance that what he is following is nerve. When he gets beyond this point, the surrounding parts become so similar to the nervous filaments as to make the separation and dissection difficult, but not so much so as has been generally imagined. By the most careful dissection nerves may be followed to their termination in a delicate membrane, which will be found, on investigation with a magnifying-glass, to consist of a flexus of minute filaments.

“Many are apt to be too much guided by notions they have early imbibed respecting the form, substance, &c. of various parts of the body, and cannot at first reconcile it to themselves with regard to the nerves, that anything in the form of a thin membrane can perform the functions of a round or thick rope-like substance. Nevertheless, this is seen in the termination of the optic nerve in the retina, and admitted because it is so obvious, for it is so slightly connected with the other membranes as to be easily separated, and examined in the most satisfactory manner. But in some parts of the body, the nerves become interwoven with organs of so firm a texture as not to be capable of the separation necessary for exposing their exact termination; whilst in others this may frequently be seen in the form of a fine membrane. The nerve supplying a muscle terminates in a fine membrane, which is extended among the fibres, and is continuous with that usually termed cellular. When it has resolved itself into this membrane, and has to spread itself over the whole of a muscle, because it cannot be followed into all the fibres, will it be asserted that these are destitute? And if this cannot fairly be maintained, in like manner, when a nerve has been traced to any other part, and its termination found similar to that in the muscle, may it not be concluded that the whole of this part is likewise supplied with nerves?” (P. 34.)

Report of the Experiments on Animal Magnetism, made by a Committee of the Medical Section of the French Royal Academy of Sciences; read at the Meetings of the 21st and 28th of June, 1831. Translated, and now for the first time published, with an Historical and Explanatory Introduction, and an Appendix. By J. C. COLQUHOUN, Esq.—Edinburgh, 1833. 8vo. pp. 252.

THE author of this work (a Scottish barrister, we believe,) is an enthusiastic magnetiser,—that is to say, on paper; for we do not find that he has magnetised, or been magnetised, himself; but he has collected and narrates everything relating to this curious art in a clear style and gentlemanly tone of feel-

ing. He thinks that traces of a knowledge of the art are to be found in the customs and rites of the most remote ages, and that something very like the modern practice is mentioned by one of the oldest of the Greek poets:

“In the following verses of Solon, we have the earliest and perhaps the directest testimonies to the practice of manipulation, as a sanative process, to be found in antiquity. It is surprising that they should have hitherto escaped the notice of all the writers upon animal magnetism, many of whom have exercised great diligence in collecting the allusions to this process which occur among the ancients.

Πολλάκι δ' ἐξ ὀλίγης ὀδύνης μέγα γίγνεται ἄλγος,
Κοῦκ ἂν τίς λύσαιτ' ἥπια φάρμακα δούς.
Τὸν δὲ κακαῖς νούσοισι κυκώμενον ἀργαλείαις τε
Ἀψάμενος χειροῖν, αἴψα τίθησ' ὑγιή.

Solon, *apud Stobæum*.* (P. 35.)

Passing over the whole of the introduction, which is replete with interesting matter, we come to the body of the work itself. It appears that some years since M. Foissac addressed a letter to the Academy of Medicine, requesting that an inquiry might be made into the phenomena of animal magnetism. A committee was appointed in pursuance of his request, February 28, 1826: it consisted of MM. Bourdois, Double, Itard, Gueneau de Hussy, Guersent, Fouquier, Laennec, Leroux, Magendie, Marc, and Thillaye. M. Laennec being obliged to leave Paris, M. Huson was substituted in his stead; MM. Magendie and Double did not attend the experiments. The committee appear to have carried on their investigations for about five years, with every variety of success and failure. Some of the successful cases admit of an easy explanation: the parties may have been tutored, or may have feigned an insensibility to noises, &c.; but there are others, again, which do not admit any solution of this kind. For instance, a man named Paul exhibited what the magnetists call *clairvoyance* in the presence of the committee:

“While his eyelids were kept closed by M. Segalas, there was presented to him a volume which the reporter had brought along with him. He read upon the title-page, *Histoire de France*. He could not read the two intermediate lines, and upon the fifth he read only the name, Anquetil, which is preceded by the prepo-

* “Stanley, in his *History of Philosophy*, (1666,) has given us a very competent translation of these verses:

“The smallest hurts sometimes increase and rage
More than all art of physic can assuage;
Sometimes the fury of the worst disease
The hand, by gentle stroking, will appease.”

sition *par*. The book was opened at the 89th page, and he read in the first line—*le nombre de ses*—he passed over the word *troupes*, and continued: *Au moment ou on le croyait occupé des plaisirs du carnaval*. He also read the running title *Louis*, but could not read the Roman cipher which follows it. A piece of paper was presented to him, upon which were written the words, *Agglutination* and *Magnetisme Animal*. He spelt the first, and pronounced the two others. Finally, the *procès-verbal* of this sitting was presented to him, and he read very distinctly the date, and some words which were more legibly written than the others. In all these experiments the fingers were applied to the whole of the commissure of both eyes, by pressing down the upper upon the under eyelid, and we remarked that the ball of the eye was in a constant rotatory motion, and seemed directed towards the object presented to his vision." (P. 167.)

We hasten to conclude this short notice, lest we should seem to many of our readers to occupy too much space in a practical Journal with the details of what they may consider the "fabric of a vision;" but we can assure them, that if they have confined their reading to the one-sided accounts given by adverse critics, they will be startled by the evidence accumulated in Mr. Colquhoun's book. In short, we agree entirely with Dr. Prichard, who says, "On the whole, when we consider the degree of suffering occasioned by disorders of the class over which magnetism exerts an influence through the medium of the imagination, and the little efficacy which ordinary remedies possess of alleviating or counteracting them, it is much to be wished that this art, notwithstanding the problematical nature of the theories connected with it, were better known to us in actual practice, and that some of the foreign operators would introduce it more extensively into this country." (*Cyclopædia of Pract. Med.*, art. *Somnambulism*.)

Observations on the Ulcerative Process, and its Treatment, particularly when affecting the Leg. By WM. ECCLES, Surgeon.—London, 1834. 8vo. pp. 66.

THIS essay is so exceedingly short, that it must be considered rather as a specimen of Mr. Eccles' style, than as a practical treatise on ulcers. We do not wish to discourage his attempts,—far from it; nor do we intend to pen a panegyric on prolixity; but there is a certain point below which a subject cannot be abridged, without forming notes for a book, rather than a real work. The following extract (which occupies five pages of the original,) will show, however, that

Mr. Eccles writes vigorously and pleasantly enough, as far as he goes.

“Surgeons, in general, are ignorant of the manner in which bandaging operates so beneficially. Nor do we find that authors throw much light on the matter. Even John Bell says no more than that it acts by supporting the veins; but he does not show how this support causes flesh to grow, nor even how it operates to relieve that distended condition of the vessels which is assumed to exist in the diseases under consideration.

“A modern author affirms, after stating that chronic inflammation ‘consists in a dilated and feeble state of the venous circulation, accompanied by increased arterial action, the result of which is that the blood-vessels are unable to propel their contents,’ that bandaging, acting as a mechanical support, ‘restores to the vessels the power of propelling the fluid along their canals.’

“Mr. Baynton tells us that, in the inflammation attending ulcers, ‘the parts are supplied with a larger quantity of blood than was furnished in a state of health; this, under the peculiar circumstances of the arteries, will occasion a greater deposition of lymph between the interstices of the muscles and in the cells of the cellular membrane than is necessary for their lubrication, or than the absorbents can carry away, which, gradually increasing, will remove the absorbents from their vicinity to the arteries, and consequently occasion a loss to them of the effect of arterial impulse which, while the vascular system of the limb continues in its perfect state, may be supposed to have considerable effect in propelling the returning lymph, as the lymphatic vessels are plentifully supplied with valves. Therefore, I conclude that the principal difficulty which occurred in the curing of ulcers has been occasioned by deficiency of power in the absorbent vessels.’

“If we throw aside all speculation which is based on such assumption as, that the arteries act more or less in inflammation, that the veins propel the blood, or merely convey it, that absorption is promoted by arterial action, the following appears to be the plain state of the case. The skin is more distended with blood than is natural, and bandaging tends to squeeze this fluid from its vessels, and consequently to diminish the cutaneous circulation. This explanation rests for proof on the evidence of our senses: the inflamed limb is distended, since by actual admeasurement we find it enlarged; it is distended by blood, because we find no other source for an accretion of matter except that fluid or the serum derived from it; it moreover demonstrates its presence to us by the redness of the skin, and by its unusual flow if this be cut. Lastly, that pressure drives the blood from the cutaneous vessels (be they named arteries, veins, or capillaries,) is evident, since, when we press our hands upon the skin, this becomes pale, and when we remove them it again reddens.

“We may say, positively, then, that a bandage presses the

blood out of the cutaneous vessels. It will be naturally asked, where does that fluid rush to? do you impede the circulation? The answer is, no; there is no impediment to the flow of blood through the limb generally, because the deep-seated arteries and veins carry that on with their usual facility; nor can there be any hindrance to the passage of blood from the larger cutaneous branches, because they have numerous anastomoses with those more deeply seated.

“In this way, then, an ulcer is relieved of the chronic inflammation: viz. by the diversion of the blood into another channel. It has been said, that this plan therefore should cure active inflammation; but this does not happen, because experiment shows that, while parts retain their natural vigour, the mechanical effect of pressure in diminishing the quantity of blood is counteracted by a tendency in the vital parts to act with greater force; so that we always find pressure excite inflammation in a healthy part, and increase that action in an organ already actively inflamed. Hence the absurdity of that indiscriminate use of bandages recommended at different periods by Whately, Baynton, and others.” (P. 19.)

An Examination into the Causes of the declining Reputation of the Medical Faculty of the University of Edinburgh; and the Origin of another Class of Medical Professors, commonly called “Private Lecturers,” &c.—Edinburgh, 1834. 8vo. pp. 59.

THE author of this pamphlet is very angry with matters as they are, and still more angry with matters as they are about to be. He is terribly afraid that the new curriculum devised by the Edinburgh people will have the effect of preventing men with slender purses from entering the medical profession, and then goes on to say,

“Who will patiently attend a sick person night and day, encountering boisterous weather, cold and fatigue, with the greatest devotion?—the rich man, or he who has nothing to depend upon but a good character and his own exertions? Who will condescend most readily to perform a thousand little acts of kindness and attention? Who will call on an invalid twice or thrice a day, and bear with numberless whimsical rebukes, and be wearied out with long stories of perhaps imaginary evils? Who will take most trouble in soothing the mind of the afflicted, or comforting the broken-hearted?—the wealthy man, or he who has nothing but his own exertions to depend upon?”

“If lords and ladies only were subject to pain and disease, it might be well to limit the profession to a few physicians, polished up to the highest pitch of refinement in all the arts and sciences. But when we look around us, and see the diseases and wants of multitudes in the various grades of society requiring the assistance of thousands of medical men, we may well ask, if such an extended

and therefore very expensive medical education be persevered in, who will attend the middle and lower classes, not to speak of the poor? The metropolis and large towns may be well supplied, but who will go to practise in the smaller towns or country districts?" (P. 25.)

A sad prospect indeed for the country towns, and for invalids who love to take a physician, like a saline draught, *ter in die!* However, let not the sick despair; for, though the doctors *in posse* may be unbearably fastidious, and shockingly over-educated, many of those *in esse* meet their patients on more equal terms; at least, if we may believe what follows.

"Every one connected with medical education in Edinburgh (except, perhaps, the professors themselves,) is aware that by far too large a proportion of candidates obtain degrees in physic, and that many persons have passed the ordeal who were notoriously inattentive to their studies, and dissipated in their habits, till perhaps within a few months of the day of examination: others, very industrious, but so stupid that they never could preserve a respectable status among their fellow-students, have likewise passed, to the no small surprise of their companions. So frequently have such circumstances occurred, that it is no uncommon matter to hear of Edinburgh graduates having made a bad appearance, nay having been rejected, not only at the College of Physicians in London, and College of Surgeons, but before the Worshipful Company of Apothecaries, at Apothecaries' Hall. The writer has known many who have received their degrees in Edinburgh, who were not to be trusted with the life of a cat, and who could not write a decent letter in the mother tongue, either in point of style or orthography, although they wrote, or rather got the credit of writing, a dissertation in Latin! Indeed, it is stated by persons connected with the Medical Corporations in London, that they possess letters from persons with Edinburgh diplomas that are quite disgraceful." (P. 41.)

For ourselves, we do not expect the medical world to be turned upside down by the curriculum in question. We are quite sure that there will always be doctors of all marketable prices and qualities; some, like the refined physicians whom our author dreads, who would interrupt a gouty alderman in his favourite story, or contradict a maiden aunt, as if unconscious of her India bonds; and others who will "bear with numberless whimsical rebukes" on the lowest terms, and cheerfully submit to "be wearied out with long stories of perhaps imaginary evils."

There is one point on which the author is clearly in the right. The town-council ought to have nothing to do with electing professors; they are obviously disqualified, both by ignorance and long habits of jobbing, to judge of professional

merit. The following table is strange, if true, as they say in America:

“Comparative Statement of the Number of Students attending some of the Elementary Classes in the Medical Schools in Edinburgh, during the last two Sessions; distinguishing the University from the Extra-Collegiate Lecturers.”

CLASSES.	University.		Extra-Collegiate Lecturers.		REMARKS.
	1832-3	1833-4	1832-3	1833-4	
Anatomy	186	167	460	470	<p>N.B. It is difficult to obtain an accurate list of all students attending extra-collegiate classes. The Album of the College of Surgeons cannot give so correct a view as that of the University, as perhaps one fourth part of the students, not intending to take their diplomas in Edinburgh, do not enrol themselves. But the number stated, the writer thinks, is under rather than above the mark.</p>
Chemistry	360	232	65	170	
Surgery	123	202	376	296	
Practice of Physic	136	128	210	147	
Practical Anatomy	108	109	450	440	
Practical Chemistry	111	8	100	200	
Midwifery	150	122	190	180	
Clinical Surgery ..	99	77	no class	75	

Medical Bibliography. A & B. By JAMES ATKINSON, Surgeon to H.R.H. the late Duke of York., Senior Surgeon to the York County Hospital, and the York Dispensary, &c.—London, 1834. 8vo. pp. 380 and viii.

THIS is the commencement of a list of medical writers and their works, with remarks and critiques. Some of these are sensible enough, while others are so strangely facetious, that they remind us rather of a village wag, who would rub a sleeper's face with burnt cork, or pull away the chair from an expectant sitter, than of a senior surgeon to a county hospital. Take a couple of examples.

“ALCMAEON, CROTONINENSIS. If this author was the disciple of Pythagoras, in the 35th age of the world, or about 497 years before Christ, as is reported, it well becomes me to beg pardon of his manes, for not having already introduced him.

“He is mentioned as being the first veterinary surgeon who wrote on the anatomy of animals, and was possibly a relation of the famous Milo, of Croton, who could bear a bull (I don't say bull and bear, ‘ne quid nimis!’) upon his shoulders. Milo might have been the apprentice of Alcmaeon; and now and then, pro re nata, in the way of his profession, have had occasion to carry a sick bull into the surgery to his master. Let us here observe, in a parenthesis, how surprisingly one trifling incident of history may clear up another, ‘and the sons of Alcmaeon shall never repine.’” (P. 39.)

“Questions simple as these always console me for my deficiency or direct stupidity in regard to mathematics, alias Mathew's mad

tricks; and (*faute de l'emportement*) such they do appear to me. I dare not even hint that the mathematician and the conjuror are synonymous, lest possibly, some one of the mathematical galaxy might affix one branch of his compass into my sinciput, (not sensepot,) and by concentric circles, or elliptic crossings with the other, scoop out the poor pittance of brain, which stingy nature obviously, has given to me. If such however were done, oh, what a figure I should cut; for I still venture to reckon on my having so many brains as to induce me to consider a man as nothing without brains. And I will further presume on the fact, (*miserable dictû!*) calling Oxford and Cambridge to witness, that he who had been the first in order of mathematics has sometimes dwindled to be the last in the scale of nature. *Quo te dementia!*" (P. 161.)

The following is much better, though certainly out of place:

"There is not perhaps any science wherein so many monstrous good jokes and superlative romances are exhibited as in the science of medicine. For instance: it is a monstrous good joke in any practitioner to suppose that his patients will always abide by him; and yet it is a common error. It is a monstrous good joke, to be observed, that men, of the first science and longest practice, cannot frequently gain the confidence of their patients; when a Merry Andrew doctor and his mountebank can take a town by storm in a moment; nay, can persuade the mob, mobility, and nobility, (as well as the gens de lettres,) that they have actually cured them of diseases which they never had. It is a monstrous good joke, apparently to affect, that arsenic shall poison one man, who was well; and as quickly cure another, who was ill. It is a monstrous good joke, to perceive, in a town, that a man who came to that town without any character, (because he had not any to bring,) shall, to a moral certainty, supplant, in a very short time, by hook or by crook, every other man there, who had one. But this monstrous good joke is practised, and with success, every day. It is a monstrous good joke, that a medical man, who is confessedly without brains, shall contrive completely to suck the brains of another, who has not brains to perceive it. It is a monstrous good joke, to observe, sometimes, that the best informed practitioner in a town shall seldom get a fee; whilst the greatest medical fool in the town shall seldom miss one." (P. 325.)

The editions of Aretæus are far more numerous than they are often supposed to be: we can afford room only for a part of the enumeration.

"EDITIONS IN 1700.

"*Pataviæ*, 8vo. 1700, Eloy; Haller deems it imperfect.
4to. 1719, with Boerhaave's Greek text,
Crassus's Latin version, and
by J. Groenvelch.

"Clarendon. Typ. *Oxon. fol.* } Gr. et Lat. *Ætiologica, Semeiotica,*
formá majori, 1723, } et *Therapeutica, sive, &c.* Wigan's
 edition.

"This most perfect and beautiful edition is in chartis maximis, and is produced from a survey of the most elaborate and impartial texts, codices, and translations. It has the advantage of Michael Mattaire's *Tract de Aretæi dialecto*, or the Ionic dialect used by him, with the *Lexicon*; it is the first specimen of any Greek medical author from the Clarendon press, (only 300 copies,) and is rated by authors 'splendidissima, accuratissima, plenissima,' or, as we Roman catholics superlatively express, 'a plenary indulgence.'

"Kestner, however, observes of this edition, and it is worth notice, 'optandum tamen foret, versionem hanc non rejectam esse sub calcem græci textûs, sed aut ad latus ejus positam, aut eidem subjectam saltem,' as being very useful to fellows, I don't imply of the universities, nor you, nor me, 'quique sine cortice natare norunt,' who can swim without bladders? Kestner delays giving an opinion of the comparative merits of the Oxford edition, because he had never obtained a sight of it; and, similarly, I was a long while before I could get a sight of his book. This Oxford edition was collated with the Harleian, and Vatican proofs, codices, or editions.

"For the editions, &c. of Aretæus, see Wigan, and pay particular attention to his preface.

"*London, 4to. 1726,* three first books with Petit's Comm. by Mattaire.

Pet. Vander Aa, *Lugd. Bat.* } De Causis et signis Acut. et Diut.
fol. major, 1731, } Morb. Lib. iv. Gr. et Lat. notis Var.
 —as Boerhaave, Scaliger, Triller,
 Pet. Petit, Wigan, Mattaire; cum
 Junii Pauli Crassi vers. Latin. è recognitione G. M. T., subjectá.

"Dr. Clarke observes that this edition is not so elegant, but more useful than the Oxford edition. The extremes of beauty and of use are seldom combined. It contains the whole of Petit's Comm. It is an excellent edition.

"Ianson Vander Aa, *Lugd.* } by Boerhaave, from Goupylius's
fol. 1735, } Greek edition of 1554, and the same
 as 1731.

"This is the most copious and complete Greek edition. But, as Boerhaave does not enumerate this edition of his own, it is merely a new titled edition, by rogues of booksellers. Rogues of booksellers—impossible!

"See *British Journal* of 1751, for observations on some singular diseases of Aretæus and Cælius Aurelianus." (P. 18.)

Our author informs us that he does not know German,

which he calls "most odontalgoid and difficult," and he consequently seldom mentions German books in his list; when he does, their titles are sadly mangled: thus, one of Blumenbach's works is entitled *Geschiete der Knocken*, instead of *Geschichte der Knochen*; and, instead of *Ueber den Bildungstrieb*, we have *Uber den bil dungstrict.* (P. 324.) At p. 161 we have Avenbrugger's treatise on Percussion thus mentioned: "Vienna, 8vo. 1781, *De percussione Thoracis—Inuentum novum ex.*" Without pretending to guess at the meaning of this, we will just observe, that the first edition of Avenbrugger's treatise is dated 1761, and that its title is "Leopoldi Auenbrugger, *Medicinæ Doctoris, in Cesareo Regio Nosocomeo nationum Hispanico medici ordinarii. Inuentum novum ex percussione thoracis humani ut signo abstrusus interni pectoris morbos detegendi. Vindobonæ. MDCCLXI.*"

In reviewing such a literary oddity as the volume before us, we may stand excused if we are infected by its example, and mention the dedication last: it is a very choice bit. "To all idle medical students in Great Britain, sit sacrum." We have been obliged (hard fate!) to content ourselves with the *word* *sacrum*: not so our author; his dedication is engraved, and he has the thing itself, so that it constitutes, probably for the first time, an exquisite rebus.

Observations on the Preservation of Sight, and on the Use, Abuse, and Choice of Spectacles, Reading-Glasses, &c. By JOHN HARRISON CURTIS, Esq. London, 1834. Small 8vo. pp. 48.

THE design of this treatise is good; not so the execution. First of all, there is far too little in the book; and then Mr. Curtis is continually falling into a most disagreeable error of Hygienic writers, who are fond of representing the most innocent things as dangerous and destructive; who would wish to make us eat, drink, and sleep in Sanctorius's chair, like the hypochondriac in the *Spectator*; or would advise us to lie down on the rug after dinner, like a desperate Abernethian. Thus, we are told, at p. 11, that "rubbing the eyes on waking is a destructive habit, which many people have contracted." A destructive habit! Pshaw! Our author wants to frighten his dark-eyed readers, and tells them that their eyes "are weaker, and more susceptible of injury from various causes, than grey or blue eyes." (P. 23.) We would recommend the dark-eyed to console themselves with the reflection, that in those countries where the solar light is most intense eyes are generally black. Mr. Curtis says, "The lighter the

pupil, the greater and longer-continued is the degree of tension the eye can sustain." (P. 23.) By *pupil* the author means the *iris*: but what does *tension* mean? Exertion?

When short-sighted people want glasses, Mr. Curtis says, "I would strenuously advise all such to be satisfied with glasses as slightly concave as possible: by which I mean, that they should employ no higher power than is necessary to enable them to see distinctly objects at from forty to fifty feet distance." (P. 43.) Objects of what size? Very great, or very little? Beer's *Augenkrankheiten*, or the *Observations on the Preservation of the Sight?* The truth is, that, to try the power of distant vision, objects of well-known size should be selected as the standard: for instance, a page printed in small pica may be placed before the doubting student; and, if he cannot read it with facility at six inches distance, he is short-sighted.

Before taking leave of Mr. Curtis, we cannot but suggest to him, that the referring us for testimonials of the value of his work on the Eye to the *Literary Gazette*, *Court Journal*, *Town*, *Beau Monde*, &c. has the air of a wicked jest, and should be omitted in his future advertisements.

The Anatomy and Surgery of Inguinal and Femoral Hernia. Illustrated by Plates drawn from Nature, and interspersed with Practical Remarks. By E. W. TUSON, F.L.S., Assistant Surgeon to the Middlesex Hospital, &c.—London, 1834. Folio, pp. 16, and three Plates.

WE do not know who was the inventor of dissected plates: the earliest specimen of these stratified engravings that has fallen into our hands was published at Amsterdam, in 1645. It is called *Pinax Microcosmographicus*, and the title-page sets forth that it had been written by Stephen Michael Spacher, of the Tyrol, for the benefit of physicians, surgeons, and apothecaries; and that it was then translated "into our mother-tongue," (the Dutch, to wit,) and artistically engraved (*artificiose sculptus*) by Cornelius Dancker. The plates are good, considering the period when they were executed, and are adorned with many quaint devices; the explanations are in Latin and Dutch.

But we must now speak of Mr. Tuson's book, whose claims to praise are of a far higher order. It is a very handsome work, and does great credit to the author, as well as to the artists whom he has employed. The upper part of the first plate contains the anatomy of inguinal hernia, and the lower part of the same plate the anatomy of femoral hernia. The second plate gives the dissection of an oblique inguinal

hernia, and in the third plate we find the dissection of a femoral hernia.

This work will be of especial service to practitioners in the country, who may not always be able to procure subjects, when they wish to revive their faded recollections of surgical anatomy.

A Series of Anatomical Plates in Lithography, with References and Physiological Comments, illustrating the Structure of the different Parts of the Human Body. Edited by JONES QUAIN, M.D., Professor of Anatomy and Physiology in the University of London. Fasciculi 5, 6, 8, 9, 10.

THESE are correct as well as spirited drawings, though we cannot help regretting that Dr. Quain should have thought it expedient to publish his work in such exceedingly minute fragments. We should advise anatomical students, however, to rectify this mistake of the learned professor by their method of purchasing his book, taking it in by divisions rather than by fasciculi.

Some Observations on the Utility of Fumigating and other Baths, &c. By JONATHAN GREEN, M.R.C.S.—London, 1834. 12mo. pp. 75.

THIS little work is obviously not intended for the profession, but for the public; a fact which would justify us in omitting to notice it. But the book, small though it be, may serve as a *flapper* to awaken the attention of some sleepy practitioners to the unrivalled advantages derived from warm and vapour baths in many diseases,—for example, chronic rheumatism, and a host of cutaneous affections.

We cannot help observing, that, among the disadvantages attendant on writing a medical book for the *profanum vulgus*, is to be numbered the supposed necessity of making it, like an expurgated Shakspeare or Gibbon, “fit to be read aloud in families.” Thus, Mr. Green, in his list of people cured of “syphilitic complaints,” tells us of one Mr. B., whose complaint was “primary ulcerations * * * occasioning destruction of parts.” Next to him follows another Mr. B., suffering from “ulceration in throat, palate, and nose, * * *.” All this is truly mysterious; but perhaps we may be allowed to conjecture that these stars are like the phosphorescent light playing about decayed fish, and that they indicate the dissolution of the nose to which they belong.

However, leaving the book to the persons for whom it is intended, the system is an excellent one, and we heartily wish Mr. Green and his baths every possible success.

On Dentition, and some coincident Disorders. By J. ASHBURNER, M.D.—London, 1834. 12mo. pp. 235.

THIS is a reprint, with additions, of some papers published in the *Medical Gazette*; and we must confess that they looked better in the close columns of our excellent contemporary than in their present form; for, though we are not among those who think that doctors or their books should come out in black, still we disapprove of a grave medical treatise looking, in externals at least, like a volume of fairy tales. However, let that pass.

Dr. Ashburner supposes that constitutional diseases very frequently arise from irregularities in the second set of teeth: the wise teeth cannot cut their way into the world, or the incisors overlap each other, and hysteria, epilepsy, &c. are the consequences. This is Dr. Ashburner's hobby, and he rides it to death. In the last case in the book (p. 232,) a young lady, disappointed in love, became first of all hysterical, and afterwards epileptic. Here the wise teeth, the incisors, and the bicuspidæ, were all in fault. Our author, however, in this case, did not attempt to set the teeth to rights, but very judiciously advised marriage: the prescription was taken, and the patient recovered completely.

We should have called the general run of Dr. Ashburner's cases extremely rare ones, but he meets with them by shoals. We gave several in the *COLLECTANEA* of our last number, and shall therefore content ourselves with quoting one of the most remarkable.

“An eminent physician, who had practised in a large provincial city, was passing through London. I met him in Regent street, and the suddenness of my approach threw him into a state of obliviousness. He did not venture out without a companion, and the lady who was walking with him hinted that I had better call on him the next day. When I saw him again, he gave me a very clear account of the mode in which he was attacked. The fits of oblivion occurring sometimes twice in the course of the day, and being uncertain as to the periods of their accession, he was not able to trust himself out of his house without either a servant or a companion. He was at this time fifty-eight years of age, and had six years before been obliged to relinquish a lucrative practice, from occasionally not being able to recollect even the faces of his patients when they appeared before him. He went away to travel on the continent, and journeying from place to place in Italy, where the classic ground ought to have raised emotions of great delight in a healthy mind, so well educated as this gentleman's, he had constantly to regret that a fit of oblivion attacked him when he was engaged in viewing scenes which were of deep interest to his fellow-

travellers. I remarked a curious arrangement of the inferior incisors when his mouth opened: there were only three in a space which ought to be occupied by four teeth. I learned that one had been removed nearly eight years before. But if one had been extracted the room was now filled up, so that a pressure from the back part of the jaw had obliterated the vacant space, and caused a complete approximation of the edges of the two incisors left apart from each other. On looking into the mouth, it was found that the last molares, above and below, had never been cut, that in the upper jaw the vis-a-tergo maxillæ had played sad havoc among the teeth: a few stumps were left, the immediate removal of which I advised. I cut away for him myself some cartilaginous obstructions to the progress of his wise teeth, which appeared, from long pressure, to have suffered in their integrity quite as much as the other teeth. He remained in London about a fortnight after, and told me that he was so much relieved of his oblivion fits as to be able to walk to my house without any want of confidence in himself: he required no companion." (P. 230.)

An Introduction to the Study of Human Anatomy. By JAMES PAXTON, M.R.C.S. &c. In Two Volumes. Vol. II.—London, 1834. 8vo. pp. 370.

THIS elementary system of anatomy will be useful to beginners, but is chiefly intended, we believe, for non-professional persons. The woodcuts, which are very numerous, will recall to the former class what they have already seen, and to the latter will often be a substitute for what they may never see. It would be absurd to give many extracts from a work of this kind, and we shall therefore content ourselves with a single one relating to a subject which, though treated of by several great writers, is not yet so familiar to every one as it ought to be; we mean *muscular sensation*.

"To the sensitive department of the fifth pair, and the compound spinal nerves, is assigned muscular sensation. This is the sixth sense. All our conceptions of weight and resistance, and motion in general, are derived from our muscles. The muscular system then may be considered a distinct organ of sense as well as motion; each motion of the invisible muscles is accompanied with a certain feeling, which may indeed be complex, as arising from various muscles, but which is considered by the mind as one, and it is this peculiar feeling, attending the action of the muscular fibres, which we distinguish from every other sensation. To exemplify this, I might refer to the state of the muscles in cramp of the limbs, and in rheumatic affections; in such morbid conditions their structure becomes painfully sensible. But let us call to mind the phenomenon which every one must have experienced, I mean the feeling of fatigue; this is a muscular sensation: a sensation of which the

muscles are the organs, as much so as that of the eye and the ear are the organs of sight and hearing. Every bodily effort depends on muscular contraction; and long and frequent contractions, that is, continued exercise, occasion a peculiar uneasiness which demand repose. Powerful and protracted exertions produce painful sensations to the muscular sense: a more moderate degree of exercise is attended with agreeable sensations. With a healthy state of body, there is a muscular pleasure in exertion. Thus, the child who is not playful, is not healthy. There is a muscular gratification, if I may so express myself, in every limb, in the games and pastimes of the schoolboy.

“Dr. Brown, without being aware that there was a peculiar set of nerves appropriated to muscular sensation, observes, that ‘nature in the other animals, whose sources of general pleasure are more limited, has converted their muscular system into an organ of delight. It is not in search of richer pasture that the horse gallops over the field, or the goat leaps from rock to rock; it is for the luxury of the exercise itself. It is this appearance of active life which spreads a charm over every little group with which the Deity animates the scenery of nature.’ We may therefore consider that the muscular system is not merely the living machinery of motion, but that it is also truly an organ of sense.” (P. 177.)

The Journal of Botany, being a Second Series of the Botanical Miscellany. Part I. (To be continued Quarterly.) By WM. JACKSON HOOKER, Regius Professor of Botany in the University of Glasgow.—London, 1834. 8vo. pp. 96, and eight Plates.

DR. HOOKER'S name has become so identified with botanical excellence, that it is almost a sufficient recommendation of this elegant periodical to quote its title-page. The first article is an able account of the genus *Floerkea* of Willdenow, by Professor Lindley. He thinks that this genus must be placed among the *Sanguisorbeæ*, or in their neighbourhood. There is an interesting “notice concerning Mr. Drummond's collections, made in the southern and western parts of the United States.” Mr. Drummond, it appears, is still in America, and we have little doubt that the researches of this enthusiastic botanist will be rewarded by a rich harvest of discoveries.

Two of the plates are especially beautiful: they are coloured representations of two new ferns, the *Gymnogramma elongata*, and *G. flabellata*.

An Essay on the Physiology of the Iris. By JOHN WALKER, Assistant Surgeon to the Manchester Eye Institution, &c.—Manchester, 1833.—8vo. pp. 16.

THIS pamphlet does credit to the talents and physiological acumen of its ingenious author. It will be sufficient to quote the last few sentences, as they contain a summary of the whole.

“ Upon a review of the whole of the facts and arguments adduced, it appears to result, first, that the motions of the iris depend, not upon impressions made on the retina, but upon its own sensibility to light, as also upon its association with the muscles of the eyelids, through the medium of the lenticular ganglion: second, that these motions are for the purpose of adapting the eye to the perception of objects at different distances: third, that the iris acts also in some measure as a defence to the more internal parts of the eye, as the palpebræ do to the external, forming, in fact, an internal eyelid: fourth, that the external parts of the eye generally, as well as the iris, are sensible to the stimulus of light;* and lastly, that the retina is insensible to the ordinary impressions of light, as a stimulant; but that its functions may be impaired or destroyed by the more powerful concentration of light, as from the sun’s rays, the *coup de soleil*, or from lightning, in the same manner as the brain and other parts of the nervous system are injured or paralyzed from the like causes.” (P. 16.)

The Parents’ Dental Guide, &c. By WM. IMRIE, Surgeon-Dentist.—London, 1834. 8vo. pp. 118.

MR. IMRIE hints pretty broadly that medical men know very little about the teeth, and he is not far wrong; but whose fault is this?—The dentists’: for they lock up what they know in their own bosoms, and talk as mysteriously as a patentee, or an Egyptian priest. In the present work, however, Mr. Imrie makes no attempt to clear up the doubts of us, his erring brethren, (or rather cousins, perhaps,) but confines himself to the instruction of unprofessional parents. He conducts his pupils very tolerably to the vestibule: we hope that at some future time he will lead us into the temple.

* “ During the last few days I have witnessed a case of affection of the nerves of the face, which illustrates this question of the sensibility to light in a very satisfactory manner. The mouth and tongue were drawn to the left side; there was diminished sensibility of the right side of the face and mouth, with loss of taste; the eyelids of the right side could not be closed, and did not wink in concert with the opposite: vision was perfect, but, on placing this eye close to a strong gas-light, no uneasiness was felt, and no attempt at winking followed. The sound eye could not bear the same light an instant. This case was also seen by my friend, Dr. Kay, who observed all these phenomena.”

An Introduction to the Study and Practice of Medicine. By JOHN DOWSON, M.D. London, 1834. 12mo. pp. 96.

THIS is a very harmless little book, probably intended for distribution among the author's circle of friends: should he reprint it, we would recommend him to enlarge it considerably, as ninety-six very tiny pages on such a subject leave no room for doing justice even to the most important points. The following passage, which our author quotes from Parkinson, is a curious example of a commonplace truth so distorted by exaggeration that the fact can scarcely be recognised amid the embellishments.

“ You must have observed how late it is before a physician gets into full practice; and that few of them begin to derive any advantage from their profession until they have arrived at that time of life at which men engaged in business, or mercantile concerns, have generally acquired a handsome fortune. Indeed it almost seems that many think a physician too young for consultation, unless he has reached his dotage: I have myself known a physician, above fifty years of age, objected to for his youth.” (P. 64.)

These objectors to a younker of fifty must be very hard to please: they would allow, perhaps, that a physician who had numbered threescore years and ten might be trusted with slight cases, but they would hardly give their full confidence to any but a Heberden in his ninetieth year, or a Glisson in his hundredth. We suspect, however, that the unfortunate quinquagenarian in the text must have been afflicted with a sleek and chubby face; though it is strange that the atrophy of the purse, the entire and absolute unconsciousness of a fee, which Mr. Parkinson affixes on our younger brethren, should not have planted a few wrinkles on the halest cheek. But some men are born stoics.

ORIGINAL COMMUNICATIONS.

On the Classification, Administration, Modus Operandi, and Combination of Medicines. By J. STEVENSON BUSHNAN, F.L.S., Surgeon to the Dumfries Dispensary, &c.

1. *Classification of Medicines in general.*

THE medicines commonly employed in the treatment of diseases are derived from all the three kingdoms of nature, and may be conveniently classed according to the particular effects which they in general produce; while these classes may be further arranged in the order of the organs on which they appear severally in general to act. The chief classes of medicines commonly enumerated are the Errhines, acting principally upon the nostrils; the Sialogogues, upon the salivary glands; the Demulcents and Expectorants, upon the lungs; the Emetics, upon the stomach; the Purgatives and Carminatives, upon the intestines; the Diuretics, upon the kidneys; the Emmenagogues, upon the uterus; the Diaphoretics and Epispastics, upon the skin; the Astringents, upon any of the foregoing organs: and the Stimulants, Tonics, Antispasmodics, Sedatives, and Narcotics, upon the spinal marrow and brain. The Antacids and Anthelmintics, which act, the former in neutralizing acid matters in the stomach, and the latter in destroying intestinal worms, cannot, with propriety, be referred to any particular organ.

The above classification of medicines, although convenient for practical purposes, and to a certain degree precise, is at the same time quite artificial, and most indefinite and arbitrary. To say nothing of the long and violently agitated question respecting the primarily stimulant or sedative operation of certain medicines, and which, according to the different views which any two persons might choose to take of it, would appear to justify them in placing the same medicine under two diametrically opposite classes, there are numerous substances, such as ipecacuanha, assafoetida, digitalis, opium, antimony, and mercury, which, without any sophistry, may with equal propriety be referred to almost any class. Thus, ipecacuanha, according to the quantity in which it is given and other circumstances, is either an expectorant, an emetic, a purgative, a diuretic, a diaphoretic, a tonic, or an antispasmodic; and opium (though it belongs neither to

the class of purgatives nor astringents,) may be given to fulfil, not only very different but directly opposite indications, as that of opening the bowels in colic, and of binding them in cholera. Alum also, (a generally admitted astringent,) when given in large doses, frequently purges; and something similar may be said of almost every individual medicine; but it will sufficiently appear from these examples how abortive must be every attempt to make any thing like a precise classification of medicines on such principles, and how essential it is therefore to study the action of each in detail, without being much influenced by the place which it occupies in generalizations which nature refuses to acknowledge.

But, imperfect as these principles confessedly are, they are perhaps the best which the nature of the subject will admit, and certainly much better than those formerly adopted.

By the ancient physicians, the several articles of the *materia medica* were spoken of, in conformity to the system of pathology then in vogue, principally according to their supposed virtues of determining the fluids to and from certain parts, of promoting the desired concoctions of morbid matters, of drawing abscesses to an head, or evacuating their contents, of stopping hæmorrhages, uniting wounds, cleansing and healing ulcers, and so forth; and, even after the revival of letters, the same views prevailed among the early writers on the *materia medica*. At that time the majority of diseases was attributed to an "*ἀκρασία*," consisting in an inordinate flow to certain organs of the one or other of the four principal fluids of the body, the object of which was supposed to be to promote the concoction and subsequent expulsion of certain crude morbid matters, imagined to be collected in these organs, against which, as against an invading power, these fluids were detached by the conservative principle of the body. Hence arose the well-known axiom "*ubi irritatio, ibi fluxus*;" and it was only, or chiefly, for the purpose of co-operating with these supposed salutary operations of nature, that medicines in general were formerly administered.

These views alone prevail in the writings of Bauhin, Columna, Fallopius, and the other early writers on the *materia medica* in modern times; nor was the system of things much improved by the addition of the antalkaline and antacid remedies of the chemists, or the inspissants and attenuants of subsequent pathologists. It was only gradually that medicines came to be arranged upon the principles now commonly adopted; the writings of Boerhaave, Gaubius, and De Gorter, and even those of Cullen, Vogel, Murray, Young, and others, being still considerably adulterated with the notions

so long before prevalent on the subject; but it is still chiefly to these authors that we owe the establishment of the principles which, imperfect as they are, are perhaps, as I have already said, the best of which the subject is susceptible. How utterly idle, however, must be every attempt at a perfectly precise arrangement of medicines "after their kinds," upon the basis of their supposed effects upon the body, is sufficiently obvious, not only from the nature of the subject itself, but from the discordant, unnatural, and unintelligible systems which many of the labourers in this visionary vineyard have left behind them. "Des moyens identiques," says Bichât, "ont eu souvent des noms différens, suivant la manière dont on croyoit qu'ils agissoient. Deobstruent pour l'un, relâchant pour l'autre, rafraîchissant pour un autre, le même médicament a été tour à tour employé dans des vues toutes différentes, et même opposées."

2. *Administration of Medicines in general.*

Medicines, whether solid, liquid, or aëriform, may be administered by numerous different avenues. They may be either snuffed up by the nostrils, or applied to the eyes in the manner of collyria, or to the mouth by chewing, gargling, fumigating, rubbing into the gums, &c., or inhaled by the lungs, or even injected into them by an opening made into the trachea; or they may be swallowed, or injected into the rectum as a clyster, or inserted into it as a suppository, or injected into the urethra or vagina; or they may be applied to the skin in the form of fomentations, poultices, lotions, baths, &c., or introduced through the skin by friction, or by continual contact; or, lastly, they may be applied to a blistered surface, or inserted into a wound, or injected into a vein.

The most ancient way of administering medicines is probably by the skin, to which they were applied in combination with oils, the external use of which was in the primeval ages so universal. The custom, also, so common among the ancient Egyptians, and their successors, of burning resinous and aromatic substances, as well in their religious ceremonies as for the purpose of purifying the air, would soon give rise to the use of fumigations by the mouth, and inhalations by the lungs. We find that, so early as the time of Homer, the vapours of sulphurous acid were in common request for purifying the air after sickness and death; and, during the celebrated plague of Athens, (430 years before Christ,) we are told that strong perfumes and immense fires were used as a chief prophylactic remedy; and it is to these practices that we must ascribe the early use, both by Egyptians and

Greeks, of the vapours of bitumens, pitch, sealing-wax, sulphur, and similar substances, in diseases not only of the fauces, but of the lungs; a practice revived in 1664 by Bennet, and continued by Willis, Mead, and many others, down to our own times. Similar fumigations were formerly often employed by the vagina as emmenagogues. The administration of medicines by the mouth is said to have been suggested to the ancient Egyptians by dogs and apes; the former having been observed to take grass as a vomit, and the latter the pulp of cassia as a purge, as often as their constitutions required these reliefs; and the first use of clysters among them is reported by Herodotus to have been merely an improvement upon the practice of the ibis, which is in the habit, when in the water, of clystering itself with its long beak. The use of masticatories, or local sialogogues, has from time immemorial been prevalent in all warm climates as a luxury—sometimes the betel leaf or areca nut, at others quicklime, being employed in this way—and such substances, therefore, would of course be sometimes used medicinally; and, although we do not hear of the habitual use of any kind of snuff before the introduction of tobacco, (and indeed the old prejudices against blowing the nose were incompatible with such a practice,) we know that errhines, and some antispasmodics, administered by the nostrils, were favourite remedies with Hippocrates. In like manner, gargles, suppositories, injections by the vagina, and medicinal pessaries, (a method of administering medicines at present almost entirely discontinued,) as well as baths of medicated waters and oils, and general fumigations of the body with the vapours of sulphur and various other substances, as recently recommended by Dominiceti, Gall, and others, were in common use among the ancients, together with certain other practices, such as that of pouring medicines into the ears, which is mentioned by Aretæus and Cælius; “quo per sensuales vias ad membranas cerebri recorporativa virtus adveniat,” and the memory of which Shakspeare has immortalized:

— “Sleeping within mine orchard,
My custom always in the afternoon,
Upon my secure hour thy uncle stole,
With juice of cursed hebenon in a vial,
And in the porches of mine ears did pour
The leperous distilment.”—*Hamlet*, act i. scene 5.

Perhaps, therefore, the chief, or only new methods of administering medicines, are by friction upon the skin, injection into a vein, friction upon the gums, injection into the lungs by the trachea, insertion into a wound, and application to a blistered surface. Of these, the practice of introducing

medicines by friction upon the skin seems to have originated with James Berenger de Carpi, who about the year 1520, for the first time, administered mercury in this way in the cure of lues venerea; and the same means of administering scammony, jalap, squill, rhubarb, opium, and other medicines, has been since employed by Spallanzani, Chiæranti, Vacca, Berlinghieri, Brera, Alibert, Pinel, Dumeril, and others. The origin of injecting medicines into the veins seems to have been nearly coeval with that of the transfusion of the blood of one animal into the veins of another, which was recommended by Libavius, of Halle, in 1615, and practised, probably, for the first time by Lower, in 1665; although many others have put in their claims as the institutors of an art from which so much was at first expected. Lower, however, practised on brutes only; the first to perform transfusion on man having been Denys and Emerey in France, and Riva and Manfredi in Italy; but the results having been in most cases discouraging, the practice was forbidden, as well by the parliament of Paris, as by the Pope, and though since brought again into notice in Switzerland by Dumas and Prevost, and in this country by Leacock, Blundell, Waller, and others, it has not yet quite recovered its reputation. The first to inject medicines into the veins is said to have been "mathematicus ille insignissimus," D. D. Christopher Wren, about the year 1656; the subject was farther prosecuted by Boyle, Oldenburgh, Fracassati, Frabricius, and Dr. Timothy Clark, between this period and 1678, the last of whom tells us that he had administered with success "emetica, cathartica, diuretica, et opiata isto modo:" and it was proved, lastly, by John Hunter, that the effects of ipecacuanha, jalap, opium, &c., so administered, were more certain and speedy than when received into the stomach. The method of administering medicines by friction upon the gums was employed perhaps for the first time in 1811, by Dr. Chrestien, with his preparations of gold, &c., and subsequently by Mr. Clare, with calomel; and that of injecting them into the lungs by the trachea, proposed for the first time by Goodwyn, has been recommended lately by Mayer, Autenrieth, and Schlaeffer; and the great celerity with which absorption takes place from this organ is certainly in favour of the practice. Lastly, the method of inserting medicines into a wound was followed with the corrosive sublimate in the cure of lues venerea by Mr. Clure, in 1819; and that of applying them to a blistered surface seems to have been proposed first by Lesieur, of Paris, within these last few years, and has been followed with success by Dr. Martin, and many others.

3. Operation of Medicines in general.

Various as are the avenues by which medicines may be received into the body, it is very remarkable that, in whatever way a medicine is so introduced, its operation is still for the most part—like that of a poison, or any other exciting cause of disease—upon one and the same organ. Thus, mercury is an equally certain sialogogue, in all the various ways it is administered; the demulcents, expectorants, diuretics, and most other classes of medicines, act equally specifically on the mucous membranes, kidneys, &c., whether they be received into the stomach or introduced through any other channel; tobacco and white hellebore act as emetics, when either applied to the skin or introduced by the anus; black hellebore, colocynth, gamboge, antimony, &c., act as purgatives, when either snuffed up by the nostrils, or applied to the eyes in the manner of collyria, or handled for a considerable time, or inserted into an issue, or mixed with blistering plaster; and cantharides acts as an astringent when either swallowed or applied to the skin: and that the specific effects of almost any medicine may be produced by injecting it into a vein is at present very generally known. It follows from these facts, that, in explaining the mode of action of medicines in general, we ought to dwell, not so much on the means by which they reach the organ on which they act, as on the specific nature of the stimulus which they convey, and which, whatever be the channel by which it be conducted, produces nearly the same effects. It has been known from the most ancient times, and the works of modern physiologists have inculcated the fact with a considerable degree of precision, that, though the whole body is endowed with a general irritability, or susceptibility of impressions from foreign agents, each individual organ of the body has a peculiar kind of irritability of its own, adapting it to be acted upon by certain stimuli more remarkably than by others. If this were not true, it is obvious that the same stimulus should produce in every organ of the body the same effect; which is so far from being the case, that there are hardly any two organs of the body which precisely agree in this particular. Thus, arterial blood is the natural stimulus to the left, and venous to the right cavity of the heart; the alimentary matters and their products are the natural stimuli to the stomach and intestines; and the several secreted fluids are the natural stimuli to the respective ducts and receptacles by which they are passed, or in which they are allowed to accumulate; and, moreover, the deleterious effects of any one of these substances in any organ but that

specifically adapted for its passage or reception, are a conclusive proof of the different kind of irritability which each enjoys.

The doctrine of specific kinds of irritability, I have said, is not new, although it is only lately that this doctrine has been applied with any precision to the explanation of the action, as well as the exciting cause of disease, as of the remedies employed in removing them.

The several genii which the most ancient philosophers supposed immediately to preside over the function of each organ of the body, and the peculiar *δυναμις* which Hippocrates and Galen conceived to be resident in each, distinct from and subservient to the *φύσις, ενόρμον, πνευμα, &c.* (by which terms they signified the universally presiding spirit of the body,) were manifestly the same thing expressed in a more vague manner; and the admission by the earliest physiologists of a pulsating power in the heart, a concocting power in the stomach, and so forth, was neither more nor less than an acknowledgment of the specific kind of irritability with which each of those organs was endowed. The same thing was understood by Van Helmont under the name of *Archæii insiti*, the number of which almost equalled the organs of the body, though all were held in subordination by one sovereign *Archæus*, corresponding to the *πνευμα, &c.*, already mentioned, and supposed to hold his court in the stomach. Harvey also admits in each organ a *sensus proprius*, subject to the general *anima* by which the whole body was actuated; and Glisson speaks of each organ as possessed of, in addition to its general irritability, a "*spiritus regens, qui aliud in jecore, aliud in liene, aliud in pancreate, aliud in ventriculo et intestinis operatur.*"

The subject of these *imperia in imperio* was further prosecuted by Bordeu, the commonly reputed father of modern French physiology, who distinctly propagated the doctrine that it was owing to such a cause, "*que chaque organe sent et se meut à sa manière;*" and who certainly suggested to Bichât all that the latter subsequently did in assigning to each organ a specific irritability, by which its peculiar function, or *vita propria*, forming a part of one or other of the two heads of functions, improperly called lives, carried on by the body in general, was effected. In this respect, then, modern authors, as remarked by Dr. Barclay, "instead of advancing anything new, as they probably supposed, have only revived one of the most rude and antiquated notions in all physiology." Now, it can hardly be questioned that it is owing to this peculiar susceptibility in certain organs of certain impressions,

that particular exciting causes of disease, such as specific contagions, poisons, and so forth, in whatever manner they be applied to the body, produce always particular effects; and precisely the same explanation, as it appears to me, must be given of the equally specific action of all medicines, in whatever manner they be administered. Not only every class of medicines, but every individual medicine, may be with great reason presumed, like every other agent on the body, whether salutary or deleterious, to afford a stimulus more or less distinct from that afforded by any other. When applied to the body therefore, in any way, each will be comparatively inert with respect to all those organs to the peculiar irritability of which this specific stimulus is not adapted, and will act only, or chiefly, on those which are thus calculated to receive it; and this equally, whether the medicine in question operate directly on the organ, or being applied to some other one, produce there such an irritation as, conveyed by certain means to the organs on which it is more properly to act, bring about its specific effects; in other words, operate by sympathy. It would involve me in a long and very intricate question to investigate the means by which these sympathetic irritations are effected. The existence of such a power resident in the body is unquestionable, whether we can explain its nature or not; and the innumerable instances of increased secretions and other inordinate actions, very analogous to the effects of certain medicines, produced by mere sympathy, without any suspicion of an altered condition of the blood or any other change, seem to justify us in supposing when medicines are applied otherwise than directly to the organs upon which they are to act, though they may sometimes be taken up by the blood, and thus operate in the same way as when injected into a vein, yet that they may, and usually do, produce their effects in the former way alone.

The notions of the ancients with respect to the mode of action of medicines are unworthy of being remembered, except as examples of the absurdities into which men are liable to be betrayed by a close adherence to favourite systems. It had been established that of four elements, each distinguished by a certain essential property, as dryness, moisture, coldness, and heat, everything in nature was composed; that of certain definite combinations of these elements were formed the four principal fluids of the body; and that an *ακρασία*, or preternatural local accumulation of one or other of these constituted disease in general. Now, in repairing this loss of balance in any part of the fluids, attended of course by their essential properties, it followed that substances must act either by

abstracting such properties as were superabundant, or by supplying such as were deficient; and hence arose the hypothesis that every medicinal substance which was a remedy for dryness was moist, for moisture dry, and so forth; and it might be either the one or the other, and at the same time either cold or hot, and every one of all these in either the first, second, third or fourth degree. Moreover, it was the leading or cardinal property of the medicine which determined its sensible operation; emetics, for instance, going upwards because they were hot, seeing that it was the nature of heat to ascend, and purgatives downwards because they were cold, each attracting forth with it such humours as were most allied to itself.

These doctrines, after the revival of literature, gave way to views respecting the action of medicines, in general either strictly chemical, or exclusively mechanical, the living body being spoken of as an inert mass, and medicines being described as operating, each in its own way, either according to its particular affinities, or, as they were then called, sympathies or antipathies, on the one hand, or, according to its bulk, or the size and form of its particles, on the other; and it was not till after Hoffman had shewn that the causes of diseases operated always on the nervous system alone, that the action of medicines also began to be referred to the same system. Still, however, much of the old chemical and mechanical leaven continued to prevail in the common hypotheses on this subject; and this equally, whether a medicine were brought into immediate contact with the organs affected, or reached them by means of the blood, which for a long time seemed to be the only two conceivable methods by which it could affect them. Thus a common explanation of the salivation produced by mercury was, that the medicine, taken up by the blood, passed directly upwards, owing to its great weight, which disposed it to preserve a straight line as transmitted by the heart; or that it did so by its admixture with the blood, which was thus so far attenuated as to be strained through the pores of the salivary glands like so many sieves, which was the explanation of Van Swieten; or that it operated by combining with the supposed ammoniacal salts of the blood, and thus attenuating it, as supposed by Cullen: or lastly, that it passed off by the salivary glands, because the secretion of the kidneys, containing phosphoric acid, which forms with mercury an insoluble compound, refused to transmit it, which was the hypothesis of Murray. The action of mercury also in curing lues venerea was generally represented as that of neutralizing the supposed poison in the blood. In like manner, a common

explanation of the effects of astringents was, that they increased the cohesion of the fibres of the parts to which they were applied by a species of tanning; of that of refrigerants, that they produced cold in proportion to the rapidity with which they were dissolved, owing to their increased capacity for caloric; of that of iron as a deobstruent, that, being seven times heavier than vegetables, it was seven times better adapted to force its way through any obstructions; and of that of antispasmodics, that, operating upon the heart as a simple stimulus, they produced so increased a flow of blood through the whole body, that the local congestions, upon which spasm was supposed to depend, were thereby, as it were, washed away! When a medicine was neither directly applied to the organ upon which it acted, nor could be conveniently supposed to be taken up by the blood, it was either stoutly denied that it possessed the power attributed to it, or was conceived to operate by contiguity; and it was upon the principle of the contiguity of the heart and stomach that the effects of antispasmodics just mentioned, of that of the lungs and stomach, that those of expectorants, and of that of the uterus and rectum, that those of emmenagogues, were generally explained. At other times, however, still greater ingenuity was called forth; as in ascribing the effects of local sialogogues to the compression of the salivary glands during their mastication, and those of demulcents to their smearing the surface of the larynx during their passage into the stomach, so that, the frequency of the cough being thus diminished, more time was allowed for the inspissation of the secreted mucilage; and it is only very lately that the effects of those purgatives which operate chiefly on the small intestines have been attributed to their more rapid solution, and those of such as operate chiefly on the large intestines, to their more tardy solution in these organs.

But how extremely vague and inconsistent most of these notions are, and how irreconcilable some of them are to the fact, that certain medicines operate, for the most part, on a certain organ, and in a certain manner, by whatever avenue and in whatever form they are introduced, must be abundantly obvious. The luminous doctrines of recent pathologists respecting the nature of those changes which constitute disease, aided by those of Bordeu with respect to specific irritabilities, and by the general observation of the immense extent of sympathies, by which certain irritations of almost any one part may be conveyed to almost any other, have introduced in general much juster views of the action of medicines in curing diseases; and, though the experiments of

Magendie, Brodie, Orfila, Christison, and others, have rendered it probable that many, if not all medicines, as well as poisons, *may* be taken up by the blood, and thus indirectly produce their effects, such a circuitous mode of action seems to be in general by no means more essential to the action of any medicine than to that of any exciting cause of disease. As a matter of curiosity it may be observed, that Dr. Paris enumerates, in capital letters, four "distinct and different modes" in which he imagines medicines may act: first, by "actual contact," including the conveyance of the matter by either the veins or lymphiferous and chyloferous vessels, and whether received by absorption or by a wound, both which however he calls absorption; secondly, by "an impulse conveyed by the instrumentality of the nerves; thirdly, by "the sympathetic control exerted by the stomach on distant parts;" and, fourthly, by "the operation of contiguous sympathy." But, to say nothing of all these modes being unquestionably resolvable into the action of medicines upon the nervous system alone, if in the two last modes they do not produce "impulses," and these be not conveyed "by the instrumentality of the nerves," it would be gratifying to know what they *do* produce, and how their action *is* conveyed; and if they be in both respects similar, it would be satisfactory to know what was the use of enumerating them as modes "distinct and different" from the second and from one another. But this arrangement of the common modes of action of medicines in general, is nothing to what Dr. Paris has attempted to establish with respect to that of each particular description of those medicines, the sensible effects of which are the same, arranging the individuals upon this airy basis into classes, orders, genera, and species, with as much precision as if we really knew anything at all about the matter, and as if all such speculations were not, as he himself calls some of the theories of his predecessors, "philosophical webs which ingenuity has woven for us, the device of which is beautiful, but the fabric too frail to endure the touch."

It must be sufficiently obvious to every reflecting man that the present state of science does not justify us in affecting to arrange medicines, any more than exciting causes of disease, according to their modes of action; and it will be well if the judicious remarks of M. Cap and others, recently made on this subject, put a stop, perhaps for many years to come, to all attempts of the kind.

A. Operation of Evacuant Medicines.

The effect of all medicines by which discharges are promoted, such as errhines and sialogogues, seems to be that of stimulating preternaturally, in the first instance, the capillary arteries of the organs whence the evacuation is to proceed; and this inordinate irritation being succeeded, sooner or later, by a corresponding collapse of these arteries, a state analogous to inflammation, and a consequent increased or altered secretion, are the results. It is sufficiently well known, however, that the quantities of medicines required for producing evacuations are considerably greater in cases where the agency of the brain is either suppressed or perturbed, as in sanguineous apoplexy, catalepsy, insanity, and tetanus; the constant stimulus derived from this organ being apparently always conducive, and sometimes almost essential to their operation; and it has accordingly been observed, by Mayo and others, that the action of such medicines may in general be suspended in the lower animals by compressing the brain. It was formerly a much-agitated question, as I have before remarked, whether the action of these medicines, as well as medicines in general, were primarily stimulant or primarily sedative; but this question has for some time past less occupied the attention of therapeuticians. It can hardly be disputed that every positive agent upon the body, and consequently every medicine, is primarily a stimulant, although the more permanent operation of some, and perhaps their only sensible operation, may be that of a sedative. This was the doctrine first of Tralles with respect to the narcotics, and afterwards of the celebrated Dr. Brown with respect to all medicines; but from this doctrine the modern Brunonians, as Rasori of Milan, Tommasini of Bologna, and Borda of Pavia, recede, contending that some medicines (which they call, not sedatives, but contra-stimulants,) act directly in repressing action; and the same opinion is maintained in Germany, by Horn and others, with respect to their negative stimulants. It is probable, nevertheless, that Brown was right; but the subject is not worth half the trouble that has been bestowed upon it, since it is the permanent, not the temporary or primary effect of a medicine that we have any real interest in understanding. I have said that the collapse of the capillary arteries of those organs from which an increased discharge is to be produced constitutes a state analogous to inflammation; and it is well known that the secretions of every part are, *cæteris paribus*, in the direct ratio of the quantity of blood which the capil-

lary arteries of this part contain. Hence has arisen the prevalent notion that the action of evacuant medicines is to produce increased determinations of blood to those organs upon which they operate. It is not improbable, however, that the whole doctrine of increased action of the larger arteries, by which alone such determinations could be produced, is founded in error, and supported by prejudice; and that not only the increased secretions, but blushing and the turgescence of certain organs, and the violent pulsation of the arteries leading to them, on the one hand, and the paleness and flaccidity of these organs on the other, imply not a greater or less action of the larger arteries, but, on the contrary, a less or greater action of their capillary extremities, by which they either retain for a longer time, or expel more rapidly, the blood which they receive. There is no cant in all pathology more common, and at the same time more totally unsupported, than that of increased determinations of blood; since, even admitting the muscularity of the larger arteries, (which is a very questionable point,) although it is easily conceivable how this might have the effect of excluding blood from certain organs, it is quite inconceivable how it should have the effect of determining blood to them. The capillary arteries of each part, however, have obviously an action independent of that of the heart; and it is consequently much more reasonable to believe that the greater quantity of blood collected in each organ, preparatory to an increased secretion, depends not upon more being carried to them, but upon what is carried being less immediately propelled forwards. Nor is the increased pulsation of the larger arteries under similar circumstances any argument against this doctrine. Such an increased pulsation may be immediately produced in the digital arteries by tying a ligature tightly round the extremity of the finger; and in this instance it evidently indicates not a greater determination of blood to the part, but a less easy transmission of blood through it; and, when a similar pulsation occurs spontaneously, it seems infinitely more satisfactory to presume that it is the capillary arteries which are the first cause of this perturbation, and that the larger arteries appear to act more forcibly only because the blood has a greater resistance to overcome: in the same way as a rivulet, which flows placidly along the rest of its bed, beats with violence against any impediment placed in its course, although the propelling powers are no greater here than elsewhere. But, independently of the improbability of such increased determinations of blood ever taking place, they are obviously quite unnecessary

in the instances of increased secretions; every organ, even in the natural state of its functions, receiving perhaps two or three hundred times more blood than is employed in this process. The kidneys, for example, are estimated to receive about 450 pounds of blood during the twenty-four hours, while the secretion of urine does not commonly exceed thirty ounces. Is it necessary to imagine that there must be an increased determination of blood to these organs, to explain the operation of a diuretic medicine, upon the presumption that the 450 pounds, just mentioned as their daily allowance, cannot of themselves spare half a dozen ounces more than usual to be turned into urine? The action of these, as well as all other evacuant medicines, is evidently upon the capillary arteries of the part, to the specific irritability of which they are adapted; and the accumulation of blood in this part, necessary to increased secretion, is owing to the diminished action of these arteries; a necessary consequence of the increased irritation to which they have been exposed.

B. Indications-which they fulfil.

Evacuant medicines are employed sometimes, as the purgatives, emmenagogues, and diaphoretics, in order to promote the natural secretions by any means impeded; at others, as the demulcents and expectorants, in order to change the nature of local secretions; at others, as the emetics, purgatives, and carminatives, in order to relieve certain organs from a foreign load; and at others, lastly, as the errhines, sialogogues, emetics, purgatives, diuretics, and diaphoretics, to operate by revulsion: in other words, when an organ upon which we cannot immediately act is affected with inflammation, consisting in a preternaturally relaxed state of its capillary arteries, to bring about in some distant part a new irritation, which, being conveyed by sympathy to the organ primarily affected, may stimulate its vessels to a healthy contraction. This is not the ordinary explanation, but I feel satisfied it is the true one, of revulsive remedies. The doctrine of revulsion is as old as Hippocrates; and the attempt to cure inflammatory and other diseases by promoting evacuations from distant organs was founded on the observation of the critical discharges by which such diseases seem to be often suddenly resolved, or which, at least, often attend their resolution. Of course, the benefit derived from the practice was at first explained by the theory of a translation of peccant matters, or of the fluids called into play in order to expel them; but, as it was soon noticed that remedies called revulsive frequently produced equally good effects,

although unattended with any discharge, it became necessary to establish it as a law of the animal economy, that two morbid impressions could not subsist together in the same body, so that, a secondary and stronger one being promoted, the primary and weaker one necessarily ceased, “*Δύω πόνων,*” says Hippocrates, “*ἅμα γινομένων, μὴ κατὰ τὸν αὐτὸν τόπον, ὁ σφοδρότερος ἀμαυροῖ τὸν ἕτερον;*” and this assertion, gratuitous as it certainly is with respect at least to irritability, which has, as I have shewn, many totally independent mansions, however well founded it may be with respect to sensibility, which has but one, has been received since his time almost as an axiom; and while inflammation was considered to consist in increased action of the part affected, it was certainly a very convenient one. But inflammation is at present generally understood to consist, not in increased, but in diminished action of the capillary arteries of the part; so that our explanation of the benefit to be derived from revulsive remedies must be, *toto cælo*, different from that formerly adopted, and must be founded upon the presumption that they communicate, not abstract a stimulus, and thus promote by the contraction of the dilated vessels, already, if necessary, freed by bloodletting of a part of their load: and this doctrine, however staggering it may be found, as directly opposed to preconceived opinions, is perfectly reconcileable to every unprejudiced view of the question, and either must be adopted, or the whole modern theory of inflammation must be entirely abandoned. The action also of those direct applications found most efficacious in the cure of inflammation is highly favorable to this view of that of indirect or revulsive remedies. “When such inflammation occurs in a superficial part, as the eyes, tonsils, or skin, the local applications in the forms of collyria, gargles, and lotions, from which we derive most benefit, are such as immediately irritate the dilated arteries: and, in the inflammation of a deep-seated part, some of the most efficacious local remedies, such as heat, electricity, and acu-puncture, manifestly act as direct and powerful stimulants;” and the only difference that seems to exist between the operation of these remedies and those reputedly revulsive is, that, what the former effect directly, the latter effect indirectly, or by sympathy.

c. Operation of Astringents.

Directly opposed in their sensible effects to the evacuant medicines are the astringents, the peculiar action of which seems to depend upon the constriction of the capillary arteries which they occasion, being generally (as blushing sometimes

immediately succeeds paleness,) followed immediately by a proportionate collapse; and this again (as a more or less permanent paleness frequently succeeds a blush,) by a more or less permanent constriction. That this is the case is rendered probable by the fact, that some of the strongest astringents, such as alum, if given in too large quantities to allow of this secondary constriction, prove, as I have before observed, not astringent, but relaxing. It must not, therefore, excite surprise that this class should contain many of the medicines commonly enumerated among the evacnants; since it may be easily inferred, from what has already been said, how slight a variation of circumstances may make the same medicine give rise, at different times, to directly opposite effects.

D. *Operation of Stimulants, Sedatives, &c.*

The stimulants and tonics appear to be analogous in their action to the several evacuant medicines already spoken of; and the sedatives, antispasmodics, and narcotics, to the astringents; inasmuch as the two former seem to produce, first a constriction, and afterwards a dilatation of the capillary arteries of the brain, and, consequently, first a diminished, and afterwards an increased evolution of the influence derived from this organ; and the three latter, in like manner, seem to produce, first, a diminished, afterwards an increased, and, lastly, a still more diminished evolution of this influence. The stimulants seem to differ from the tonics principally in their effects being more sudden and violent, and in the same degree more transitory, since both act apparently in exciting equally every organ of the body. Of those classes of medicines, however, which seem to lessen the action of the brain, those are called sedatives which diminish the stimulus sent from this organ, more particularly to the heart; those are called antispasmodics which diminish the stimulus sent from the brain to any of the muscles, whether of involuntary or voluntary motion; and those are called narcotics which at the same time diminish sensibility, the faculty of thinking, and the power of exciting voluntary motion.

E. *Operation of Antacids, &c.*

The two last classes of medicines which I have mentioned are the antacids and anthelmintics. Of these, the action of the former is directly chemical; while that of the latter is either chemical, as operating in dislodging the worms by dissolving the mucilage in which they are imbedded; mechanical, as operating by friction; or poisonous, as operating by directly killing them. Simple purgative medicines also fre-

quently act as anthelmintics, and are commonly used to assist the action of those substances more properly so called; but to the operation of these medicines, as evacuants, I need not again revert.

4. *Combination of Medicines.*

Medicines, in order to adapt them to the various methods in which they are administered, are prepared, either separately or conjointly, in various forms, solid and liquid; but, in prescribing compound medicines, it is proper continually to keep in mind that the properties of the compound are by no means always the mean of the properties of the ingredients, but that, while sometimes these latter properties are corrected or neutralized by such combinations, at others they are considerably increased, and at others entirely new properties are superadded. It is sufficiently well known that two or more medicines of the same description given in combination frequently produce a much greater effect than the same dose of each individually would have done; and the influence exerted by one class of medicines upon those of a different character, not only generally but individually, is so infinitely varied, that it is almost impossible to say, *a priori*, what particular indications any such compound medicine is calculated to fulfil. It hence follows that we should be extremely cautious in excluding any medicine, however farraginous, the efficacy of which is supported by experience; and perhaps the old propensity for excessive complication in medicinal prescriptions, and for a vast choice of them, was not more reprehensible than is the modern one for excessive simplification and paucity. We know nothing of the specific properties of any medicine, whether simple or compound, but by its results; and we are no more justified in concluding that any composition is inadequate to effect the object for which it is administered, because its ingredients are respectively inert, than we should be in denying the violently explosive effect of gunpowder, because neither carbon, sulphur, or nitrate of potash, are severally possessed of that property. Nor is it unreasonable to suppose that a very slight variation of the ingredients of any compound medicine, or in their proportions, may sometimes make a considerable difference in its action. How can we tell, for instance, what new chemical compounds result from the mixture of ipecacuanha, opium, and sulphate of potass, in Dover's powder; or how the emetin, meconate of morphia, salt of potass, &c. mutually affect each other; and, if we cannot do so with respect to the compounds formed by artificially mixing different roots, gum resins, and

salts together, still less can we do so with respect to those roots and gum resins themselves, composed as they are of numerous principles put together by the hand of nature; and this reflection should make us very jealous of rejecting certain of these principles, in the presumption that they are inert, and of relying upon others, in the presumption that they alone are active. The ridicule thrown upon multifarious medicinal prescriptions by Pliny among the ancients, and by Montaigne among the moderns, is perhaps deserved; and it is probably true that "one might as well," as Dr. Baynard remarks, "prescribe the powder of an old-fashioned bedpost as some of the receipts of ancient authors;" but it is to be feared that we have gone, or at least are going, too far at present on the simplifying system: "Præstat," says Cicero, "copiâ quam penuriâ premi." If Nicolaus Myrepsis has admitted into his work too many compound medicines, the number of which is not very far short of three thousand, and if Dr. Huxham was too fond of a complication of numerous ingredients in his prescriptions, which sometimes contained, it is said, not fewer than four hundred substances, it may be doubted whether we have not recently gone into the opposite extreme. The three British Pharmacopœias together do not contain in the present day more than fifty distinct compound medicines; but he who reflects as well on the endless diversities in the idiosyncrasies of the human body, as on the more or less specific action of every medicine, simple as well as compound, although he may not, like Van Mons, sigh for the restoration "to their primitive state of all those *bizarres* receipts whose credit time has spared," will yet certainly regret that the "*novæ vires mixturâ variorum*" of Gaubius, the new virtues of compounds, (which, as supposed by Dr. Ferriar, are analogous to the harmony of colours and of sounds,) the "*tertium quid*" of Shearman, or the adjective as well as substantive powers of Paris, should be sacrificed to a fastidious science, and that any compound medicine of acknowledged efficacy should ever be wantonly expunged and voted inert, because we cannot easily explain why it should be otherwise.

Before concluding these observations, I must observe, that they are deeply tinged,—particularly that portion relating to inflammation,—with the views taught and inculcated by my talented friend, Dr. Fletcher, of Edinburgh. It is with much pleasure that I look back to the time I attended that gentleman's class, and with still more that I acknowledge how great has been the colouring his instructions have given to my own opinions and practice. The reader will

170 DR. STROUD'S *Case of Pulmonary Consumption.*

find some of the preceding doctrines ably supported, in a probationary essay by Dr. Fletcher, printed in 1829; upon which I have not hesitated occasionally to draw.

Dumfries, 1834.

Account of a Case of Pulmonary Consumption, in which nearly the whole of the right lung was converted into an immense vomica, attended with universal adhesion, and partial absorption of the pleural sac. Communicated to the Harveian Society, by WILLIAM STROUD, M.D., Physician to the Northern Dispensary, &c.

ON the 31st of March, 1832, I was requested to visit, as a patient of the Northern Dispensary, James T***y, aged twenty-six years, and formerly a domestic servant. I found him labouring under a severe pectoral complaint, of four months' continuance, which had been preceded by diarrhœa, and was ascribed to his having passed the two previous months in a damp house. He has a distressing, and convulsive cough, which disturbs sleep, and excites pain about the sternum, the head, and the inner sides of the thighs. His expectoration is very thick, and glutinous, but not copious. He is generally in bed, and feels best when lying down. On assuming the erect posture, the cough is aggravated; and, by an effort between coughing and vomiting, a yellow, puriform liquid is expectorated. Formerly he could not lie well on the right side, but can now lie with ease on either side, as well as on the back. The chest is much emaciated, and the ribs are conspicuous. In the right side, which is rather hollow, a pulsation can be perceived, on listening with attention; but it yields little sound on percussion, and no respiratory murmur, except under the clavicle. The left side is more resonant on percussion; and, except at its lower part, yields a tolerable respiratory sound. The action of the heart is moderate, the pulse at the wrist, in the recumbent posture, is one hundred, and feeble. He is very weak, and thin, has lately had at intervals several rigors, but has little fever, and no pain, except in the front of the chest, on coughing. A short time since, he was somewhat jaundiced; and, about a month ago, a quantity of viscid, blackish mucus, accompanied with tormina, was discharged from the bowels. The dejections, at the same time, were dark-coloured, but afterwards became yellowish, and the urine, which is not yet quite natural, was red, and turbid. His tongue is whitish in the middle, with red edges, he has little thirst, or appetite, and occasionally vomits his food. The abdomen bears pressure well, and exhibits no morbid appearance. About two years before his present complaint, he laboured for

six weeks under continued fever, but without any marked affection of the chest; and his relatives are said not to be subject to phthisis.

Prescriptions. Aquæ puræ, f̄ ʒvj.; Tinct. Iodini, f̄ ʒss.; Tinct. Camphor. comp., Tinct. Gentian. comp., aa f̄ ʒiv., Sumatur f̄ ʒj. ter in dies. Extract. Hyoscyam. gr. v. omni vespere. Pectori superiori imponatur Emplastr. Picis.

During the following four, or five weeks, he underwent little change; but, on the whole, seemed to improve. On account of the confined state of his bowels, purgative medicine was occasionally administered. As the mixture was thought to excite a sense of heat in the chest, the Tinct. Iodin. was reduced one half, and the Tinct. Hyoscyam. was given, instead of the Tinct. Camphor. comp. With a view to procure rest at night, the Pil. Sapon. cum Opio were substituted for the Extract. Hyoscyam., but without much success.

May 10th. I found him dressed, and sitting in another room, where he had been taking his supper, and, in appearance, better than I ever saw him, either before, or afterwards. His cough is mitigated; his expectoration is whiter, thinner, and more frothy; his bowels are open, without medicine; and his sleep is less disturbed. His pulse, at the same time, is 120 in the sitting posture, and weak; his respiration is scarcely audible, except at the upper part of the left side of the chest, and his general frame is much emaciated.

Prescriptions. Extract. Aloes, Extract. Jalap. aa gr. xv.; Pulv. Gambog. gr. v.; Pulv. Colocynth. gr. x.; Ol. Croti gutt. v.; Ol. Juniperi, q. s. Fiant pil. xij. quarum sumantur ij. primo mane, prout opus fuerit. Aquæ puræ, f̄ ʒvj.; Potass. Nitrat. ʒj.; Tinct. Iodin. m. xx.; Tinct. Hyoscyam. f̄ ʒiss.; Tinct. Gent. comp. f̄ ʒiv. Sumatur f̄ ʒj. ter in dies. Sumat omni vespere Extract. Hyoscyam. gr. v. Bibat in dies Decoct. Lichen. Oct. j.

19th. Almost immediately after the last report, an unfavourable change took place. The cough, having again become violent, disturbs his sleep, and excites severe pain in the right side of the chest, which now yields a tolerable sound on percussion, but no respiratory murmur. To this side the patient refers the whole of his disease; and from thence, alone, supposes the expectoration, which is now copious, frothy, and mucilaginous, to proceed. The pulse in the recumbent posture is 116, and weak. The right cheek is sometimes coloured, while the left is pale; and, after a fit of coughing, the hand, and other parts on the right side of the body, are often warm, while those on the opposite side are cool.

Prescriptions. Pectori dextro superiori affigantur hirud.

172 DR. STROUD'S *Case of Pulmonary Consumption.*

vj. Aquæ ferventis, Oct. j.; Gummi Tragacanth. ʒj. Fiat potio mucilaginoso, cui frige factæ adjiciantur Tinct. Hyoscyam. f iij.; Vin. Ant. Tart. f ʒiij. Sumatur f ʒj. ter in dies. Sumat. omni vespere Pil. Sapon. cum Opio, gr. v. Repetr. Pil. Cathart. et Decoct. Lichen.

31st. The leeches drew a good deal of dark-coloured blood, with temporary relief; but a violent cough, which is much excited on swallowing liquids, has renewed the pain on the right side of the chest. The expectoration, which is less copious, resembles in appearance thick mucilage, and contains whitish particles. During the last two, or three days, he has suffered from diarrhœa, with flatulence, and is in consequence weaker, and more emaciated; yet the pulse in the recumbent posture is only 106, and tolerably strong, but the countenance is pale, hollow, and almost Hippocratic.

Prescriptions. Mist. Cretæ, f ʒvj.; Tinct. Digital. m. xx.; Tinct. Camphor. comp. f ʒiv. Sumatur f ʒj. ter in dies. Repetr. Pil. Sapon. cum Opio, et Decoct. Lichen.

June 2d. The bowels are more composed; the countenance is improved, and he is rather better; but the cough, which is excited whenever he rises in bed, or swallows any liquid, is still distressing. The skin of the chest is hot. Although the right side is hollowed, or contracted in the middle, the ribs are protuberant, with deep intervening furrows. On applying the ear to this side, a metallic tinkling is now, for the first time, perceived.

Prescriptions. Pectori dextro admoveatur Emplastr. Cantharid. Rep. med.

8th. The blister operated well, and gave some relief; but there still remains a dull pain in the right side of the chest, which is aggravated by the erect posture, and attended with a copious expectoration.

Prescriptions. Aquæ puræ, f ʒvj.; Potass. Nitrat. ʒj.; Pulv. Acaciæ Gummi, ʒiij.; Tinct. Digital. f ʒss.; Tinct. Camphor. comp. f ʒiv. Sumatur f ʒj. ter in dies. Repetr. Pil. Sapon. cum Opio, et Decoct. Lichen.

10th. He is somewhat better. The right side of the chest is now nearly free from pain, but very sensitive to pressure. The Pil. Sapon. cum Opio have little effect in procuring sleep; and the draught seems to excite cough, which is always aggravated by the erect, and relieved by the recumbent posture. The expectoration is copious, and mucilaginous. His pulse is 100, and sufficiently full, and strong: his tongue is red, with good appetite, and no thirst; his bowels, and urine, are natural. The middle of the right side of the chest, which is hollow, or depressed, now yields a clear sound on percussion, and, when

the ear is applied, a shrill tinkling, like that produced by water dropping from a height into a metallic capsule. The lower part of this side is extuberant, and without resonance. The respiratory murmur is heard on the left side only, and there, chiefly, at the upper end, near the clavicle.

Prescriptions. Potion. Mucilag. antea præscript. f̄vj.; Tinct. Digital. f̄ss.; Tinct. Camphor. comp. f̄iv. Sumatur f̄j. ter in dies. Repetr. Pil. Sapon. cum Opio, et Decoct. Lichen.

14th. Yesterday the diarrhœa returned; the appetite for food ceased; and, although the cough is somewhat relieved, he is now evidently, but gradually, sinking.

Prescriptions. Mist. Cretæ f̄vj.; Tinct. Opii, m. xx.; Tinct. Cinchon. comp. f̄iv. Sumatur f̄j. ter in dies. Repetr. Pil. Sapon. cum Opio, et Decoct. Lichen.

21st. Although the Tinct. Catechu was substituted for the Tinct. Cinchon. comp., the diarrhœa continued, and increased. The dejections were numerous, and yellow, and were attended with pain about the umbilicus, and with a sense of pulsation in the lower part of the abdomen. The urine was natural. On getting out of bed yesterday, the right side of the chest was attacked with acute pain, and with a peculiar, and distressing feeling, as of instant death, which occasioned him to cry out. At length, about seven this morning, after some tossing of the limbs, and slight convulsive movements, in full consciousness of his approaching dissolution, he slowly, and tranquilly expired, nearly three months from the period of my first visit. After death, the whole right side, together with the right leg, was found somewhat contracted, so that the body could not be laid out straight.

Post-mortem Appearances. With the assistance of Mr. G. Harwood, I obtained an inspection two days afterwards, June 24, 1832, when the following appearances were observed.

General Conditions. The body was exceedingly emaciated, the bones being everywhere very conspicuous; yet, owing in part, no doubt, to the great care which had been taken of the young man, there was neither sloughing, nor ulceration. The face was hollow, and wasted; the eyes, and mouth were half open; but the hair, which was of a dark colour, was thick, and strong. The right side of the chest was considerably contracted, as if flattened, or compressed; the ribs being bent at a sharp angle on the outer side, and hollow, or collapsed in front. Both sides of the chest sounded tolerably well on percussion, but the left better than the right.

The body contained scarcely any blood, and no fat. The commencement of putrescence was announced, in the abdo-

174 DR. STROUD'S *Case of Pulmonary Consumption.*

men, by a slight degree of greenness, fetor, and emphysema. The skin was so extremely emaciated, and adherent to the subjacent parts, as to require much pains to dissect it off. The muscles, although wasted, were tough.

The head, and spine were not examined.

Thorax. The principal morbid appearances were those of pulmonary consumption, by which the greater part of the right lung had been converted into an immense vomica, closely adhering to the parietes of the chest. The pericardium, which was rather ample, and loose, as if it had once enclosed a larger heart, exhibited more serous effusion, and of a deeper colour than usual. The heart was rather small, but firm, and sound; and, notwithstanding the general weakness, and wasting, the walls of the left ventricle were of considerable thickness, and strength. In the cavities of each side was a moderate quantity of blood, chiefly in the state of soft, red coagulum; and, in those of the left side, there was also a yellowish, semitransparent coagulum, owing apparently, to the slowness with which death had taken place.

The mediastinum was thick, short, and diffuse. The left pleural sac was free from adhesions, and contained a small quantity of serous liquid. The left lung did not fill its cavity; yet, when extracted, was found to be firm, heavy, and voluminous, owing to an extensive deposit of tubercular matter, the hardness, and irregularity of which could be felt externally, on pinching the surface. Of this deposit, a small portion was in the state of minute grains, of equal size, and of globular shape. A larger portion had formed numerous vomicae, from the size of a pea, to that of a walnut. Some of them, situated near the surface, had no other exterior covering than the pleura, which exhibited, in consequence, corresponding dimples, or depressions. Several of them, lying in clusters, were confluent, or, at least, continuous. They were, in general, half filled with a thin, puriform liquid, and, in some instances, were lined by false membrane. But, by far the greater part of the tubercular deposit was in the intermediate state of opaque, whitish, flocculent masses, continuous at the centre, but broken at the circumference, and, in texture, or configuration, much resembling certain varieties of granite. There was little appearance of interstitial inflammation: on the contrary, several lobules, in immediate contact with the tuberculated portions, seemed to be quite healthy, and capable of performing their function. The trachea, and its primary branches, were spacious, and the lining membrane was pale. Some of the larger bronchi contained a little white, opaque, frothy liquid, but this was not generally diffused; and, on making sections

into the lung, there was no effusion either of blood, serum, or mucus. The bronchial glands were enlarged. Some of them were reddish, and others of their usual dark colour.

The greater part of the right lung was, as before stated, converted into an immense, and nearly empty vomica, capable of holding three, or four pints, but actually containing only a small portion of thin, puriform liquid. The remaining pulmonary substance was hepatized, and of a dark grey colour, forming a dilated sac, of which the thickest side was towards the mediastinum, and the thinner adhered closely, and universally, to the parietes of the chest; the two pleuræ being, as it were, amalgamated, and inseparable. In some places, the united membrane, and probably the periosteum, also, were entirely removed by absorption, down to the ribs; several of the lowermost of which had, consequently, produced, near their angles, small, white, exostoses, partly smooth, partly rough, and foliated, like morbid epiphyses, attached by an intervening membrane to the original bone. The internal surface of this spacious pulmonary cavern was irregularly roughened by coarse granulations, and lined with thick, yellow pus. It was traversed, more especially at the upper end, by several fleshy ropes, apparently, the insulated remains of blood-vessels, which had resisted the general ulceration. Its extent downwards, or towards the abdomen, was much limited, so that the diaphragm rose within the chest nearly as high as the fifth rib. The communication of this cavity with the bronchial tubes was not conspicuous; but, from its nearly empty state, and from the quality, and amount of the preceding expectoration, the existence of such a communication might fairly be inferred.

Abdomen. The peritoneal sac contained little, or no effused liquid. The omentum was voluminous, dark-coloured, and entirely destitute of fat; and, near the navel, adhered firmly to the parietes by a slender chord. The stomach, which was distended with gas, was very large, thin, and capable, seemingly, of holding three, or four pints; its capacity, in part, perhaps, depending on the assiduity with which the young man had been supplied with nourishment by his attendants. Its mucous membrane was sound, presenting only a small extent of petechiated surface, and a few rugæ. The pylorus was thin, and its aperture large. The small intestines were generally plump, and somewhat distended with liquid, and gas. Some portions, comprehending their entire cylinder, were of a deep red colour, but without any thickening, contraction, or adhesion. The duodenum, like the stomach, was capacious, and inflated.

The large intestine, except from the sigmoid flexure downwards, was contracted. The cœcum was narrow, and scarcely projected beyond the end of the ileum. The appendix vermiformis was short, serpentine, and adherent. The mucous membrane of the colon, lined with yellow, healthy-looking feculent matter, was partially inflamed, and presented numerous small ulcers, of a round, or oval form. Some of these ulcers were seated on an inflamed base; but others appeared as if punched out of the sound membrane by a sharp cutting instrument. A few similar ulcers were found on the inner surface of the extremity of the ileum, and on the edges of the ileo-colic valve, but did not seem to extend further upwards in the small intestines. The veins of the mesentery were, in general, much distended with blood. Its glands were enlarged, oblong, and of a dirty-white colour. Near the cœcum, a few smaller glands were harder, and more globular.

The liver was of fair size. Its peritoneal coat was rather dark coloured; owing, perhaps, to the incipient extrication of sulphuretted hydrogen gas. Internally, it was soft, and slightly mottled throughout, with angular, or polygonal, white lines; but, on section, it yielded no exudation, either of blood, bile, or serum; although the venous trunks traversing its substance, as well as the inferior cava, were large, and thin. The gall-bladder contained a little orange-coloured bile, diluted with mucus, but without concretions. The spleen was rather small, and conglomerate, its internal condition varying in different parts; for, on making sections into it, one portion was found of its usual dark hue, while an adjacent portion was of a light red colour, and soft texture, with a paler, peritoneal coat. The pancreas was small, slender, and soft, with distinct, and full-sized lobules. The kidneys, containing little urine, and destitute of fat, were fleshy, firm, and nearly in a natural state; but the right kidney, corresponding to the pulmonary vomica, was diminutive, and its ureter very slender. The urinary bladder was empty, and collapsed.

REMARKS. The interest of this case of pulmonary consumption chiefly consists in the contrast which it presents between the progress of the same disease in the opposite sides of the chest; and in the gradual, and silent manner, in which almost the whole of the right lung had been destroyed, and removed; while the left lung, although greatly disorganised, was nearly in a solid state. The whole probably depended on the absence, or, at least, on the low degree of inflammatory action; a circumstance strongly marked in the remaining lung, wherein there was

neither adhesion, effusion, nor hepatization, but, on the contrary, small portions of healthy pulmonary substance were, in many instances, intermingled, and in close contact with tubercular masses; showing that inflammation has no necessary connexion with phthisis, either as cause, or as effect. The same fact was, in some measure, displayed in the mucous membrane of the colon, which contained a number of small, circular, phagedænic ulcers, entirely free from surrounding redness, or turgescence; and which were, more probably, the result of nervous, than of vascular action. The irritation of various portions of the mucous lining of the ileum, and colon, so common in the latter stage of phthisis, is, evidently, a sympathetic affection, remotely excited by the diseased lung; and the medium of intercourse in this, and, in other cases, seems to be furnished by the minute, but important, and universally diffused nerves of the ganglionic system, which preside over the nutritive functions; and, according to their varied condition, are capable of increasing, lowering, or modifying vital action, in the parts which they supply, and, thereby, of producing all the diversities of vascular action, as well as of organic composition, or dissolution.

Another interesting circumstance presented by this case is the clearness of its diagnosis, resulting, chiefly, from the absence of respiratory murmur throughout the whole right side of the chest, in conjunction with its contracted, and excavated form, and with deficiency of resonance on percussion, until the immense vomica which it contained had been partially emptied; when, together with returning resonance, the characteristic sign of metallic tinkling was distinctly added. The value of the acoustic signs, on such occasions, may be estimated by comparing the prompt, and certain knowledge of internal conditions, attainable by their aid, with the vague conjecture, or total ignorance, which are the unavoidable consequence of neglecting them.

This case, when compared with the preceding one, displays, also, the striking contrast which exists between the two principal forms of pectoral abscess, namely empyema, and pulmonary vomica, according to their situation, within, or without the pleural sac, in their influence on the dimensions of the thoracic cavity; which the latter tends to diminish, and the former, at least in the first instance, to enlarge. The enlargement is manifestly occasioned by the pressure of a confined, and accumulating liquid. The diminution seems to depend on a slow, but powerful contractile process, which, in the pleura, as in other serous membranes, whether original, or adventitious, is induced by inflammation; and which, as my friend, Dr.

Hodgkin, and other pathologists have shown, usually produces a remarkable effect on the shape, and size, of the parts to which they are attached.

In the last place, this case, in common with many others, illustrates the specific, and, to a certain extent, the hopeless aspect of phthisis, as resulting from a peculiar aberration of the nutritive functions, originating, probably, in the ganglionic system, and, in a great measure, beyond the reach both of investigation, and of relief. In its earliest observable stage, the disease exhibits a number of membranous vesicles, of a distinct, and malignant character, somewhat like obstructed, and dilated follicles; absorbing nutriment from the surrounding parts by their external surface, and secreting within their cavities a whitish, albuminous pulp, at first semitransparent, but afterwards opaque, and, in appearance, resembling soft cheese. Near the surface, and, more especially, at the summit of the lungs, a few tubercles of large size are sometimes found, and may be compared to the indolent deposits which, in the common cellular membrane, give rise to strumous abscesses; but, in the interior of the organ, they are usually small, and numerous. When they have attained a certain period of development, either from the distention of their accumulating contents, or from some other cause, they seem to lose their vitality, become softened, and are commonly discharged into the bronchial tubes, leaving so many empty, and, in general, suppurating cavities in their room.

This process includes all that is essential to phthisis; which, as in the case now under consideration, sometimes pursues a simple and tranquil course, attended with little pain, or disturbance, until, by compression, and interstitial absorption, the greater part of the lungs has been silently removed; so that, when the tubercular growth which has usurped its place falls, at length, into dissolution, the sooner, perhaps, in consequence of being thus by its own agency deprived of nutriment, a vomica of the largest size is suddenly created. If, on the other hand, the tubercular deposit is more limited in its extent, and more equally intermixed with the pulmonary substance by which it is sustained, it may for a considerable time retain its firmness, and the vomicae in which it ultimately terminates are either small, and detached; or, if larger, attain their bulk, by successive confluence, producing, often, an intricate and extensive labyrinth of pulmonary caverns.

The more active and distressing varieties of phthisis may, perhaps, in part depend on original differences of organization, and of susceptibility; but, more immediately, on the

addition of inflammation, in various forms, and degrees, either of the pleura, of the bronchial membrane, or of the pulmonary substance, to the original tubercular deposit. By such inflammation, and its results, the local symptoms of pain, dyspnoea, cough, and expectoration are aggravated, and the organic nerves derived from the eighth pair, and from the ganglionic system, are violently irritated, giving rise to sympathetic disorder in various points, together with hectic fever, cerebral disturbance, and universal restlessness, and distress. In the former case, the greater part of the lungs is gradually, and insidiously undermined, and death is chiefly induced by the abolition of their indispensable function. In the latter, while a large portion of the organ remains apparently sound, the more penetrating inflammation, and ulceration of a small fraction of their substance is sufficient to occasion intense suffering, and to accelerate death, through the medium of fever, and of irritation.

Hence, the supreme importance of early diagnosis, to recognize the morbid disposition, and of early treatment, to anticipate, if possible, the tubercular formation. The hopeless aspect of the complaint, when far advanced, must be evident, from a consideration of its nature, and tendency. Individual cases may, undoubtedly, differ greatly, in severity, and in extent; much may be done by preventive measures; and, more especially, by the cautious use of iodine, the universal antidote of scrofula; pulmonary ulcers, when of limited character, may admit of being cicatrized, or of being lined with false membrane; but, when the disease has once attained a certain growth, no remedy with which we are at present acquainted, or which we are likely to discover, can repair the injury committed, remove with safety the adventitious deposit, or restore the pulmonary substance already destroyed.

Cases extracted from the Obstetric Note-book of the Welbeck-street Dispensary, by permission of HENRY DAVIES, M.D., Physician to the British Lying-in Hospital, &c.

CASE I. A copious Discharge of a Watery Fluid during Pregnancy, not followed by premature Labour.

FEBRUARY, 1825. Anne Scott, æt. twenty-seven, applied at the Dispensary, stating that she feared she should be delivered even before she could reach home, as she had been discharging a clear, watery fluid, for the last three or four days, and could feel the child exactly as if it were coming into the world.

She has had two children, and has miscarried once, but

has never experienced the sensations which she has now; but in her first pregnancy she had a discharge of a semitransparent fluid for about a month before delivery.

March 28th. Mr. Taylor sat up with her all night, at her request. On examination, the cervix uteri was found elongated, and the os uteri was alternately dilating and contracting; at every dilatation the patient lost at least a pint of clear fluid. No part of the child presented, and no resisting tumour could be felt on pressing the abdomen. Two injections were administered, as well as a dose of castor-oil; and on the following night a sedative was given.

July 25th. The patient continued her usual avocations, though the fluid dribbled away, until today, when Mr. Taylor was again called to her at half-past twelve P.M. She was suffering from regular labour-pains, after which she expelled a quantity of fluid. She would not consent to an examination per vaginam.

26th. The pains still continue, followed by a gush of fluid.

28th. On examination per vaginam, the head of the child was plainly to be felt presenting at the brim of the pelvis. The pains continued, though neither so strong nor so frequent, and the fluid was continually dripping from her till

August 9th, when she was delivered of a small female child, at half-past two A.M. As the placenta was not expelled by the natural efforts, Mr. Taylor passed up his hand at five o'clock, when he found it attached to the uterus by a few fibres, which were detached with great difficulty and much suffering to the patient. She was ordered not to be moved, as there was some hemorrhage, and the uterus did not contract, and to have nothing but cold toast and water.

11th. Much better. The pains are still very severe, and are increased by pressure. Pulse soft, and rather quick; the bowels have not been open since delivery. She was ordered to be fomented, and to take an aperient.

12th. Can bear pressure on the abdomen, but complains of a tightness about the head. The milk begins to flow. Bowels regular; pulse natural; tongue clean, and moist.

She continued to improve, and before the end of the month was able to do her household work.

Observations. The above case was attended and reported by Mr. Taylor, excepting that I examined the patient the latter end of March, after he had been up with her a few nights before. She imagined that she had become pregnant in August 1824; but she was probably mistaken, as she experienced a discharge of blood three months afterwards,

most likely the catamenia, accompanied, as they sometimes are, by hemorrhage. It is probable that she became pregnant in November, and quickened in March; the latter occurrence being attended by a disposition to miscarry. The immense discharge of fluid evinces the ample provision made by nature to guard the conception from pressure. These large watery discharges not unfrequently occur during pregnancy, without being followed by the expulsion of the contents of the uterus, but their source does not seem to be clearly ascertained. By some it is thought that a portion of the decidua is separated from the surface of the uterus, from which the discharge is secreted. Others suppose that a collection of fluid may take place between the chorion and amnion, forming what has been called false waters. It has also been asked, whether it may not be a portion of amniotic fluid escaping through a slight fissure of the amnion, some distance above the os uteri, and then the farther egress be prevented by a contraction of the uterus. But, whatever theory may be formed on this point, it is a practical fact, that if moderate care be taken of the patients, they will frequently complete the full period of utero-gestation without any apparent detriment to the foetus.

The indications for the treatment of patients under these circumstances appear to be, 1st, to remove all causes of excitement, whether general or local; 2dly, to tranquillize the system; 3dly, to keep the patient in a state of perfect rest, and in the horizontal posture, while the least discharge remains.

Mrs. Scott became pregnant again, and, having passed through the period of pregnancy without any untoward occurrence, was delivered of a healthy girl, June 9th, 1827.

CASE II. *Tedious Labour, from Adhesions in the Vagina.*

August, 1828. Hannah Ellis, æt. nineteen, of a delicate constitution, states that she was delivered of a still-born child thirteen months ago, by means of instruments, in consequence, it would seem, of defective uterine action; for she says, that, after having been in labour four days, the pains became too feeble to expel the child, and that it was then extracted with the forceps. Inability to retain the urine, and great soreness of the vagina, subsequently came on; the first continued for a few days only, the soreness for several weeks; at length she began to feel some obstruction, or what she calls "a lump," in the vagina, which made intercourse difficult, though it yielded a passage to the catamenia. About five months after her delivery, notwithstanding the above circumstances, she

fell pregnant, and from that time to the present she has suffered more or less from great pain and soreness of the vagina, with leucorrhœal discharge; these symptoms have been latterly conjoined with an œdematous state of the labia.

August 9th. This morning she was attacked with slight pains in the loins, which may have been brought on by intestinal irritation, as she is labouring under diarrhœa, accompanied with griping and tenesmus. On making an examination per vaginam, the finger was obstructed about two inches from the os externum, by a firm unyielding substance, or strong membrane, completely impervious, except at the lower part, where these seemed to be a small aperture, with a thin edge, not capable of admitting the point of the finger. This obstruction was in all probability produced by cicatrization of the sides of the canal, the result of injury inflicted on its membrane by the instruments, or by the long impaction of the head in the pelvis during her last labour. There was a profuse muco-purulent discharge, and the vagina, particularly at the obstructed part, was so exquisitely sensitive, that the patient would scarcely submit to an examination.

Opiates were given to allay the intestinal irritation, and fomentations applied to the pudenda.

August 11th. The diarrhœa has ceased, but since the 9th she has been harassed with slight but frequent pains in the loins. This morning the membranes broke, and the pains have left her; she has ceased also to feel the movements of the child. The uterus has evidently subsided. On examination, the obstruction was found unaltered, and no presentation could be discovered.

August 14th. There has been no recurrence of pains since the 11th; they are now returning, but are feeble, frequent, and ineffective.

August 15th. The pains towards the evening became more forcible, and a discharge of blood was observed. The vagina is rather more relaxed. The patient is exhausted from the long continuance of the short and fruitless pains. An opiate was given, and more nourishing diet allowed.

16th. The pains are now more protracted, and attended with a slight sense of bearing down. On examination, the head was found presenting through the thick membranous adhesion of the vagina, which is exceedingly painful. At four P.M. the head was still resting on the obstruction: the pains were short, and the bearing down inconsiderable. At seven P.M. the head was suddenly protruded, though there had not been much increase of pain, and she was delivered of a still-born male child. Whether the adhesions were rup-

tured or dilated was not ascertained, as the expulsion of the head took place during the absence of Mr. Prout, the gentleman attending her, to whom I am indebted for the report of the case.

She recovered well, and was seen by Mr. Prout for several weeks afterwards, but refused to have any means used to effect the dilatation of the part.

Cases of this kind sometimes occur from inattention to the parts after the use of instruments, and sometimes even after a severe natural labour.

To the Editor of the Medical Quarterly Review.

SIR: Not being aware that colchicum has ever been used as the principal remedial agent in the treatment of erysipelas, I am induced, through the medium of your excellent work, to communicate to the profession the result of some cases so treated, that have come under my actual observation. Its mode of action is the question; its efficacy is indubitable. The relief derived from colchicum in rheumatic and gouty affections is generally accompanied with nausea, sometimes vomiting, griping, and a copious and frequent discharge from the bowels. Such, however, is not invariably the case, as many of the most rapidly decisive cases of the two latter affections terminating successfully that I have witnessed have been wholly unattended by any symptom of the kind. How then is its action in erysipelas to be accounted for? In my opinion, principally through the medium of the arterial system; and for the following reason.

I have upon all occasions observed the subsidence of erysipelatous inflammation accompanied by an equal diminution in the force and frequency of the pulse, which becomes soft and regular, without any jerking or intermission whatever. Such being the case, I can readily conceive why, the heart's action being subdued, a proportionably small quantity of blood is propelled into the capillary arteries, and a relative diminution in the cuticular inflammation is the result.

Bleeding has also been recommended and practised by many of the most eminent men in our profession in the acute inflammatory stage, and acts in the same manner as colchicum by lessening the vascular excitement, while the latter possesses a peculiar influence in controlling the most violent disturbance of the arterial system, without at the same time encroaching on the restorative powers of the system; the former in accomplishing this purpose produces a tendency to a train of low typhoid symptoms, from which it is often impossible to

rescue the patient, even with the aid of external heat and the exhibition of internal diffusible stimuli; consequently, it becomes a great desideratum to know by what means we can safely combat the intense burning heat, redness, pain, tumefaction and inflammation supervening on an attack of erysipelas without incurring the risk of running into the consecutive typhoid stage; and this object can be safely and surely obtained, I have no hesitation in saying, by administering colchicum in properly regulated doses. In confirmation of these views, I will now lay before you the cases before alluded to.

R. Berry, ætat. twenty-eight, admitted November 21, 1833, with rheumatism. On the 22d his scrotum became very highly inflamed, œdematous, and enlarged to the size of a child's head. He had been previously well purged. Several veins in the scrotum were opened with a lancet, and bled freely into a warm linseed-meal poultice.

23d. Swelling of scrotum very much increased, erysipelatos inflammation extending down both thighs up over the abdomen and left side of the face and neck; skin of a scarlet or crimson hue; smart burning heat; pulse 140; tongue dry and very white; bowels open; great thirst.

Four P.M. R. Pulv. Colchici, gr. xv.; Sodæ Carbon. ʒi. M. ut ft. pulv. statim. sumendus.

In about a quarter of an hour, the frequency of pulse, redness, and burning heat of skin very sensibly diminished, and the patient at the same time said that he was cooler and much more comfortable. At the expiration of an hour, the heat and crimson hue of the skin, the frequency and fulness of pulse augmented considerably.

Five P.M. Pulv. Colchici gr. x.; Sodæ Carbon. ʒij.; M. ut ft. pulv. statim. sumendus.

This dose was followed by effects as beneficial, but more lasting, the efflorescence and other symptoms not recurring so rapidly or in so aggravated a form. It was necessary to repeat the last powder at seven o'clock. This had the desired effect of thoroughly subduing the frequency and fulness of the pulse, the heat and redness of the skin, and swelling of the scrotum.

These large and frequently repeated doses of colchicum so rapidly and decidedly reduced the action of the pulse, that it became an imperative duty to watch its effects with the most scrutinizing attention, and delay the exhibition of another dose till a tolerably well established reaction took place. To watch the ebb and flow of symptoms between the intervals of giving the colchicum was both highly interesting and satis-

factory; for, in the short space of five or six hours, the patient was restored to a perfect state of health.

25th. The swelling, together with the redness of the scrotum and face, had nearly subsided, the skin was cool, tongue clean, pulse eighty, soft. R. Acid Hydrocyanici dil. m. ij.; Vin. Colchici, m. xv.; Aquæ \bar{z} i.; M. ut ft. haustus, tertiis horis sumendus.

On the morning of the 26th not a vestige of erysipelas remained.

II. Charles Mace, æt. nineteen, admitted November 29th, with great determination of blood to the head, and generally plethoric habit, was much relieved by active purgative medicines. December 9th, complains of sore throat; face much flushed.

Dec. 10th. Much pain, great tumefaction, and high erysipelatous blush over the nose and round the orbits; had but very little sleep the night previous, owing to the burning heat of his face. Pulse 108, tongue furred, bowels open from previous medicine.—The face was covered with flour. VS. \bar{z} xij. Vin. Sem. Colchici, \bar{z} ij.; Sodæ Carb. \bar{z} ss.; P. Rhæi, \bar{z} ss.; Mist. Camph. \bar{z} vij. \bar{z} j. ter die.

11th. Erysipelas spreading; pulse ninety-four, hard. The blood was cupped.—Rep. mist. quartis horis.

12th. The tumefaction was so much increased, that the palpebræ are nearly closed; heat of face much increased; pulse ninety-six.—Omitt. mist. Sodæ Carb. \bar{z} i.; P. Colch. gr. v. quartis horis.

13th. Erysipelas is receding from the nose and eyes, but spreading over the cheeks; pulse ninety, soft.—Rept. pulv. secundis horis. Hirudines xij.

14th. Efflorescence is disappearing fast; pulse ninety-two, soft.—Sodæ Carb. et Acid. Tart. in statu effervesc. p. r. n.

16th. The erysipelas is disappearing very fast; pulse ninety, soft.—Omitt. Pulv. Colchici.

17th. Quite free from erysipelas; pulse ninety-six, soft; skin dry.—Baln. tepid. Port wine \bar{z} iv., mutton chop daily.

19. Continue chop and wine. Dec. Cinch. \bar{z} j. ter die.

24. Omitt. Vin. Lusitan. Two pints of porter daily. Quin. Sulph., Ferri Sulph. aa gr. xvj.; Acid. Sulph. d. \bar{z} j.; Mist. Camph. \bar{z} vij. \bar{z} j. ter die. He only complains of weakness.

30th. Dismissed, perfectly well.

III. October 23d. David Simmons, æt. thirty-seven, an emaciated and feeble subject, was admitted for ascites.

December 21st. An erysipelalous inflammation appeared over the whole abdomen, in addition to his dropsy, which remained unrelieved. Pulse 124.—P. Colch. gr. v.; Sodæ Carb. gr. xv. quartis horis.

22d. Sore throat better; efflorescence extending down the inside of both thighs; pulse 136, small; tongue furred; much thirst.

24th. Erysipelas has entirely left the abdomen. Omitt. Pulv. Colchici. Pulse 120, soft; bowels freely open.—Vin. Ant. Tart. ʒss.; Liq. Ammon. Acet. ʒij.; Mist. Camph. ʒij. ʒj. quartis horis.

On the 27th, the erysipelas returned with great redness, tumefaction, heat, and pain over the whole face, particularly round the eyes and nose; bowels confined.—Calomel. gr. v.; Ext. Coloc. gr. x. statim. Haust. Cath. post duas horas.—Pulse 136, feeble.

28th. Erysipelas has spread over the whole face, the palpebræ being particularly swollen and painful; great heat of skin.—Baln. tepid. Vin. Colch. ʒij.; Vin. Ant. Tart. ʒss.; Mist. Camph. ʒviijss. ʒj. quartis horis.

29th. The erysipelalous blush is fading fast; pulse 128, small; tongue very red, but clean; bowels regular.

31st. Omitt. Mist. Colch. He was ordered to take Ammon. Carb. in excess, with Acid. Tart. in effervescence, secundis horis.

January 1st. Free from erysipelas; pulse 130; tongue clean, and red; bowels open.

It is worthy of remark, that the dropsy obstinately resisted, both before and after the attack of erysipelas, the most powerful diuretics and hydragogues that could be exhibited, viz. squills, digitalis, dec. pyrolæ umbellatæ, elaterium, potas. supertart., and many others. He is now fast recovering from the application of a large blister covering the whole abdominal region. He has now his third blister on, and is amazingly improved; in fact, quite well.

IV. John Sergeant, æt. thirty, a poor, emaciated, phthisical patient, was admitted, December 8th, with a cough of six months' standing, and thick, greenish, muco-purulent expectoration. After being in the hospital a few days, a very large cavity was discovered in the right subclavian region.

January 7th. After complaining of sore-throat, the upper part of his face became the seat of violent erysipelalous inflammation; pulse 110, hard; bowels open; tongue very dry.

—Haust. Effervescens. p. r. n. P. Colchici, gr. v.; Sodæ Carbon. gr. xv. quartis horis.

8th. Erysipelas extending over the whole face and scalp; palpebræ particularly swollen, and immoveably closed.—Pt. pulv.

9th. Pulse 128, soft and full. Erysipelas is fading. The bowels being much purged, he was ordered to omit the colchicum, and take an excess of Ammon. with Tart. Acid. and Tr. Opii, m. x. in a state of effervescence, secundis horis.

11th. Much better; appetite improving; pulse 102.

13th. Only complains of the eyelids being stiff; in the right a slight sloughing took place.

He left on the 24th, under the fallacious hope of getting well, but died from phthisis only a few days after.

v. Robert Sutton, æt. fifty, admitted December 10th, 1833, with an eruption extending over the cheeks and ears.

January 1st. Erysipelas on the left cheek and ear. On the 2d and 3d, it spread over the whole of the head, face, neck, and upper part of the thorax, the eyelids being greatly distended, exquisitely tender, and inflamed; skin very hot and dry; tongue furred; great thirst; pulse varying from 104 to 114, hard and full.—Calomel. gr. iij.; Pulv. Jalap. gr. xij. statim. Vin. Colchici, m. xv.; Vin. Ant. Tart. ʒss.; Aquæ, ʒj. secundis horis.

This medicine was continued till the 7th, with warm bath daily, and occasionally giving a small quantity of brandy; the frequency of the pulse, as well as the state of the erysipelas, fluctuating from time to time.

7th. Erysipelas has subsided; pulse 110, weak; skin cool; slightly delirious.—R. Liq. Ammon. Acet. ʒiij.; Inf. Sennæ, ʒv. sumat ʒj. quartis horis. Cont. baln. tepid.

He obstinately refused to take either his medicine or food with any regularity, and was attacked with very slight patches of erratic erysipelas, till the 15th. Pulse feeble; tongue dry; bowels open; slight pain in the head at times.—Quin. Sulph. gr. ij.; Inf. Rosæ, ʒj. quartis horis. Wine and porter daily.

23d. Four P.M. The erysipelas has returned with increased violence, the whole of the head and face being enormously swollen, red, and œdematous.—Pulv. Colch. gr. x.; Sodæ Carb. ʒij. statim.

Six P.M. Very much relieved; swelling subsiding rapidly.—Vin. Colch. m. xv.; Mist. Camph. ʒj. quartis horis.

Eleven P.M. Cont. Vin. Colch. sextis horis.

24th. Eight A.M. Pulse feeble. The erysipelas has en-

tirely disappeared, and the patient is sinking. He refused to take brandy, or any other stimulus, and expired at twelve o'clock.

Post-mortem examination, forty-eight hours after death. The cellular membrane occupying the whole surface of the occipito-frontalis muscle was infiltrated with serum; a great quantity of which was also found between the membranes of the brain, which was slightly congested. The liver was of a nutmeg colour, and easily broken between the thumb and finger.

This is the only unsuccessful case I have yet seen treated with colchicum out of a great number, besides those recorded above.

I remain, sir, yours respectfully,

JOHN BULLOCK,
Apothecary.

Westminster Hospital.

COLLECTANEA.

PATHOLOGY AND PRACTICE.

ON THE APPLICATION OF THE TOURNIQUET IN PARALYSIS.

WE have been favoured with a communication by Mr. Valentine, of Somerton, who informs us that he has employed the tourniquet with success in a case of paralysis. He was induced to do so, by an account of its beneficial effects in the hands of Dr. Calhoun, of Philadelphia, which he found in the *Medico-Chirurgical Review*. We subjoin Mr. Valentine's case, which is certainly a very interesting one.

Mary Dampier, æt. forty, far advanced in her first pregnancy, fell down in a fit of apoplexy, on the 19th of November last. Sense and motion were lost for two hours, when she recovered in a great degree, but had still some remaining vertigo and inclination to sleep, the mouth being also drawn to one side, and the left arm paralysed. She was bled, leeches, blistered, and mercurialized; under which treatment all the symptoms were removed, except the paralysis of the arm and hand; for which she was directed to use friction with the *linim. volat.*, which produced scarcely any benefit.

Having met with some observations on the use of the tourniquet in paralytic affections, I resolved on giving it a trial. All medicines and applications being discontinued, it was first applied on the 9th of December, as high in the arm as possible, for about twenty minutes: the effect it produced was surprising, the power of raising the limb being immediately increased on removing the tourniquet. The same plan was adopted daily till January 1, sometimes twice and three times a day, each application lasting from fifteen to

twenty minutes. The motion of the whole extremity by that time was fully restored. The only immediate effects of the tourniquet were an increase of power and a greater sensation of heat. No alteration in the pulse was detected either before or after each application of the instrument. The poor woman was safely delivered on the 2d of January, and is able to dress and take care of her child.

CASE IN WHICH THE OS UTERI WAS NEARLY OBLITERATED.

Mr. Wm. Taylor, of Stamford street, has obligingly favoured us with the details of a very remarkable case which lately occurred in his practice.

Mrs. —, æt. thirty-five, was taken in labour, February 1st, 1834. She had been married nine years, and had never borne a living child, but was said to have miscarried once, though the facts to be subsequently narrated seem to render this improbable. Mr. Taylor made an examination, but no os uteri was to be felt. The rigidity of the external parts, and other reasons, induced him to abstract twenty ounces of blood, and he also gave the patient an ounce of castor oil. The bowels were opened, and the head of the child continued to descend; but, as matters were still in a very unsatisfactory state, Mr. Taylor deemed it prudent to call Dr. Blundell into consultation. This eminent accoucheur being likewise unable to discover any os uteri, it was determined to make an incision into the uterus.

The patient being brought to the foot of the bed, with the legs drawn up towards the abdomen, an exceedingly small opening into the uterus was discovered, just large enough to admit the point of the finest probe. "A longitudinal incision was made from the symphysis to the rectum, and then a crucial incision, as extensive as the parts would admit." No hemorrhage followed. The pains naturally slackened from the alarm of the patient, and the ergot of rye was administered in large doses. The pains were increased in force, but were still incapable of expelling the fœtus, so that Mr. Taylor thought it necessary to open the head. The patient passed a good night, and every thing went on well till the fourth day, when she was attacked with peritonitis. It was easily subdued, however, and her recovery was perfect. The uterine discharge ceased at the end of three weeks. The catamenia have since appeared, and their flow has been unattended with pain, though Mrs. — had previously suffered from dysmenorrhœa in its acutest form.

CASE OF HYPOCHONDRIASIS.

I knew a gentleman who desired a medical man to send him some medicine to take, "for he had seven devils." The doctor said he did not like to take any man's word upon such a subject, and wished to investigate the case personally. He called on the patient, and having examined him, said, "Seven devils! you have eight, and the eighth is worse than all the others put together." It

was agreed between them that the doctor should adopt some means of driving out these devils; and the first was accordingly driven out by a slight electric shock, and the others in succession by shocks increased in power, till only the eighth devil remained; and then the doctor, to get rid of this troublesome guest, took care that the shock should be strong enough to knock the patient down, and he was entirely cured.—*Armstrong's Lectures.*

HYPOCHONDRIASIS IN MEDICAL PUPILS.

You will seldom be alarmed at hypochondriasis when it occurs in young subjects. I have, since I have lectured here, had the honour of curing some of the pupils of extraordinary dangerous organic diseases by very slight means. I have cured an aneurism of the aorta by a slight purgative; ossification of the heart by a little blue pill; and chronic disease of the brain by a little Epsom salts. You sometimes meet with such cases in private practice, and they are all cured by the removal of the bodily disorder or disease.—*Ibid.*

PARALYSIS OF ONE SIDE OF THE FACE.

January 11th, 1824, I was aroused at an early hour in the morning by an application to visit a female in labour, who lived at the foot of Blackstone-Edge, a distance of four or five miles from Rochdale, my then place of residence. The case being one of emergency, and being obliged to dress in haste, I merely wrapped a thin cravat around my neck, neglecting the other usual coverings. On my journey I was exposed to a cold sharp wind, from which I felt much chilled about the face and neck. After being in the house an hour the labour terminated, when I remained to partake of tea with the female attendants, during which some anecdote was related that excited laughter, when, to my great surprise, I suddenly felt a peculiar sensation, and a numbness, in the left side of my face. I immediately turned to a mirror, and to my dismay perceived the whole of that side drawn completely awry, and presenting a most ludicrous appearance. Prior to this attack I had enjoyed uninterrupted good health; age twenty-five, person spare, and habits strictly abstemious. For nearly two years the left angle of the mouth had so completely lost its power, as to render it difficult during mastication to retain the food when on that side. I was also incapable of perfectly closing the eyelids of the affected side. I used a variety of remedies suggested to me by professional friends, without benefit, excepting what I derived from simple friction, which I daily employed with the flesh-brush, and which I have every reason to believe was advantageous. Ten years have now elapsed since the attack, and I am perfectly recovered, having suffered the paralysis about eight years, without the slightest symptom of a relapse.

Reflecting on this case, I should say, that the cause was not dependent either on disease of the brain or the digestive organs;

but that it originated solely in an idiopathic affection of the portio dura, arising from exposure to cold.—*Mr. Rayner, in Lancet.*

EMPYEMA CURED BY AN OPERATION.

BY J. PANCOAST, M.D.

William Smith, aged twenty-two, a shoemaker by occupation, took a severe cold in the winter of 1828-9, which was attended with severe cough, painful respiration, pain in the left side, and all the ordinary symptoms of pleurisy. He was relieved by his physician of the most urgent of these symptoms, but still retained, throughout that season, a continued uneasiness in his side, occasionally aggravated when he was more exposed to the inclemencies of the weather. At this period he continued at his work, as is usual with shoemakers, in a heated stove room, not complaining much, but feeling occasional faintness and shortness of breath, and walking (as his family observed) with his left shoulder so much depressed as to give him a lop-sided appearance. The succeeding summer he spent among his friends in the country, alternately better and worse, unable to attend to business, and apparently suffering with pulmonary consumption.

The winter following, 1829-30, all the symptoms were aggravated; he was confined to the house and subjected to medical treatment, but without any amelioration of his sufferings.

About June, in the following summer, the dyspnœa and pain of the side were much aggravated. He grew unable to sustain even slight fatigue, and was obliged, after ascending a flight of stairs, to repose for some time on a bed. He was so little inclined to exertion, that the utmost importunities of his friends could scarcely, during the whole summer, persuade him out of sight of his own door. The hectic symptoms with which he had for some time been affected, were now fully confirmed. He had several flushes of fever during the day, and was usually bathed in a cold sweat at night. The soreness and pain of his side became concentrated in a spot, the size of a man's hand, between the tenth and eleventh ribs. Upon this spot, about the middle of July, he received a bruise, which was a little painful at the time, but soon overlooked. Shortly after this, an external tumour was developed, the size of a common saucer; this was poulticed under the direction of a physician, and burst suddenly in the month of August, discharging according to the account of the family, about half a gallon of greenish fetid pus, with filaments of coagulated lymph. Exhaustion and syncope followed, and for a day or two he was in a state of excessive debility. The pain and oppression previously felt was however much relieved by the discharge.

I saw him for the first time in September; his side, which then presented three small openings, still continued to discharge drops of very fetid matter. The oppression and dyspnœa had returned to a worse degree than ever, and his appetite, which had previously been tolerably good, now failed him. He could only sleep when

prompt up in bed, and inclined upon the diseased side, and then but for a short space of time. Besides, hectic fever and sweats were fast dissipating the little strength he had left. He had a ticking sensation in his head, for which he had been directed by a physician a short time before to be bled, but which afforded no relief.

Upon examining the thorax, the ribs of the left side were found much sunken, measuring about an inch and a half less from the spine to the sternum, than those of the other side. The lower angle of the scapula was very prominent, the spine incurvated, the shoulder sunken, the heart palpitating in the right half of the thorax, where it seemed to have been forced by some fluid in the left. The whole of the left half of the thorax, except a small part below the clavicle in front, sounded dull, and with the stethoscope no respiration could be heard on that side, except near the clavicle. The right lung upon auscultation appeared healthy, but more resonant than usual, in consequence of the increased duty it had to perform from the useless condition of the other lung.

The symptoms of the case, connected with the fact of the previous discharge of purulent matter, left no doubt of a large accumulation of some similar fluid. The patient was nearly exhausted by the length and obstinacy of the affection, and therefore, to prolong his life even for a short time, it seemed necessary to resort to some means of removing the secretion.

Pus, when thus collected in the chest, unlike the serous effusions, is scarcely ever removed by absorption. The successive increase of the fluid reacts upon the membrane which forms it, and thus keeps up a perpetual irritation and a perpetual flow. If not withdrawn from the body, it compresses the lungs against the mediastinum, and destroys the patient by suffocation, or wears him out by the irritation.

Nature in some instances makes an effort for its discharge. An opening may be formed by ulceration through the pleura pulmonalis into one of the bronchia of the lung, and the matter be discharged by expectoration. In such cases, though relief for the moment is attained, the air in respiration makes its way into the cavity of the chest, becomes a new cause of irritation by its oxygen acting upon the pus, and in a short time the patient dies.

Another process of nature, and which is sometimes attended by success, is a tendency to point or form an opening externally through the parietes of the chest. This process has been imitated by the hand of art, making an incision through the walls and discharging the fluid. But the air is apt here to pass in at the external wound and take the place of the secretion, and thus keep up an irritation, which, in the course of a month or two, usually destroys the patient.

Dupuytren has asserted, that out of more than fifty cases in which he had operated, he could quote but two instances of success; and Sir Astley Cooper, that he had never observed one.

Dupuytren has subsequently pursued a different plan, and which

has proved much more successful. An analogous course has also been pursued by Baron Larrey. Its merit consists in an evacuation of the fluid without the introduction of air. This is done by the skin being first drawn upwards, and a trochar then pushed into the cavity, the fluid evacuated, and the skin allowed to take its natural position, and thus to close the opening. In this manner the operation is to be repeated at intervals of several days, as long as the fluid continued to accumulate.

In reflecting upon this case, it was evident that nature had done all that she could do towards the recovery of the patient, in giving the matter an external direction, and having caused a copious discharge. An operation now seemed required. It appeared to me, that even in the present emaciated and exhausted state of the patient, the chances of the patient's recovery was still probable, if the matter could be discharged without the introduction of air. The sinuses which had been left since the discharge in August, were found on probing to be very sinuous, and though they must have communicated with the internal abscess, a slow stillicidium of pus took place through them, and appeared to prevent the passage of air inwards. I therefore determined, in preference to Dupuytren's plan of repeated tapping, to imitate nature, by making a valvular incision into the cavity, and keeping it open by the frequent introduction of a catheter in an oblique direction. By this means I should be enabled to evacuate the fluid as it was secreted, and thus, by preventing distention again, allow the diaphragm a better chance to ascend, the lung to expand, and the ribs to fall inwards, so as to diminish the cavity of the abscess.

On the 27th of September, with the assistance of my friend, Dr. Condie, I made an incision in the middle of the space between the tenth and eleventh ribs, down to the pleura, and through this, which was covered on its inner surface with a thick coat of false membrane, a female catheter was pushed. About two quarts of pus with some odour was discharged in jets synchronous with the pulsations of the heart. The wound was then carefully closed, covered with a large piece of adhesive plaster and a compress, and the whole surrounded with a roller bandage. The patient was directed an infusion of bark and snakeroot, and the use of weak wine whey. The laborious breathing and the extreme general anxiety was immediately relieved. No faintness occurred from the discharges. In the course of a day or two the appetite was improved, the hectic symptoms much diminished, and natural slumber returned; at first daily, and subsequently at intervals of two and three days. I introduced a female catheter from the bottom of the wound obliquely upwards, to discharge the secretion, which usually amounted to from two to three gills. On the fourth day after the operation the heart had nearly resumed its natural position, and I discovered by the stethoscope that air penetrated into the lungs two or three inches below the clavicle. When the stethoscope was applied upon that side near the spine, the voice of the patient when

he spoke appeared to come with great force through the tube, indicating that there was still within a large unoccupied cavity.

December 4th. Saw him again with Dr. Condie, every way improved; no night sweats; sleeps well; feels no pain; breathes easy. Introduced catheter again, and took away half a pint of bland serous pus. Heart regained its natural position. By the stethoscope, we discovered that air now passed down the left lung for four or five inches below the clavicle. When the stethoscope was placed close to the spine, any where opposite the thorax, a faint sound like the tintement metallique was occasionally heard. It was also heard at times two or three inches below the outer margin of the clavicle. This at one time gave rise to the opinion that there was a fistulous communication between the lungs and the cavity of the pleura. It was more probably owing to the plastic matter covering the pleura giving way during the partial expansion of the lung. Broncophony very strong below the clavicle; and during respiration there was occasionally heard a sound down the spine like the bleating of a goat, (ægophony.)

7th. The weather had suddenly changed, and the patient had been exposed to currents of air; countenance paler; spirits sunk; pulse small, palpitation of the heart heard more distinctly than before all over the left chest. Respiration much less distinct in left lung than at last visit. Introduced a gum elastic catheter, as the canal had become too winding for the silver, and took away half a pint of fluid, same colour and consistence as before. Directed the patient to be placed in a warm stove room, to be more warmly clad, to have his chest well rubbed with a strong liniment, and to take his tonic medicine more freely.

10th. Patient much improved; rests better; but has had considerable night sweats; respiration could now be heard in the left lung six inches below the clavicle, and down the whole length of the back; removed about half a pint of thin puruloid secretion. No pain on the introduction of the catheter. From this period he continued regularly to improve; the lung slowly expanding, and the quantity of secretion becoming less and less; care was taken to keep the orifice open, and a small catheter was introduced once a week, by twisting it through the winding canal into the cavity of the chest. The amount taken away was usually about a gill. Whenever a cold change of weather ensued, or the patient was more than usually exposed, the quantity was increased. The following June he was exposed to a shower of rain, and suffered from an attack of catarrh, to which affection he had for some time seemed very much disposed. While this lasted, the discharge consisted of thick bland pus, about three gills of which were evacuated every four days.

Counter-irritation was continually kept up upon the chest. After the tartar emetic eruption had disappeared, blister plasters were applied alternately to the back and front of the chest. Tonic

remedies were continued. The patient walked and rode every day when the weather would permit.

July 1st. Examined him very attentively again with the stethoscope and pleximeter. Both indicated the presence of fluid at the bottom of the left pleural cavity. A mucous rhonchus was heard in the left chest like that of catarrh; and at the end of every inspiration, and sometimes in the middle, a sound like that of *ek*, pronounced in a strong inspiration. The left shoulder was considerably sunken; the spine was considerably curved with the convexity to the right side. The left side of the chest measured one and a half inch less than the right.

During the latter period of the treatment, when, from the development of the lung, rising of the diaphragm, and the reoccupation of its proper position by the heart, the superficies of the abscess was much diminished, I tried the measure advised in such cases by Dr. Cartwright, of Natches, to avoid the trouble and pain arising from the frequent partial introduction of the catheter, to prevent the sinus closing its whole length. This measure consists in the introduction of a bent wire into the cavity of the abscess, to act as a sort of syphon, by producing a discharge guttatim of the matter within. I found it difficult with it to exclude the air; it appeared also to irritate the lining membrane; and I was obliged to abandon it, and trust to the former mode, which had proved successful.

From this period the patient continued to improve. In the autumn, a year after he came under my care, he was able to resume his occupation. The sero-purulent secretion however still continued to form for near a year longer, and the patient's mother was in the habit every week or ten days, of introducing a catheter, and evacuating it to the amount of three or four ounces. As the amount decreased considerably, the canal for the first time was allowed to heal throughout its whole extent, for the first time, in August, 1831. At the present time the patient is in the enjoyment of as good health, and nearly as able to undergo fatigue, as at any previous portion of his life.

The gratifying results of the treatment of this case of empyema, a result so seldom met with when paracentesis thoracis is performed, appears due in part to the youth of the patient, and to the recuperative efforts which nature had already made, in effecting a discharge externally. But a great deal still appears to be owing to the valvular opening which was made, and kept open for so long a period, by which we were enabled to keep the secretions from accumulating in the chest, and thus allowing the walls of the immense abscess to approach each other, and finally to obliterate the cavity. In the numberless introductions of the catheter, a single bubble or two of air was the most ever allowed to enter, and then at the moment of its withdrawal. I note this case, in hopes that this process may be thought worthy of a trial by some more experienced hand.

A case of abscess of the chest, of some interest, occurred a few years ago in the upper part of this state, in the practice of a medical

friend, and was cured in a way somewhat unique, which would seem to make it worthy of recital.

A man was seized with some affection within the thoracic cavity, which resisted the prescriptive treatment of his physician. The stethoscope at that period had not come into general use, and the case was so ambiguous, that its character was not revealed by its symptoms. The patient and his friends entertained the opinion that he was labouring under pulmonary consumption. No swelling, no discoloration, existed externally upon the thorax; but the patient, from the internal sensation produced by the disease, had a settled conviction that there was a gathering within. Taking a seat by an unfrequented side of the house, he plunged the blade of his penknife opposite the seat of pain between the ribs. He was found with pus flowing from the wound; a large quantity was discharged from the narrow wound. From that time his symptoms were relieved, and the patient finally recovered.—*American Journal of the Med. Sciences.*

CHOREA SANCTI VITI.

Since my former communication in your journal on this disease, I have treated another case of it. A brother, aged seventeen, of the young lady whose case is there described, was attacked May 20th, 1832, in one side. His health was perfectly good, and no clue as to the seat of the latent irritation causing the disease could be ascertained. Without administering even a cathartic, or any other medicine, he was put on the use of the pulverised root of the *Actea racemosa*, a teaspoonful three times a day. He was getting worse from day to day before commencing the use of it, but it appeared to arrest its progress almost at once. After using it only two days he was visibly benefited, and was entirely cured in five days. He remains well, and no one of those formerly treated with it have had any return.—*Ibid.*

LITHOTOMY IN ITALY.

It appears, from a table of the results of lithotomy at Naples, that the mortality from this operation in the hospital is 1 in 7; but that, in private practice, in the skilful hands of Petruni, Santoro, &c., the deaths are only 1 in 20, or even 1 in 25. This is very different from the results in Paris, where, if M. Civiale is correct, 4 are lost out of 10. M. Dupuytren, wishing to know the reason of this extraordinary difference, was desirous of seeing the Italian surgeons operate. The clinical ward of surgery in the Naples hospital fortunately contained two persons suffering from calculus, and the director, Signor de Horatii, operated upon them before M. Dupuytren, but not following precisely the Neapolitan method; in one case he employed Scarpa's lithotome, as modified by Signor de Horatii himself, and in the other, Cheselden's knife.

The subject of the first operation was a countryman, aged forty, of a temperament compounded of the bilious and the sanguine; he

had begun to suffer from the stone six years before, but the pains had increased extremely for the last year. He was cut in Cheselden's manner; the stone was of a moderate size. There was neither fever nor reaction, nor any symptom of cystitis. When the account came away, he was regularly progressing towards a cure.

The patient in the second case was a sawyer, aged nineteen, of a sanguine temperament, who had been afflicted with stone since his childhood, and had suffered severely for six months. He had had ischuria, and hematuria, and several small stones had passed by the urethra. He was cut with a modification of Scarpa's cutting gorget, and a stone of moderate size was extracted. He passed three lumbrici the same day, and in the evening there was considerable fever; some symptoms of cystitis afterwards appeared, which were kept down by baths. At the end of a week there was not a bad symptom, and his cure was proceeding quite regularly.

Cheselden's method is well known, but we will just say a word of the plan adopted in the second case. The external incision having been made just as in the lateral operation properly so called, the membranous portion of the urethra was exposed immediately above the bulb, for the space of four or five lines. The operator then holding the catheter perpendicularly in his left hand, and having the gorget in his right, introduced the beak of the latter into the groove of the former, pushed the gorget as far as the *cul-de-sac* of the groove, and then thrusting it forwards and upwards, penetrated the bladder. By this method the isthmus of the prostate is entirely divided above, and the *veru montanum* perpendicularly; a line and a half of the bladder being cut at the same time. The catheter being then withdrawn, the forceps are introduced along the concavity of the gorget, and the gorget is withdrawn with the right hand in the same direction.

These two operations were performed with the hand of a master, and M. Dupuytren loudly testified his satisfaction at the skill shown by the operator. It is clear that the plan adopted by M. de Horatiis is a modification of the method proposed by Thompson in 1808, and by M. Dupuytren himself in 1816. It has the great advantage of avoiding both the rectum and the pudic artery. Nevertheless there are inconveniences attending it, which have caused its disuse both in France and England.

But M. Dupuytren was particularly desirous of seeing the Neapolitan method, properly so called, put into practice by Santoro and Petrunti, in whose hands it is extremely successful. As there was no opportunity of operating on the living subject, Professor Santoro demonstrated this operation on the dead body. This was done publicly in the anatomical amphitheatre of the Cavalier Nanula, at San Francesco, in presence of M. Dupuytren, a number of Neapolitan professors, and a great concourse of pupils. The Neapolitan method consists in cutting obliquely (as Moreau did), and in giving the incision the form of two triangles, the base of the interior one being at the neck of the bladder and of the external

one at the incision of the integuments; the apices of the two triangles meeting in the space which separates the perineum from the neck of the bladder. An oblique incision is therefore made from the raphe to the ischium, and by cutting down upon the catheter in the membranous part of the urethra, the external triangle is completed. The handle of the catheter is then to be depressed with the left hand, and the lithotome is plunged by the right hand obliquely upwards, and from left to right, following the grooves of the catheter; and when it reaches the bladder the neck of the bladder and the prostate are cut, completing the internal triangle.

The French professor having observed the simplicity of the operation with obvious marks of satisfaction, declared that at Paris the lateral operation was performed exactly in the same way as at Naples, and therefore that he had no objection to make, but that he had some questions to ask. 1st. How is it that, with the same method of operating, the proportion of fatal cases is so different at Paris and Naples? Professor Santoro answered, that the chief reasons are two in number; the difference of the climate, and the time of year chosen for the operation. The climate of Paris is much colder than that of Naples, and not only predisposes persons to inflammatory reaction, but develops it with great rapidity after operations attended with loss of blood. Moreover, from the coldness of the climate, inflammations of the bladder being more frequent, this organ becomes the seat of a chronic morbid diathesis, which is increased by the presence of the stone, and makes the development of inflammation after lithotomy more likely. As to the season chosen for the operation at Naples, excepting circumstances are urgent, lithotomy is performed only in spring and autumn, when, from the temperature, it is improbable that any atmospheric influence will affect the results of the operation; while at Paris surgeons operate at all times, even in the heart of the winter.

M. Dupuytren was satisfied with this answer, and said that he was of the same opinion, and was inclined to introduce this method of selecting the time of year at the Hôtel Dieu at Paris.

His second question was, What are the circumstances which most usually are the cause of death in patients at Naples? Professor Santoro answered: Death is never caused by hemorrhage, as every artery of any considerable calibre is avoided in the operation; but it generally arises from inflammation and suppuration of the kidneys, when they are already affected before the operation; sometimes, but rarely, from inflammation of the urinary passages, or the peritoneum; lastly, there have been years when those who have undergone lithotomy in the hospital have been attacked with gastric verminous fever, prevailing epidemically. As for myself, added the professor, I have never lost a patient when the operation has been performed as I wished: I have merely lost a few of those in whom, from some unforeseen accident, the steps of the operation were neither easy nor regular.

M. Dupuytren then observed, that the causes of death at Paris were the following ones, in the order of their frequency:

1st. Inflammation of the cellular tissue of the pelvis;

2dly. Inflammation of the urinary passages;

3dly. Peritonitis;

4thly. Gastro-enteritis.

As to the influence of the gastro-verminous epidemic, his opinion was, that gastric fevers were themselves a consequence of the operation; and that the presence of worms, which often occurs in similar cases, is merely a complication.

Professor Santoro replied, that, in the climate of Naples, gastric fevers are very common, and often put on an epidemic character. Thus, in the years 1827 and 1830, when this morbid complication caused the death of a number of patients operated on in the lithotomic ward, the whole town was full of these fever cases, and only a small minority of the population escaped the disease.

M. Dupuytren, then entering into details, remarked, that the inhabitants of Paris, having to bear a temperature which was often below the freezing point, became more accustomed to cold, and therefore suffered less from its effects; while the inhabitants of Naples, being subject to continual atmospherical vicissitudes, must suffer from their deleterious influence. Thus, for instance, the smallest depression of temperature being sufficient to affect them, and make them take to their cloaks and great coats, this excessive susceptibility would make them feel more intensely the effects of an operation.

M. de Renzi undertook to answer this. It was not necessary, he said, to recall to so eminent a surgeon the physiological and pathological theory, that cold predisposes persons to inflammatory diseases by keeping up a certain irritability of the vascular system; while hot climates, on the contrary, produce a nervous irritability. Moreover, in a hot climate, the cutaneous system, being in continual activity, is more excitable, and more disposed to be affected by heat and cold. These circumstances, therefore, make the inhabitants of hot climates more susceptible of the vicissitudes of the air, and particularly of cold; but the cold is never sufficiently intense or lasting to produce in the system a permanent predisposition to inflammation. For these reasons, in summer, after some operations, particularly the one for strangulated hernia, tonic and clonic convulsions are more common than inflammations.

Here the discussion stopped.

Whatever opinion we may have on the minor points brought forward by either side, one important fact remains, if experience sanctions it among ourselves, namely, that the selection of the time and season has an immense influence on the mortality following stone operations, and probably many others also.

M. Dupuytren is at present at Rome, but is to return to Paris at the end of this month (March). We shall therefore soon have

the opportunity of seeing him put into practice the new ideas which have been suggested to him by his discussions with the surgeons of Italy.—*Gazette Médicale.*

CASES OF DISEASED NERVES.

Charles Holiday, æt. forty, from Kirkheaton, was admitted by Mr. Wilks on the 20th September. He looked stout and healthy, and complained of nothing but loss of power and sensation in his left upper extremity. It was greatly enlarged from the shoulder point to the finger ends, and possessed its natural colour and temperature. The muscles felt somewhat hard; and over the back of the carpus there existed a ganglion the size of half an orange; and on the front of the shoulder joint a large tense bag, apparently of a similar nature. From the great enlargement, the head of the humerus could not be felt, although it was clearly not in its proper site. He could move the limb a very little backwards and forwards, but not raise it up in the least. At the same time, it admitted of being raised over his head, and moved in all directions by others. Indeed, the roughest handling gave him no pain; and the natural points of the thumb and two adjoining fingers were as if sliced off, having been often burnt and otherwise injured, without his being aware of it. This loss of feeling had existed seven or eight years; and he attributed it to his having fallen asleep in the sitting posture, with his arm stretched out before him, and resting on its inner side on the back of a chair. How long he remained in this position he could not tell; but, when he awoke, the arm was numb, and remained so ever after. He could always, however, raise it up and use it until six days before his admission, when it suddenly became powerless in the reaping-field, and the hook which he at the time was using fell from his grasp. The swelling likewise only commenced from that period.

The tumour in front of the joint was tapped with a fine trocar, and a gill of colourless fluid drawn off. The humerus could then be readily reduced, but the weight of the arm immediately dislocated it again. The Tinct. Iodini was freely applied to the shoulder and arm, with the effect of greatly reducing the size; and he wore a bandage, so as to retain the limb in its proper place. At the end of his two months, it was found that the arm kept reduced when the bandage was removed; but still he had no command over it. In this state he left the hospital. About the end of January I again met with him. The arm was out of its place, and hung dangling by his side. It could not be kept reduced without the bandage, of which he had tired. The shoulder and arm were nearly of their natural size, but the fingers and whole hand remained stiff and swollen.

That the cause assigned by Holiday for his complaint was the true one, I can readily believe. The nerve, injured by the pressure against the back of the chair, had never recovered its functions; hence the loss of feeling. The dislocation, I am of opinion, took

place first in the reaping-field, when he lost all command over the limb; and the pressure of the head of the humerus, in its new situation upon the vessels in the axilla, will satisfactorily explain why the enlargement should commence at that period.

I remember attending a case of paralysis of the face, produced by a similar cause to that of Holiday's arm. It occurred in the spring of 1825, in a middle-aged gentleman, a patient of the late much-amented Mr. M'Gown of Skelmanthorpe. He had fallen asleep with the right side of his face resting upon the wooden arm of a sofa. When he awoke, he felt much pain about the ear, and over the right half of the face; and, in a few days, the mouth and cheek were greatly drawn over to the left side. He presented no other symptom of disease, and I had much satisfaction in assuring him that there was no cerebral mischief, but that the palsy depended upon an affection of the portio dura in front of the ear. With repeated leeching and blistering, the face slowly regained its former symmetry; and the gentleman is now in good health.—*Dr. Turnbull's Report of the Huddersfield Infirmary, in Ed. Med. and Surg. Journ. for January 1834.*

CASES OF DILATATION OF THE STOMACH.

Dilatation of the stomach, like that of the bladder or heart, may occur as a symptom of diseases of very different characters. In some of these the distention is produced mechanically, but in others its causes escape our research.

On the different lesions which accompany, or apparently give rise to, dilatation of the stomach. Its most common cause is schirrus of the pylorus, occasioning partial obliteration of its orifice. In these cases, where the food has been retained in large quantities, a portion will be vomited. Nevertheless, the stomach may be dilated either simply, without any other morbid appearance, or it may be accompanied by ramollissement and ulceration (proceeding in a few instances even to perforation,) of its parietes; and, in other cases, by hypertrophy of one or all its tunics. The dilatation in schirrus of the pylorus does not always arise from obliteration of the orifice, but will be found under other circumstances.

Case 1st. A man who had suffered from disorder of the digestive organs, attended by frequent vomiting, for eighteen years, at last died suddenly. The stomach was found uncommonly distended, reaching at least a hand's breadth below the umbilicus, and capable of containing twelve pints of fluid. The parietes were intimately adherent to the liver, being much attenuated at the upper and cardiac portion, but hypertrophied to a slight extent in the vicinity of the pylorus. (*Obs. Johannis Davidis Maucharti de Anatome ex Ventriculo vitio imprimis defuncti.*)

Here the adhesions of the liver, and the attenuation of the walls of the stomach, would of course favour the accumulation of food in its cavity. M. Mérat (*Journal Général de Med. Chir. Pharm.*) attributes this dilatation to the cessation of the action of the pylo-

rus, which he compares to the action of the ascending portion of the cæcum; but M. Duplay would rather attribute it to the extension of the disease to the submucous structure of the parietes of the stomach obstructing their action, than any obstruction of the pylorus, which can act only as a sphincter. In corroboration of this opinion reference is made to a case reported by Andral, in which the muscular fibres were destroyed to the extent of four fingers' breadth from the pylorus. When this part is the seat of schirrous induration, its action will be proportionately impeded. The following case exemplifies another cause of dilatation of the stomach, while the pylorus remains permeable.

CASE II. A woman, æt. twenty-three, suffering from constant vomiting and obstinate constipation, gradually wasted, and died in about nine months from the onset of the symptoms. On a post-mortem examination, the greater circle of the stomach was found to reach to the pubis; its internal mucous coat about the fundus was much softened, and the parietes were altogether much thinner than natural, especially the muscular tunic.

Here the dilatation of the stomach can only be referred to the tenuity and want of power of the muscular fibre.

From the preceding facts we may observe, that dilatation of the stomach may arise either from morbid adhesions impeding the muscular contraction, or destruction of the muscular fibre at that part where its action is most required, or atrophy of the whole muscular tunic. We can easily perceive that these different lesions may totally prevent the action of the stomach, and consequently that the substances introduced into its cavity may occasion its morbid distention.

Allusion is next made to several cases recorded by Lieutaud and Blancard, of sudden death attended by great dilatation of the stomach; but, as the account of these cases is extremely imperfect, but little information can be obtained from their perusal. One case, however, reported in the *Historia Anatomica Morborum*, deserves to be related.

CASE III. A man, æt. sixty-five, was admitted into La Charité, in the end of March, 1752, complaining of a sensation of weight and distention at the epigastrium, and constant nausea, with inability to vomit. He was also labouring under anasarca and ascites. After death, the stomach was discovered to be greatly dilated, the pylorus being perfectly healthy, but the rest of the alimentary canal preternaturally contracted.

CASE IV. A man, æt. fifty-four, came under the care of M. Rayer, with symptoms of hypertrophy of the heart, nausea, and occasional vomiting. He died in a few days afterwards, when the stomach was found to be greatly dilated, the pylorus and tunics remaining healthy. The only remarkable circumstance about the orifices of the stomach was, that they were both on the same level, instead of the cardiac extremity being considerably above the pyloric,

which alteration in the position, and the consequent difficulty of the contents of the stomach passing readily towards the pylorus on a plane no longer inclined, M. Duplay thinks may partially account for its dilatation. In such cases, however, where little or no morbid appearance is found, the author is inclined to believe that there exists a true paralysis of the viscus. Such were the opinions of Lieutaud and Chaupier, the latter of whom compares this dilatation not unaptly to the relaxed state of the scrotum in certain subjects.—*Abridged from the Archives Générales.*

CASE OF CONSTIPATION, SUCCESSFULLY TREATED BY THE
INTRODUCTION OF AIR INTO THE BOWELS.

BY GEORGE J. JANEWAY, M.D.

July 7th, evening, I was called to see H. M., who was attacked last evening with a severe pain in her abdomen, which continued the greater part of the night, and was relieved by laudanum and the application of a sinapism. She has had occurrences of the pain through the day. Two or three days ago, in consequence of imprudent exposure during her menstrual period, her menses were suddenly stopped. On the 5th inst. I had prescribed for her a bleeding, for an affection of the heart, under which she is labouring. She also took a dose of Epsom salt.

She now complains of severe pain around the navel, which is relieved by pressure; pulse full, hard, and frequent, such as is met with in hypertrophy of the heart; tongue moist, a little furred in the centre; skin of natural temperature; her cellular tissue is infiltrated with serum; abdomen somewhat swollen. Her pain was soon relieved by the exhibition of laudanum and ess. of peppermint; flannel wrung out in hot brandy and Cayenne pepper. Directed castor oil, ʒj.

July 8th. Her pain returned soon after I left her, and has continued. Her bowels are more swollen; pain as before; no pain on pressure in any part of abdomen; tongue, pulse, and skin as before. V. S. ʒxvj.; fomentations of hops; calomel, grs. xij.; oil four hours after. Her bowels have not been opened since the 6th.

Six, P. M. Bowels not open; vomiting occasionally; abdomen more tympanitic; pains more severe; respiration hurried and somewhat oppressed. Soda water; repeat calomel; injections of senna tea.

10th. Since the preceding date all the symptoms have gone on increasing in severity, for which I directed, at different visits, leeches and cups to abdomen, cups to small of back, injections of warm and cold water, emollient injections, calomel and senna tea, fomentations to abdomen, &c. all without success. Bowels are still confined, greatly distended with gas; pulse pretty much as before; tongue furred in centre and moist; skin nearly natural; breath excessively fetid, can be smelt at the distance of several feet; belches considerably; hiccup occasionally; vomits a dark, fetid, oily fluid; respiration frequent and oppressed; face pinched.

At this time I determined to try the effects of the introduction of air into the bowels. Accordingly I attached one end of a bladder to the tube of a bellows, while a clyster-pipe attached to the other end was introduced into the rectum. The bellows were used a few minutes; during their use a fetid gas escaped from the rectum, in such quantity as to be smelt in different parts of the room. Immediately after the removal of the bellows, the patient passed by stool a pint of very fetid, dark fluid, together with a considerable quantity of gas. She felt somewhat relieved. A short time after, the bellows were reapplied with similar effects. A drop of croton oil was then given, and another at the expiration of two hours; the bellows were used twice afterwards.

Evening. Patient is much relieved; has had six passages by stool since the morning; she passed at the same time great quantities of gas. From this time she speedily recovered from her bowel affections. Her stools did not become of a natural appearance till some days after.—*American Journal of the Med. Sciences.*

TREATMENT OF DROPSY.

You should in all cases investigate the cause, whether it be inflammation, plethora, obstruction to the return of blood, or some change in the blood, or whether the dropsy be encysted. It is in vain to prescribe for a symptom without reference to a cause. Books tell us that the treatment of dropsy is very simple. They tell us that there are two indications; one is to evacuate the fluid, and the other is to prevent the recurrence of it. All this is very true, but dropsy, as far as its cause and its treatment are concerned, is very different. Some forms of dropsy are remediable; those arising from inflammation generally are so.

1. If dropsy be connected with inflammation, the urine is scanty and high-coloured, and on boiling it, or adding to it nitric acid, it very often, but not always, deposits albumen. Other general symptoms will guide you, as hardness and frequency of the pulse, a furred tongue, and a hot skin towards night. Bleeding, purging, and a regulated diet, are to be adopted in these cases. In some strong subjects you may bleed largely, but in delicate patients you must abstract a moderate quantity of blood. Other medicines greatly assist you in these cases, as digitalis, squill, or calomel. Digitalis may be given in infusion, two drachms morning and evening, gradually increased to half an ounce, six drachms, or an ounce, twice a day. Of the tincture of digitalis ten drops may be given twice a day, gradually increasing the dose. In giving digitalis attend to the state of the pulse, of the stomach, and of the head. If there be retching, or giddiness, or if the pulse become small and slower, omit the digitalis. If it produce very alarming effects, give ammonia and wine, or opium and brandy. Squill, when recent, operates remarkably well. It often fails as a diuretic, because it is not good. Colchicum is another remedy which has very great efficacy. I generally give colchicum twice or three times

a day, with a purgative; it increases the flow of urine in inflammatory diseases very remarkably, and tends powerfully to carry off the inflammatory symptoms. When it occasions any degree of sickness, withdraw it immediately.

2. When obstruction to the return of the blood exists as the cause of dropsy, you must ascertain what is the condition upon which it depends, in order to know whether that condition is remediable. If it exist about the liver or bronchial linings, you may frequently relieve it: in the one case, by alteratives every second night, and daily purging by calomel, elaterium, or turpentine, with alkalies and a regulated diet; in the other, by purging, diaphoretics, and a regulated temperature. If the heart be obstructed, you must also attend to the liver: alteratives and purging, and moderate bloodletting, with a bland diet and rest, will be of great benefit. Sydenham was in the habit of giving emetics and nauseants in dropsy of the belly; they are seldom used now: but as ascites is often connected with torpor of the liver, when it arises from that cause, they may occasionally be employed with great advantage.

3. If the dropsy arise from repletion, and if that depend on a very large quantity of blood, you may bleed your patient, open his bowels, put him upon a moderate diet, and let him use a warm bath; and the dropsy disappears. Nauseants are sometimes productive of great advantage. If the repletion arise from the sudden absorption of a large quantity of water, use purgatives, the warm bath, and occasional alteratives, with rest, a spare diet, fresh air, and a regulated temperature.

4. Where it arises from some change in the blood, with laxity of the solids, you must endeavour to ascertain whether the affection from which that change is derived be a disorder or a disease. If it be a disorder of the stomach, liver, or bowels, as it often is, and you remove it by mild laxatives daily, mild alteratives every other night, fresh air, a bland diet, and bleeding or leeching, if requisite, the dropsy soon disappears. If there be organic disease, all that you can do generally is to palliate the disease. One palliative sometimes is the operation of tapping. Diuretics are sometimes useful.—*Armstrong's Lectures.*

ON THE CROWING INSPIRATION OF CHILDREN.

This important disease, which was described by Dr. John Clarke, under the name of "a peculiar species of convulsion in infant children," has lately been the subject of several papers by Dr. Hugh Ley, in the *Medical Gazette*; and, as these essays are evidently the fruit of sound and repeated observation, we think it right to present our readers with a few of the more prominent points contained in them.

Dr. Clarke thought that this convulsion, accompanied by an interruption of the respiration, necessarily depended on cerebral derangement, and the practice adopted in consequence by himself and his followers, has been in many cases far too violent.

Underwood, Capuron, North, and others, however, have combated the truth of this doctrine, and have shown that, although this disease may in some cases depend on cerebral turgescence of irritation, yet that it may also frequently exist without them.

This sonorous inspiration may depend on disease of the thoracic absorbent glands; a fact first pointed out by Dr. Merriman, who says, "in two cases of this kind, which were under my care nearly at the same time, the children died in the fits. They were both opened by Mr. Sweatman, a very skilful anatomist, but not the slightest appearance of cerebral affection could be discovered in either of them. The principal deranged structure discovered was a collection of small glandular swellings in the neck, pressing upon the par vagum." (*Note upon Underwood*, p. 140.) Dr. Hugh Ley, however, who is in possession of the preparations taken from these cases, affirms that it was the recurrent nerves which were chiefly injured, and that in one of them the left recurrent, as it turns round the arch of the aorta, is raised more than half an inch; moreover, it is flattened by this elongation, and is altered in texture, appearing withered. Dr. Hugh Ley believes that this disease of the absorbent glands, and this crowing inspiration, are connected together as cause and effect, and narrates the following cases in proof. In the first, the child, who had been supposed by a very eminent physician to be labouring under hydrocephalus, grew worse under a great variety of treatment, and at last died. Mr. Arnott opened the body: the cluster of glands at the root of the lungs, and about the arch of the aorta, were greatly diseased; one of them, as large as a middle-sized chesnut, being full of the matter which is produced by scrofulous inflammation, and another smaller one having imperfectly suppurated. With the exception of a slight enlargement of some of the mesenteric glands, there was no other disease in any part of the body. In the second case there were vomicae in the lungs, besides the enlarged glands, but the crowing inspiration had most probably depended on the latter.

Dr. Hugh Ley has also observed, that when these nerves are morbidly pressed upon, in their course upwards to their ultimate destination, namely, the muscles which move the arytænoid cartilages, a similar dyspnœa is produced. His final conclusion is, that the disease does not depend upon a spasm of the muscles which close the glottis, but rather on a paralysis of the muscles which open it.

Dr. Ley's treatment consists chiefly in tonics and gentle aperients; for quieting the cough he employs conium, or the hop, but prefers the latter; he also recommends the external application of an opiated liniment. He agrees with Mr. North in commending the frequent and effectual lancing of the gums, when these cases appear to depend on irregular dentition.

THERAPEUTIC EFFECTS OF CODEINE.

We learn from the *Gazette Médicale*, that Dr. Barbier has tried the medicinal effects of codeine, a new alkaloid derived from opium.

The dose is one or two grains, and he administers it in syrup. He is of opinion, that, although codeine, like all the preparations of opium, acts upon the nervous system, yet that it has but little effect upon the brain, and none at all upon the spinal marrow, but that all its energy is displayed upon the nervous plexuses of the great sympathetic. It is in the epigastric region that its power is manifested; it is in this centre of the ganglionic nerves, says Dr. Barbier, that we can best appreciate its value. It is given with advantage to patients suffering from pain extending from the epigastrium to the back, accompanied with a sensation of burning, uneasiness, depressed spirits, &c. Whether this disease be called gastralgia, or pain in the stomach, or chronic gastritis, or abdominal neurosis, its situation is certainly in the nervous plexuses, and depends upon a morbid state of them. Dr. Barbier has seen the syrup of codeine cure these pains, as well as the accompanying symptoms; the gaiety of the patients, and the ease with which they turned in their beds, forming a strong contrast with the state of oppression and anxiety to which they had been subjected for months, indeed, in the case of one female patient, for a year. Dr. Barbier had several patients under his care at the Hôtel Dieu at Amiens, who, besides the abdominal neurosis just mentioned, were afflicted with neuralgic pains in the head, loins, or thighs: in such cases the codeine relieved the pains and uneasiness in the epigastric region, but had no effect upon other parts. The patients who derived benefit from the use of codeine had generally taken the liquid laudanum of Sydenham previously, without advantage.

Codeine does not produce any apparent change in the circulation, or breathing; it does not disturb digestion, but it rather diminishes the appetite: it often causes an itching of the skin; finally, it does not cause constipation. Mr. Wm. Gregory's experiments on codeine do not coincide with these; but he employed the nitrate, and, according to M. Kunkel, codeine loses much of its efficacy when combined with acids. The discovery of this alkaloid is due to the researches of M. Robiquet.

MISCELLANEOUS.

LETTER FROM MR. MACILWAIN.

We have received the following letter from Mr. Macilwain:

To the Editor of the Medical Quarterly Review.

9, Argyll Place; January 15, 1834.

"Sir: My attention was yesterday directed by a pupil to your review of my "Observations on Porrigo," in which you transcribe a typographical error. As it materially affects the basis of your critique, and, what is of more consequence to me, renders the whole chapter unintelligible, I take the liberty of pointing it out to you. In the title of the chapter, for 'as they are *unconstitutionally*,' read 'as they are constitutionally.' I inclose a list of the errata; and remain, sir, your obedient servant,

"G. MACILWAIN."

Now, though we readily admit that this correction is an improvement, we unhesitatingly deny that the original error formed the basis of our critique. It was based on a greater error,—on the whole of Mr. Macilwain's first chapter, as any one may see, by turning to our review. In quoting this chapter we omitted the note: we give it now.

“The consideration of the whole of the diseases of the skin strongly supports this view of the subject: as examples, I may refer to the Exanthemata, Lichen, Strophulus, Prurigo, which are in the order which I have placed their illustrations of these observations.” (P. 7, *note*.)

The latter part of this sentence has no meaning; and, on referring to the list of errata with which the author has favoured us, we find, “Page 7, *note*, for ‘I have placed there,’ read ‘I have placed them.’” This correction still leaves the sentence in a state more fit for *Œdipus* than *Davus*; and, moreover, the curious reader will observe, that there is an erratum in the erratum, “there” being substituted for “their.” We think that authors deserve some little reproof even for typographical errors, when they make books unintelligible; but our objections to Mr. Macilwain's treatise were founded on our firm persuasion that it was essentially uninteresting. The plain truth is, that when a book intended for the public is examined by a professional man, the effect is like that which is produced by too near an approach to the gay illusions of the theatre: the spectator in the gallery thinks that he sees the enchanted bower of *Armida*, while the critic, on the third bench of the pit, can distinguish too clearly the coarse daubing and copper tinsel.

Our regret that Mr. Macilwain should have put forth a book like this, is increased by his being obviously capable of better things. The author of the paper on *Nævi*, in the last part of the *Medico-Chirurgical Transactions*, should not have written the “*Clinical Observations*.”

REGULATION OF MADHOUSES.

To the Honourable the Commons, &c. the Petition of Caleb Crowther, Physician, practising in Wakefield, humbly sheweth,

That your petitioner has, professionally, for many years attended the pauper lunatic asylum of this place, and that since he resigned the office of physician to that institution, he has visited a great number of madhouses and public hospitals, in different parts of the empire, with a view of comparing their respective merits and defects, and of forming a just estimate of the first principles necessary for the government of madhouses.

That your petitioner humbly prayeth your Honourable House to appoint a commission, during the present session of parliament, to examine, without exception, all the public and private asylums for the insane in the United Kingdom; and to compare their adminis-

tration with that of some of the best regulated hospitals and infirmaries.

That the infirmaries at Glasgow, Liverpool, Manchester, Birmingham, and Leeds, in the opinion of your petitioner, afford admirable specimens of hospital discipline.

That the Asylum at Glasgow, and the Retreat belonging to the Society of Friends, at York, afford the most favourable examples of a public and private madhouse which your petitioner has witnessed.

That although great improvement has been made in the management of madhouses during the last twenty years, your petitioner has reason to believe that great abuses, great negligence, and great licentiousness, still exist in some of them.

That the first principles necessary for improving the management of madhouses, are daily visitation, scientific governors, the admission of patients in the first stage of the disease, and regular employment for the convalescent insane.

That the superiority of our infirmaries has, with great justice, been ascribed to the assiduity of their daily visitors; who minutely examine the cleanliness and ventilation of the house, the quantity and quality of the food, the conduct and behaviour of all the officers, servants, and patients in the institution. Whatever is found amiss is recorded in a book, submitted to the inspection of a weekly board of governors.

That this system of visitation has been adopted at the asylum at Glasgow, and at the Retreat at York.

That, without the aid of such a system, the visits of governors once in three months will ever remain ineffective.

That, in the opinion of your petitioner, there exist in every part of the country benevolent beings of both sexes, who would accept and faithfully execute such a trust gratuitously.

That the governors of madhouses ought either to understand the moral and medical management of the insane, or, like a sensible jury, they ought to be guided by those who do understand the subject.

That the great errors committed by the visiting justices, in medical matters, at the Penitentiary at Milbank, at Coldbath-Fields prison, at the asylum and prison at Wakefield, and at the asylum at Hanwell, prove how unfit magistrates are to govern such institutions, and indicate the necessity, in this country, of the appointment of a minister of health. That magistrates do not understand when the insane are judiciously treated, and will not submit to the appointment of visitors, because they say that it will create *imperium in imperio*, and derogate from their power.

Your petitioner, therefore, begs permission to suggest to your Honourable House the propriety of putting all madhouses, both public and private, under the management and entire direction of a medical board, consisting of twelve persons; nine or ten of that number to be physicians, and the remainder civil engineers. Three

members of this board, two physicians and one civil engineer, to be required to visit four times a year, at irregular intervals, every asylum in the United Kingdom.

That correct reports of the history and treatment of every insane case be required to be transmitted monthly to this board, in London. That such reports would serve to stimulate the diligence, and to expose the neglect, of the medical attendants, and to improve and equalize the mode of treating the insane.

That, at each visit, the travelling physician ought to be required to examine every individual patient, and to ascertain the correctness of the reports transmitted to the board. Such a regulation would prevent the possibility of any insane patient being long unnecessarily confined. A report or summary of the practice in every asylum, both private and public, ought to be published annually by the medical board.

All the acts of the physicians and civil engineers ought to be done in public, except the visits of the physicians to the insane patients.

The business of the civil engineer will be, to examine whatever relates to the buildings, to the accounts, and to the domestic economy of the establishment.

That, at the first attack of the disease, the patient ought to be sent to an asylum, or privately put under proper restraint and suitable treatment, in order to prevent the disease from becoming incurable from injury done to the structure of the brain.

In the higher classes of society, as well as among the poor, the insane are frequently detained at home, in consequence of the fears, the ignorance, and the prejudices of their relations, and sometimes from the self-interest of the medical attendant, until the disease, from morbid organization, becomes incurable.

Your petitioner humbly submits to the consideration of parliament, whether or not a much larger fine ought to be imposed upon the rich, than what is now imposed, by the existing law, upon the overseers of the poor, who neglect to put their relations and friends under such restraint and medical treatment, as is essential for their safety and recovery. Your petitioner is, from ample experience, convinced that, after curing the bodily disease, incident upon the first attack of insanity, nothing contributes more towards removing the mental alienation, than employment suited to the circumstances and habits of the patient. The method of verifying this observation will be, to compare the number of patients cured in madhouses, placed under similar circumstances, where employment is extensively used, and where no recourse is had to it.

Your petitioner, therefore, most humbly prays that your Honourable House will adopt the measures herein suggested, or such other measures as may appear to your wisdom most efficacious, to secure to the insane judicious and humane treatment during confinement, and the most speedy restoration to their friends; and your petitioner will ever pray.

CALEB CROWTHER, M.D.

Med. Gazette.

[We cordially agree with the greater part of this well-written petition; but on two points we must enter our dissent. We do not, in the first place, see the absolute necessity of the physician's companion being a civil engineer; a barrister, clergyman, private gentleman, or sharp half-pay major, might in many instances be advantageously substituted. In the next place, we must solemnly protest against any one being fined for not sending his mad, eccentric, or strangely-behaving relations to an asylum. Suppose a bachelor uncle, æt. sixty-three, to leave off his surtout, change his newspaper, learn to play at shorts, and avow a taste for French cookery; his sharp-set nephews and nieces have seen in print that these are indications of insanity, for that "as a general rule, any change from the usual habits of the individual should excite suspicion," (Liddell's translation of Esquirol on the Hallucinations of the Insane, p. 35. Note,) and would you add a fresh stimulus to their appetite in the shape of a fine ever suspended over their head, like the sword of Damocles? Are they not ready enough to lament over their uncle's eccentricities, and wonder what his canal shares may amount to, without the assistance of Will. v. cap. 188, § 1297?—*Ed. Med. Quart. Rev.*]

GREAT OAKS.

The celebrated Cowthorpe oak, upon an estate near Wetherby, belonging to the Right Hon. Lady Stourton, measures, within three feet of the surface, sixteen yards in circumference, and close by the ground twenty-six yards. Its height is about eighty feet, and its principal limb extends sixteen yards from the boll. The Greendale oak, at a foot from the ground, is in circumference thirty-three feet ten inches. The Shire oak covers nearly 707 square yards; the branches stretching into three counties, York, Nottingham, and Derby. The Fairlop oak, in Essex, at a yard from the ground, is thirty-six feet in circumference. Damory's oak, in Dorsetshire, at the ground, was in circumference sixty-eight feet, and when decaying became hollow, forming a cavity capable of containing twenty men. An oak felled at Withy Park, Shropshire, in 1697, was nine feet in diameter without the bark. The Baddington oak, in the Vale of Gloucester, was fifty-four feet in circumference at the base; and Wallace's oak, in Torwood, in the county of Stirling, must have been at least eleven or twelve feet in diameter.—*Sir W. Jardine's Notes to White's Natural History of Selborne.*

This list might easily be extended. Professor Burnett mentions an oak in the hamlet of Kingsland, between London and Hackney, the cavity of which has been fitted-up as a chapel: the ingenious author of the "Outlines of Botany" was one of a congregation of nearly eighty persons assembled in it, and there was room to spare. At Creswell, in the county of Derby, there is an oak of vast size, and hollow. It happened some years since that two London workmen, engaged in decorating the duke of Portland's mansion

at Welbeck, were reposing after their day's labour, and enjoying a can of beer within the genial recesses of this venerable tree. Unluckily their conversation took a botanical turn, and they talked of the tree in which they were sitting: one stoutly maintained it to be a beech, and the other as firmly asserted it to be an ash. To settle the dispute, one of them plucked a leaf, but this only aggravated the bitterness of the debate; for each appealed to the leaf as a proof of the stupid and almost malignant obstinacy with which his opponent persisted in denying the plainest matter of fact. Our fair informant, who witnessed the scene, and was at that time a very little girl, thought the disputants more than half-crazed, and ran home to tell her father of the surprising ignorance of a couple of Londoners.

ON THE APPARENT DIRECTION OF EYES IN A PORTRAIT.

When we consider, says the author, the precision with which we commonly judge whether the eyes of another person are fixed upon ourselves, it is surprising that the grounds of such judgment are not distinctly known, and that most persons in attempting to explain the subject would overlook some of the circumstances by which they are generally guided. Though it may not be possible to demonstrate, by any decisive experiment, on the eyes of living persons what those circumstances are, we may find convincing arguments to prove their influence, if it can be shown in the case of portraits, that the same ready decision that we pronounce on the direction of the eyes is founded, in great measure, on the view presented to us of parts which have not been considered as assisting our judgment.

Dr. Wollaston then adverts to the influence of the form of the iris, as announcing the direction of the eye in portraits, and to that of the variable portion of the white shown when the eye is variously directed in living persons: he remarks, however, that even in real eyes we are not guided by this circumstance alone, but are unconsciously aided by the concurrent position of the face; and he illustrates this opinion by reference to a series of drawings annexed to the paper, and which show that the apparent position of the eyes is principally influenced by that of the adjacent parts of the face, especially those which are most prominent; and these considerations are not limited in their application merely to cases of lateral turn of the eyes and face. But the same principles also apply to instances of moderate inclination of the face upwards or downwards: for when the face is directed downwards, the eyes that look at us must be turned upwards, from the position of the face to which they belong; and if to eyes so drawn an upward cast of features be substituted for the former, the eyes immediately look above us. From these and other details given in the paper, the author concludes that the apparent direction of the eyes to or from the spectator, depends upon the balance of two circumstances combined in the same representation; namely, 1st, the general position of the face presented to the spectator; 2d, the turn of the eyes from that po-

sition; and thence proceeds to examine why, if the eyes of a portrait look at the spectator placed in front of the picture, they appear to follow him in every other direction. When two objects are seen on the ground at different distances from us in the same direction, one appears and must be represented exactly above the other, so that a vertical plane from the eye would pass through them; and since such a line will be seen upright, however far we remove to one side, it follows that the same objects still seem to be in a line with us exactly as in the front view, seeming as we move to turn from their first direction.

In portraits the permanence of direction, with reference to the spectator, and corresponding change of its apparent position in space when he moves to either side, depends upon the same principles. The nose drawn in front, with its central line upright, continues directed to the spectator, though viewed obliquely; or if the right side of the nose is represented, it must appear directed to the right of the spectator in all situations; so that eyes that turn in a due degree from that direction towards the spectator, so as to look at him when viewed in front, will continue to do so when viewed obliquely.—*Dr. Wollaston, in Abstract of Phil. Trans.*

THE WEEPING WILLOW.

The weeping willow, (*S. Babylonica*), which is the most ornamental species, has received its specific name from the supposition that it was upon such trees that the Israelites hanged their harps, when by the waters of Babylon they sat down and wept on the remembrance of Sion. But modern travellers affirm that it is a mountain-plant, and not an aquatic one. Pope's willow, at Twickenham, which was sacrilegiously cut down a few years ago, was the parent of many of those now growing in this country, as it was a favorite source; it is said to have been raised from a rod that with others formed the outer part of a package arrived from Spain, and which the poet planted, thinking it exhibited some signs of vitality.—*Burnett's Outlines of Botany.*



BIRTHS IN PARIS DURING THE YEARS 1831 AND 1832.

In 1831 there were 29,530 births; in 1832 there were 26,823.

During fifteen years, *i. e.* from 1817 to 1831, there were born in France 7,490,951 boys, and 7,041,247 girls; the proportion of the former to the latter being nearly as seventeen to sixteen: that is to say, the number of males exceeded that of females by one-sixteenth. This, it will be observed, is at variance with the general opinion, which had fixed the proportion as being twenty-two to twenty-one. It is farther remarkable, however, that if we separate the natural children from those born in wedlock, the result brings us nearer to the old calculation: thus, in the fifteen years above alluded to, there were born in France, of illegitimate children, males 523,436, females 501,115; being very nearly as twenty-three to twenty-two.—*Medical Gazette.*

DEATHS IN PARIS IN 1831 AND 1832.

In 1831, the number of deaths was 25,996; in 1832, the number was 44,463: but of these, 18,602 died of cholera; and if this number be subtracted from the deaths in 1832, it gives 25,861 as the mortality of that year, or a diminution of 135, which diminution is accounted for by the smaller number of births during the latter year, in consequence of the extraordinary sickness which then prevailed. The general result clearly proving, what we have demonstrated on former occasions with regard to London and other towns in this country, that when they have been visited by cholera, the mortality has been the ordinary number of deaths + those caused by the epidemic.—*Ibid.*

FAIRY-RINGS.

In this paper the author relates briefly some observations which he formerly made on the progressive changes of these rings, which appear to him to lead to a satisfactory explanation of their origin.

In the first place, he observed that some species of fungi were always to be found at the exterior margin of the dark ring of grass if examined at the proper season. This position of the fungi led him to conjecture that progressive increase from a central point was the probable mode of formation of the ring: and he thought it likely that the soil which had once contributed to the support of fungi, might be so exhausted as to be rendered incapable of producing a second crop. The defect of nutriment on one side would occasion the new roots to extend themselves solely in the opposite direction, and would cause the circle of fungi continually to proceed, by annual enlargement, from the centre outwards. The luxuriance of the grass follows as a natural consequence, as the soil of an interior circle is enriched by the decayed roots of fungi of the succeeding year's growth. Such a progressive enlargement, he remarks, had already been observed by Dr. Hutton on the hill of Arthur's Seat near Edinburgh; but Dr. Hutton had not attended to the production of fungi.

Dr. Withering, on the contrary, remarked the connexion of the rings with fungi, but had not noticed their progressive enlargement.

During the growth of fungi, the author observes, they so entirely absorb all nutriment from the soil beneath, that the herbage is often for a while destroyed, and a ring appears bare of grass, surrounding the dark ring; but after the fungi have ceased to appear, the soil where they had grown becomes darker, and the grass soon vegetates again with peculiar vigour.

For the purpose of observing the progress of various circles, he marked them by incisions for three or four years in succession, and found their annual increase to vary from eight inches to as much as two feet, according to the species of fungus to which they are owing; for he has observed as many as five species that have this mode of growth; *Agaricus campestris*, *Ag. orcadus*, *Ag. procerus*, *Ag. terreus*, and the *Lycoperdon bovista*.

The author has had many opportunities of remarking, that when two circles interfere with each other's progress, they do not cross each other, but are invariably obliterated between the points of contact. The exhaustion occasioned by each obstructs the progress of the other, and both are starved; a circumstance which he considers as a strong confirmation of his hypothesis.

He has further remarked, in one instance, that different species of fungi appear to require the same nutriment; for, in a case of interference of a circle of mushrooms with another of puff-balls, the circles were, as in other cases, both obliterated between the points of union.

With the hope of ascertaining in what length of time a soil might recover the power of producing a fresh crop of fungi, a groove was cut along the diameter of a mushroom-ring, and a quantity of the spawn taken from its circumference was inserted along it; but the experiment unfortunately failed altogether, and the author had no opportunity of repeating the experiment.—*Dr. Wollaston, in Abstract of Phil. Trans.*

ON THE STRUCTURE OF THE COVERING OF THE CORNEA.

(In a Letter from W. C. WALLACE, Esq., New York, to W. MACKENZIE, M.D., Glasgow.)

Hudson-street, New York; 22d November, 1833.

MY DEAR SIR,

It is stated that the conjunctiva lines the eyelids, and is reflected over the eye-ball; and that it is a membrane between the mucous and the cutaneous structure, as it partakes of the diseases of both.

When the eye of an ox is immersed in hot water or vinegar, the anterior membrane coagulates, and may be separated from the cornea, and from that portion of the conjunctiva which it covers. The conjunctiva does not coagulate, neither can it be traced to the cornea, but seems inserted into the sclerotica. When the eye is macerated, and the conjunctiva dissected from the eye-ball, the conjunctiva may be cut through at its attachment, and as the an-

terior membrane overlaps it, there may be the appearance of a continuity of structure; but if the separation be commenced on the cornea, and be carried to the conjunctiva, the corneal covering will be found to overlap it for a short space, and to be a distinct membrane, as it can be completely separated from it. It may be compared to a small watch-glass, very thin at the edges, a little larger than the cornea, and placed over it and the contiguous conjunctiva. This is not a mucous membrane. It resembles the cuticle, in being composed of albumen, and in being easily regenerated when abraded.

Were the anterior membrane a continuation of the conjunctiva, the chemosis in severe catarrhal ophthalmia would not stop at the edge of the cornea, but would proceed over its surface. Were it a mucous membrane, the mucus secreted would impede vision. I do not recollect having seen pustules on any part of the eye that were not covered by this membrane.

* * * *

I am your obliged friend,

W. C. WALLACE.

—*Med. Gazette.*

TEST FOR HYDROCYANIC OR PRUSSIC ACID, AND METHOD OF APPRECIATING THE QUANTITY.

We are informed by Mr. John T. Barry that the nitrate of silver, in common with other salts of that metal, is so extremely delicate a test of the presence of hydrocyanic acid, that its detection is not difficult in a drop of water containing far less than the ten thousandth part of a grain of that poisonous agent. For instance, if one minim of the dilute medicinal solution be mixed with a pint of water, its presence may be demonstrated in a single drop of the mixture. But what is of more consequence is, that although the mixture be contaminated with various organic substances, such as those contained in articles of diet, milk, coffee, tea, porter, wine and soups, so far as is yet known, the test retains its sensibility unimpaired. Mr. Barry, however, thinks that this extreme sensibility, while it renders the evidence of the silver test conclusive as to the absence of prussic acid, will be of more limited service in establishing its presence, for, without adverting to the possibility of other volatile substances being hereafter discovered to have a similar effect on solution of silver, it is to be borne in mind that this re-agent indicates the existence of prussic acid in some esculent substances where it had previously been found, as well as in some new ones. Upon this branch of the subject medical jurists will probably think it right to collect information.

The application of the solution of silver is simple. The suspected fluid is to be acidulated by the addition of acetic acid, but so as to redden litmus paper in only the slightest degree. If excess of acid be already present, it is to be not quite neutralized by carbonate of soda. These precautions are adopted to retard the

interference of ammonia or muriatic acid. Two or three drops quite cold are then put into a watch glass, and immediately covered by a plate of glass, whose under-surface, to the breadth of a pea, is moistened with solution of nitrate of silver, formed by dissolving one grain lunar caustic in one hundred grains distilled water.

If the inverted drop of silver solution retain its transparency unaltered, the absence of prussic acid is established; for, had it been present, the silver solution would in a few moments have become clouded by the formation of a white precipitate, an effect which, indeed, is almost instantaneous when the prussic acid is not excessively diluted. If, on the other hand, the precipitate appear, the conclusion must not be drawn that it is cyanuret of silver, until identified as such by two properties: first, its speedy re-solubility, as denoted by the clouded drop becoming again clear, when placed over a vessel of caustic ammonia, in which respect it differs from the silver compounds of iodine and bromine: and secondly, in retaining unchanged its pure white colour after exposure a few minutes to the sun's rays, or for a longer time, to daylight. As this property essentially distinguishes it from the compound of silver with chlorine, it is important to establish it by a separate experiment upon a somewhat larger portion of the precipitate, which should be obtained, by candlelight, by successively placing the inverted drop of nitrate of silver over renewed portions of the liquid in a saucer: as soon as the precipitate separates into distinct curd-like particles, it is ready for exposure to the solar rays.

Another property which distinguishes the cyanide (or cyanuret) of silver from the chloride, is, that upon being ignited in an open short glass tube, the cyanogen burns with a flame of the usual colour, leaving the metal pure, if sufficiently heated, a quality the more valuable as it furnishes an index to the proportion of prussic acid it represents, which upon ordinary occasions may be estimated as equal to one fourth the weight of residual silver.

When, acting upon this principle, it is desirable to ascertain the entire quantity of prussic acid, it is to be obtained by slowly distilling over, in nearly filled close vessels, about an eighth of the acidulated mixture under examination; rectifying it; re-acidulating by acetic acid; precipitating by slight excess of nitrate silver; washing with distilled water, only so long as the washings affect litmus paper; drying at 212° ; weighing: and lastly, igniting and re-weighing.—*The London and Edinburgh Philosophical Magazine.*

SPARK PRODUCED DURING THE FREEZING OF WATER BY ÆTHER

M. Julia Fontenelle states that M. Pontus, professor at the Royal College of Cahors, has communicated to him the following observation. It is well known to chemists that if a phial, terminated by a small tube one to two centimetres long, be filled with water as well as the tube, and surrounded with cotton moistened with æther, the water freezes during the evaporation of the æther under the

receiver of the air-pump. On repeating this experiment, M. Pontus remarked, that some moments before the congelation occurs, a spark, visible in daylight, escapes from the small tube which terminates the phial. This phænomenon is so generally true, that every time that he perceived the spark, he concluded the congelation was about to take place; and, on the contrary, when he did not see it, he presumed that the congelation was not near. M. Pontus was never disappointed in his conclusions. M. Fontenelle states that he also has seen the spark, and that M. Becquerel had remarked to him a similar effect at the moment of the formation of crystals in solutions.—*Ibid.*

HORSE SHOES.

The earliest nailed shoe of which there is any certain record was found at Tournay, in Flanders, buried along with him in the coffin of Childeric, king of France, who died in the year 481: a particular account of the opening of this tomb is given by Chiffetius; and Montfaucon, in his *Antiquities*, states, that this shoe was with nail-holes in it, and that it fell to pieces on being handled. He has figured it, and from its size, one might readily suppose that it belonged to some favourite mule. So small a piece remained however of this shoe that the greatest part of the figure is supplied by the draftsman, and the holes are by no means decisive of its being a shoe of the nailed kind; for we may remark that the iron applied for the preservation of their socks or *hippopodes*, must have been also perforated in order to fix them on to the leathern soles, so that considerable uncertainty remains respecting this point; and the period also is only a century later than Vegetius.—*Bracy Clark on the Usages of the Ancients respecting the Shoeing of the Horse.*

A SURGICAL ANECDOTE.

A young surgeon, with all those natural advantages of mind and manners which qualify a man to succeed in society, was appointed to a Dispensary which had lately been established in his native county. Surrounded by partial relatives and friends, and possessing qualities which entitled him to their esteem, it is not surprising that he soon acquired a very considerable reputation, and in a very few years became exclusively possessed of the general practice of a rich and populous neighbourhood. And here I may observe, that I can scarcely conceive a situation more enviable than that of a young and successful medical practitioner in the country. He must indeed be deficient in morals, manners, or education, if he is not the most popular man in the neighbourhood. Every moment of his time is either agreeably or usefully employed; respected and beloved by the poor, to whom he never appears but in the character of a benefactor, he passes through the country (whatever be its state of tumult and insubordination,) by night or by day like a being of a superior order; let destruction fall where it may, his property and person at least are held sacred. His occupation gives

healthful exercise, not unmixed with pleasure; and if, in the course of his extensive rides through the country, he should chance to fall in with the hounds, why who is so welcome as the doctor? Health brings with it cheerfulness, and cheerfulness is the parent of kindness. Add to all this independence, with that most delightful of all feelings, which Mr. Edgeworth calls "the sense of success," and I think you have as many of the requisites of happiness as can well fall to the lot of humanity.

Well, our young friend possessed all these advantages, and he had besides the advantage of being received as a friend as well as a physician in the house of the lord of the manor, one of the most amiable and distinguished men in the country. His life passed on in this way for four or five years, every day adding to his reputation and happiness, until one fatal night, when he was called in haste to visit his patron and friend, who was suffering from a retention of urine. Having tried the usual means of relief in vain, he attempted to pass the catheter, but after two hours, spent in painful and ineffectual efforts, he is obliged to call for further assistance. Allow me here to explain the nature of the difficulty which he had to encounter, but was unable to overcome. Retention of urine in old persons is, nine times out of ten, caused by an enlargement of the middle lobe or portion of the prostate gland, which pushes up, in this way, into the cavity of the bladder, and pressing against the internal orifice of the urethra, prevents the escape of the urine. If the catheter be pressed backwards, or even upwards, its point bears against the projecting portion of the gland, and cannot, without perforating it, reach the cavity of the bladder. (Here Mr. C. exhibited a section of the bladder and urethra, with enlargement of the middle lobe of the prostate gland.) The point of the catheter was seen pressing against the projecting lobe, which prevented the instrument from passing into the bladder.

This difficulty gave time for the arrival of a young surgeon, who had been induced, by the extraordinary success of our friend, to establish himself in the same village; for observe, that there is not a village in Ireland, however small or remote, in which you will not find a competitor. "I fear," said the surgeon who had charge of the case, "that this is a serious affair. I apprehend we shall be obliged to puncture the bladder, but try what you can do with the catheter." The young man, having ascertained the real state of the case by examining the prostate through the rectum, drew from his pocket a long and deeply curved catheter of the middle size, and having passed it up to the obstruction, depressed his hand, while at the same time he withdrew about an inch of the stilette, and the instrument instantly slipped over the obstruction into the bladder. In a few moments the patient was out of pain and out of danger. Need I describe the different feelings with which the two young aspirants for public favour turned towards their respective homes. The one, loaded with the praises and benedictions of a grateful family, springs upon his horse, which scarcely seems to

touch the ground until he reached his home, where, in the bosom of his anxious family, he recounts every circumstance of his success, and indulges in bright anticipations of future fame and independence. The other, passing unheeded (it may be for the last time,) through the silent hall, which lately rung with his welcome, returns with heavy steps to his cheerless home, ruminating as he goes with bitter but unavailing regret, on opportunities neglected and ruined hopes.—*Dr. Crampton's Lecture, in Med. and Surg. Journal.*

ON SOUNDS INAUDIBLE BY CERTAIN EARS.

In this communication the author describes a peculiar insensibility to certain sounds in the ears of persons not otherwise deaf, which he was led to observe by trying different modes of lessening the sense of hearing in himself; when he found, that by closing the nose and mouth, and expanding the chest, the membrana tympani, thrown into a state of tension by external pressure, made the ear insensible to grave tones, without affecting the perception of sharper sounds. In this case the ear was insensible to all sounds below F marked by the bass cliff.

In the natural healthy state of the ear, there seems to be no limit to the power of discerning low sounds: but if we attend to the opposite extremity of the scale of audible sounds, and with a series of pipes, exceeding each other in sharpness, examine their effects successively upon the ears of different persons, we shall find considerable difference in their powers of hearing them, and see reason to infer that human hearing is more confined than has been supposed. Dr. Wollaston's attention was called to this circumstance by finding a person insensible to the sound of a small organ-pipe, which, with respect to acuteness, was far within the limits of his own hearing. By subsequent examination, this person's hearing was found to terminate at a note four octaves above the middle E of the pianoforte. Other cases of the insensibility of the ear of certain persons to high sounds are next adverted to: such as to the chirping of the grasshopper, the cricket, the sparrow, and the bat; the latter being about five octaves above the middle E of the piano. The limit of the author's own sense of hearing is at about six octaves above the middle E; and, from numerous trials, he is induced to think that, at the limit of hearing, the interval of a single note between two sounds may be sufficient to render the higher note inaudible, although the lower one is heard distinctly.

The range of human hearing includes more than nine octaves, the whole of which are distinct to most ears, though the vibrations of a note at the higher extreme are 600 or 700 times more frequent than those which constitute the gravest audible sound; and as vibrations incomparably more frequent may exist, we may imagine, says the author, that animals like the Grylli, whose powers appear to commence nearly where ours terminate, may hear still sharper sounds, which we do not know to exist; and that there may be insects hearing nothing in common with us, but endued with a power of

exciting, and a sense that perceives the same vibrations which constitute our ordinary sounds, but so remote that the animal who perceives them may be said to possess another sense, agreeing with our own, solely in the medium by which it is excited, and possibly wholly unaffected by those slower vibrations of which we are sensible.—*Dr. Wollaston, in Abstract of Phil. Trans.*

THE TAXODIUM.

The Taxodium is a native of America, growing abundantly in the southern parts of the United States, and likewise in Mexico. In the gardens of Chapultepec is one called the Cypress of Montezuma, which was in full vigour when that prince was on the throne, in the year 1520. It is now forty-one feet in girth, and apparently only in its prime. But another, far more remark-worthy, is described by Exter, as standing in the burial-ground of *Santa Maria de Tesla*, which the inhabitants of Oaxaca call *Sabino*. There are several noble trees in the same place; the largest, however, is the vegetable wonder, measuring 117 feet ten inches (French) in circumference, thirty-seven feet and a half in diameter, and about one hundred feet in height. This patriarch of the woods was mentioned by Cortez, who encamped his little army beneath its shade; and it is regarded with reverence almost approaching to religious veneration by the native Mexicaus. The height at which the admeasurements were taken is not mentioned; but, supposing them taken on the ground-level, there are several Taxodia mentioned by Michaux, as growing in the Floridas and Louisiana, which would nearly equal the great tree of *Oaxaca*: for he says they gave forty feet in girth above a conical base three or four times as large as the columnar trunk. The mean age of the Taxodia has been calculated to be from 4000 to 6000 years; and if such computations be correct, which however is more than doubtful, the great tree of *Oaxaca* may be coeval with the creation. Or, as the poet says,

“Its cold and lengthened tracts of shade
Rose on the day when sun and stars were made.”

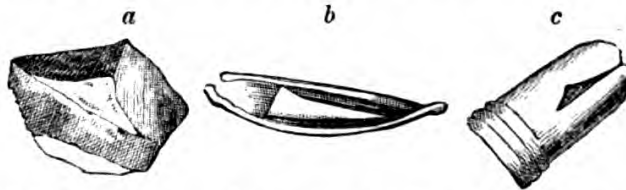
—*Burnett's Outlines of Botany*, No. 14.

ON THE ORGANS OF THE VOICE IN BIRDS.

There is a great difference in the construction of the larynx in those animals which have an epiglottis and in those which have none. In the latter we do not find any thing resembling the cricoid and thyroid cartilages of the larynx of mammiferæ. In the amphibia, the glottis is situated in a round fleshy mass (*bourrelet*), formed by the interweaving of nearly circular fibres: in birds it is cartilaginous, almost osseous, and tolerably uniform in its external form. In the genera *Pelecanus*, *Phasianus*, *Ardea*, and *Phœnicopterus*, the larynx has a triangular shape, the apex of the triangle being directed forwards, and its base or posterior part being fringed with little pointed, white, cartilaginous teeth. These tubercles, which border

the glottis, are very broad and short in *Phasianus paraka* of the Orinoco; they form a white band in the *Ardea cocoes*; they cover, almost entirely, the glottis of the *Palamedea bispinosa*, and that also of the *Aras*, a family of the parrot tribe; but they are entirely wanting in some aquatic birds, as in the alkatras of the South Sea. The six designs in which I have represented the larynx of birds, present all these varieties of construction. The glottis is supported at its base by an osseous, broad, flat cartilage, sometimes crenated anteriorly, as in the Guyana pheasant, but pointed and elongated in the pelicans and *Phœnicopterus*.

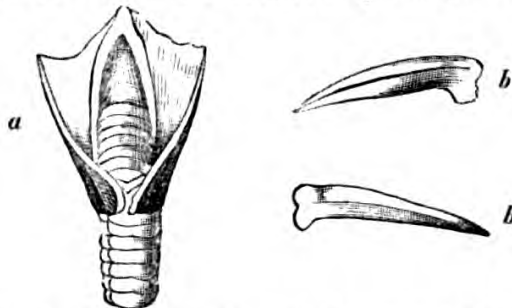
This cartilage, to which I shall give the name of base (*socle*) has



a, "Socle" of *Pelecanus alcatras*. *b*, ditto of *Pelecanus olivaceus*.
c, ditto of *Phasianus garrulus*.

not hitherto been well described. It has, on its upper surface, a membrane which divides it into two parts, and which proceeds from it at right angles. This membrane is triangular, and resembles the index of a sun-dial. In the living animal, it is generally visible at the centre of the opening of the glottis: it there forms a partition, the presence of which must contribute a great deal to modify sounds and render them more acute: it divides, so to speak, into two currents, the air which is driven by the inferior larynx towards the glottis. I was surprised to find that it was wanting in the glottis of the *Palamedea bispinosa*. This flat cartilage, thus furnished with a triangular membrane, is immediately attached to the rings of the trachea: it may be considered as a half-ring of a singular construction.

Besides this base, the glottis of birds is supported by four little bones, which are connected, two by two, in the form of compasses, the anterior pair of which is embraced by the posterior. I do not



a, Larynx of *Ardea cocoes* opened. *b*, Bonelets, or compass bones.

hesitate to call these bonelets; for, in tropical birds their substance is too dense for them to be ranked among the cartilages. They are

triangular, diminish towards the extremities, and are joined in pairs by condyles. I have carefully copied those of the great heron with black neck and white floating comb, of the river Magdalena, and which constitutes an intermediate species between the *Ardea cocoes* and the *Ardea johannæ*. This handsome bird is four feet four inches high, when he stands with his neck elongated, and his greenish bill raised. The two anterior bonelets, or the branches of the anterior compass, (if I may be allowed the expression,) are immoveable, while the posterior compass, which is placed over and embraces the other, extends its branches by means of two fleshy muscles which are placed outside the bony glottis. These posterior bonelets might be likened to the arytenoid cartilages, while the anterior by their position might correspond with the thyroid cartilage of mammiferæ; but, in classes of animals whose entire organisation is so different, these comparisons, most frequently, only serve to lead to very inaccurate ideas.

It follows, from this construction of the superior larynx, that the rima or opening of the glottis, confined by the anterior bonelets, can scarcely ever become either widened or more contracted; and that it is by the action of the posterior branches, which are placed at the outer border of the glottis, that the internal capacity of this organ becomes changed. The voice is always projected through the same opening, but the rapidity with which this is effected depends as much upon the impulse it has received in the inferior larynx, as upon the approximation of the bonelets of the glottis.

But the modification of the sounds does not depend solely upon the extremity of the trachea, nor upon the form of the two larynxes. The whole trachea in some of the tropical birds, presents very extraordinary appearances. In the same species, the trachea in the male is sometimes twice the length of that in the female. Linnæus has already announced this in the description of the *Phasianus parraka*. We also meet with this difference in several swimming and wading birds of Europe, in storks, cranes, and herons; and M. Daubenton has observed it in the fine genus *Crax*, the *Koco* of the tropics, which has often served us for food in the woods. There is an extraordinary prolongation and sinuosity of the trachea in a new species of pheasant, which I shall describe under the name of *Phasianus garrulus*. This pheasant, which must not be confounded with the *Phasianus motmot*, is very common north of the equator, in the river Magdalena, in the province of Caracas, and in New Andalusia. Flocks of from sixty to eighty perch themselves upon the dead branches of contiguous trees, and fill the air with their piercing cries of *catacras? catacras?*

I found the length of the trachea in the male of this species, to be, from the superior larynx to the bronchi, fifteen inches seven lines, while the female's was but five inches four lines. That in the male first descends among the teguments under the sternum as far as the legs; it is then folded back (in nearly the same manner as M. Bonpland found in the bronchi of the crocodile), forms a con-

siderable sinuosity in reascending, and then enters the lungs. The trachea of the female, which is shorter in the proportion of five to two, does not form this sinuosity, but enters, without folding itself, at once into the bronchi. Here then we have a bird in which the air forming his voice passes between the legs before arriving at the glottis. The Indians observe that the cry of the female of this species is much less shrill than that of the male, whose trachea presents so singular a construction. M. Cuvier has communicated to me the important observation, that, in the common pheasant (*Phasianus colchicus*) the trachea does not, in either sex, present this sinuosity, and that, in the *Cygnus canorus*, the female presents the elongation of this organ. It is remarkable that such differences should exist in species nearly resembling it.

In passing from Santa-Fé de Bogota to Quito, during the rainy season, in 1801, we found the banks of the Canca covered with the *Palamedea bispinosa*, the kamichi of Buffon, which approximates in size to the condor of the Andes. It is called by the inhabitants the Uitre de Sienea. It walks about very gravely in marshy places, uttering constantly a uniform cry, somewhat resembling the sound produced by a boy's whistle (*soufflet*).

Staying some days at Buga, I had an opportunity of obtaining one of these birds, and of examining its larynx. I saw with surprise that it was rather its trachea than its inferior larynx which enabled it to produce such extraordinary sounds. This trachea diminishes in diameter from the bony glottis to the inferior larynx: it contracts in the proportion of two to three; but, before arriving at the inferior larynx, it suddenly becomes much wider; it becomes



Enlargement of the trachea in *Palamedea bispinosa*, with the insertion of the two muscles.

nearly five-sixths larger than the glottis itself, and this enlargement is nearly fourteen lines long. Lower down, the trachea contracts again and more than before; for, in entering the inferior larynx, it has not one fourth of its original diameter. I sketched on the spot this peculiar conformation of the *Palamedea bispinosa*, of which I

have scarcely met with any analogy in other birds which I have dissected. M. Cuvier, however, has seen two other examples of these sudden enlargements, in the *Anas clangula*, and in *Anas fusca*; but in these cases the swelling was of a spherical form, with a nearly circular disc, and different, in that respect, from that of the *Palamedea bispinosa*. In this two bundles of very long and slender muscles are attached to the enlarged part of the trachea; these draw it downwards, so that the larger rings compress those of the narrower part; a mechanism resembling that of some musical instruments, and which, without doubt, contributes to the production of the monotonous cries and cadences of this bird.

I shall not dwell long on the structure of the inferior larynx of birds. It would be difficult to add anything to a subject which M. Cuvier has treated of in a particular memoir. I have drawn, in the greatest possible detail, the inferior larynxes of the *Psittacus ararauna*, and of a new species of pelican of New Guinea, which I shall describe under the name of *Pelecanus olivaceus*. It has the habit of a *Plotus*; but its bill and its intermediate claw being serrated, indicate that it belongs to the genus *Pelecanus*. In one figure the various muscles are delineated, with which nature has furnished this inferior larynx, which is really an instrument of music. The other figure represents the sacs or valves in this bird, which are of an extraordinary size, being more than three lines deep and two broad; but in some tropical animals which have a very strong voice, this seems to depend on the structure of the superior larynx, rather than on that of the inferior. This is the case with *Phasianus garrulus*, in which I have represented the bonelets and



Upper larynx of *Phasianus garrulus*, opened.

the arytenoid cartilages bent forward, in order to display the internal structure of the glottis. I did not find sacs in the inferior larynx of this bird, but simply a bulging out and broadening of the last rings. The base of its inferior larynx is sustained by a cartilage, which I have not met with in any other animal of this class; it is a round, membranous, crenulated plate, upon which rises a small compressed bone. The want of sacs in the lower end of the larynx, in the *Phasianus garrulus*, is compensated by the mechanism of the superior larynx. Above the opening of the tra-

chea there is a rima leading to two membranous pouches. In blowing through the bronchi into the trachea, these pouches are seen to swell. Valves are also wanting in the inferior larynx of the *Pelecanus fuscus*, but there are true sacs in the superior. In the glottis of the *Palamedea bispinosa*, whose trachea presents the extraordinary enlargement I have just described, there are folds having some analogy with the sacs which in man form the ligaments which go from the arytenoid cartilages to the thyroid. These folds seem to modify the voice of this bird; for in the inferior larynx, which I opened and have carefully drawn, there is nothing which can perform their functions. In the same class of animals, it is sometimes the glottis, sometimes the form of the trachea, and sometimes the inferior larynx, which modifies or gives character to the voice.—*Field Naturalist's Magazine.*

THE HIPPOMANEÆ.

The Hippomane of the Greeks was an Arcadian plant, said to have the power of making horses mad. It was not improbably a species of *Euphorbia*, the acrid juices of which, flowing into the wounds inflicted by the thorns, would render most beasts outrageous, and therefore must not be mistaken for the poisonous distillation from raging mares, as described by Virgil, in his third *Georgic*.

The modern *Hippomane* is the *manchineel tree*, a very acrid and deleterious plant, but the poisonous properties of which have been much exaggerated. Jacquin and Ricord have shewn that the notion formerly prevalent of the shade or *exhalations* from the tree being deleterious, is untrue, for they remained under its shadow for several hours, and even passed through extensive forests of manchineel trees without being injured. The sap which exudes when the boughs are cut or broken, is, however, very acrid; it will blister and sphacelate the skin, and, if inserted into wounds, cause death. The timber is beautifully variegated with brown and white, and capable of receiving a high polish; but before the trees are felled fires are usually lighted round them, to inspissate the sap, and render the hewer's occupation less dangerous; for, even when the juices are not applied in sufficient quantities to produce death, they cause intense pain, likened to the burning of a red-hot iron. This led to the cruel practice mentioned by Mérat and Lens, as having prevailed in the French colonies, of the slave-drivers steeping their scourges in manchineel juice before they flogged the negroes. When such enormities are perpetrated by the masters the sequel cannot excite surprise; for further on, we are told that the poisonous juice and fruit of the manchineel have been mixed by the slaves in coffee, to release themselves from their oppressors. M. Ricord states, from much experience, that the usual antidotes against this poison are ineffectual, and that the only remedy he found of use was an emulsion made from the seeds of the *Nhandirhoba*, (*feuillæ scandens*,) and, when the dose of *manchineel* had not been very large, this lessened and removed its effects.—*Burnett's Outlines of Botany.*

CASE OF ULCERATION OF THE EYELID.

Thomas Sprawson, ætat. fifty-nine, a builder, has an ulcer about as large as a sixpence at the inner canthus of the left eye.

Characters of the Sore. The surface of the ulceration is a little depressed and rather pale and smooth; its edges are slightly raised, indurated, and irregularly tuberculated; it discharges a thin watery fluid, which slightly irritates the surrounding skin; the sore is scarcely at all painful, but the contraction of the surrounding parts has drawn down the upper lid.

This patient is healthy in appearance, and says he has enjoyed a good state of health all his life, and is now pretty hearty.

History. A little pimple appeared at the inner canthus about three years ago; this was followed by two or three others, which arranged themselves in a somewhat circular manner, leaving a portion of healthy skin in the centre; this apparently healthy portion of skin ulcerated in the course of a few months, and obtained, as its margin, the tubercular elevation of the cutis, which I have just described. Since that period the ulceration has been extending, and has not appeared to be checked, influenced in the slightest degree by any measures his medical attendants have employed for his relief.

When I first saw this gentleman I placed him upon a regulated system of diet, and directed him to take, three times a day, four scruples of the carbonate of iron, and a few grains of blue pill and conium in the evening, and to apply to the sore a little black wash prepared with a large quantity of calomel. At this second visit the ulceration had completely healed, and his health had much improved, and this state of amendment still continues, from, as I believe, a rigid perseverance in the foregoing plan of treatment; and I am the more disposed to this opinion, from learning that his disease was increasing at the time I first saw him, and also from knowing that the same treatment has appeared to effect an equally desirable change in the condition of the other similar cases which, as I have stated, are now under my care.

After having given this account of the disease I have endeavoured to describe with as much accuracy as possible, it will be perceived that it only agrees with cancer in two circumstances, that is, in being preceded by induration, and in occurring after the middle period of life. It is easy to perceive in what respects it does not resemble cancer: it is much less painful and less rapid in its progress; it is more manageable by remedial agents, and is not infrequently cured by judiciously conducted treatment; and it does not stamp the countenance with those morbid appearances which are so peculiarly characteristic of a genuine malignant disease. It does not, in short, excite the same train and extent of constitutional symptoms which are present in all cancerous affections.—*Monthly Archives of the Medical Sciences, February.*

HOMŒOPATHY.

The Journal from which we are about to extract the following observations is a very curious one. It is called the "Monthly Journal of Medico-Chirurgical Knowledge, and is published at Paris in four languages, French, English, German, and Italian. The number now before us (for November, 1833,) is in English. It contains an anatomical plate, well engraved, and unusually distinct: the arteries and veins are coloured. It represents the "region occipito-claviculaire;" and "each number will contain a plate of topographical anatomy, drawn from nature, engraved on steel, and large as life." The English, which is very quaint and queer, is said to be the translation of Henry Belfield Lefevre. It is printed in double columns, and in a marvellously small type, rather calculated for those who love a good pennyworth, than for the comfort of elderly eyes. So much for externals. The articles are good; though we fear that the Anglo-Gallic phraseology in which they are couched will prevent many from perusing them. Among others, it contains a very ingenious essay on Homœopathy, by J. Boudet, who signs himself "Chemist and Druggist, Doctor of Sciences." Dr. Boudet does not believe in homœopathy as a whole, but only in one of its principles, viz. that an immense change is caused in the therapeutic effect of drugs by the manipulations to which they may be subjected. He observes that,

"Before Toricelli and Pascal, the pressure of the atmosphere was not entered as a necessary element in the formulæ of natural philosophy; and, before Lavoisier, the influence of its elements in all chemical combinations had scarcely been noticed; but it is to the labour of the last few years we owe the wondrous strides that analytical science has made: these labours it is that have revealed unto us, in chemical and physical agents, new forces, of which we did not even suspect the existence. In the following article I wish to shew the correlation existing between the subtile forces I just alluded to, and those which the German doctor pretends to have unveiled; and at the same time to indicate the many consequences which may result from this examination, both in therapeutics and pharmacy.

"Among the most remarkable effects of these forces we must class the phenomena of that voltaic electricity, which plays so grand a part in all the motions of matter, and which seems to extend its influence even over its slightest modifications. It is well known that the influence of that omnipresent force has been entirely substituted to the vague idea of chemical affinity; that the simple contact of any two bodies suffices to bring it into action; and that many liquids, for instance, are notably modified by the vases that contain them, although they enter not into combination with their substance. Thus, the infusion of violets preserves its colour much longer in a pewter vase than in any other; and the

precise experiments of Dr. Bouchardat* have proved that the length of time during which milk can remain unaltered depends in a great measure on the vases in which it is contained: thus, in china, glass, or lead, it may coagulate in the course of three days, whilst in copper or brass it may remain liquid for a week. Fermentiscible liquids also undergo strange influences from the metal with which they come in contact. Dr. Bouchardat has demonstrated that alcoholic fermentation is almost immediately suspended by pouring the fermenting substances into vessels of brass or copper; and that alcohol placed in contact with mercury can no longer undergo acetic fermentation, whilst it absorbs oxygen, and becomes acid, as soon as it is removed from the influence of that metal.

“ Again, the discovery of isomery† has signalized in inanimate matter a mobility of which we before had no conception, has unrolled before us a new world for our observation, and taught us to guard against apparent analogies which disappear before a more profound analysis. Thus, phosphoric acid, and its divers salts, which by chemists have been looked upon as identical as long as their analysis gave the same proportions of oxygen and phosphorus, are now divided into phosphoric and pyro-phosphoric acids, phosphates and pyro-phosphates; and it has been fully proved, that the sole influence of heat might deeply modify certain mineral substances, although its action only extended to the position of their constituent molecules, without in the least altering their relative proportions.

“ If such be the case with substances which their very constitution renders far less impressionable than organic matter, surely in organic matter similar phenomena must be far more common; and such is really the case. I shall confine myself to one example: it results from the late experiments of Mr. Robiquet,‡ that meconic acid, when heated in water to 100° (therm. cent.) is converted into parameconic acid; consequently, the extract of opium, prepared by evaporation on fire, may be modified as to its chemical and medicinal properties, by a variation of a few degrees on the temperature of the mixture.”

* “ Journal de Pharmacie, Sept. 1833.”

† “ *Isométrie*, a name given to a recently discovered effect produced on some bodies by certain influences which modify the constituent molecules of those bodies, so as to alter their relation of position, without altering their relation of proportion. Thus, to cite a familiar example, lump sugar may, by trituration, be partially converted into starch. Every one may have remarked, that when finely powdered sugar is dissolved in water, the liquid always remains turbid.”—TRANS.

‡ “ Journal de Pharmacie, Sept. 1833; tome 18.”

PISCIDIA ERYTHRINA, OR THE FISH-WOOD.

This is one of the plants which have the property of intoxicating fish. The following passages, however, (for which we are indebted to No. 19 of the "Outlines of Botany,") relate to its effects upon man. They are taken from a paper by Dr. Hamilton, read before the Medico-Botanical Society.

"My tincture was prepared by macerating one ounce of the coarsely powdered bark in twelve ounces, by measure, of rectified spirit, which I had brought with me from England, for twenty-four hours, and straining. The tincture thus obtained was of a fine honey yellow, and appeared to be fully impregnated with the active principle of the bark; it had nothing striking or offensive in its taste or smell, but, on being dropped into water, it communicated to it an opaline or milky hue, evidently from the separation of a resin; and, on suffering some of the undiluted tincture to evaporate in a glass, the sides were encrusted with a white film of the resin which remained behind. Labouring at the time under a severe toothach, which seemed to set sleep at defiance, I took towards night a drachm measure of this tincture in a tumbler of cold water, and lay down, with the uncorked phial in the one hand and the empty glass in the other, to speculate upon the manner of its operation on the system. The dose was by no means disagreeable to take, nor was its action on the mouth and throat so unpleasant as that of the bark in substance, which irritated the fauces like the *Daphne Mezereum* or the croton oil; but, soon after swallowing the dose, I became sensible of a burning sensation in the epigastric region, spreading rapidly to the surface, and terminating in a copious diaphoresis, in the midst of which I was surprised by a sleep so profound that I was utterly unconscious of existence from about eight o'clock at night till eight the following morning, when I awoke free from pain of every description, and found myself still grasping the uncorked phial in one hand, from which not a drop had been spilled, and the empty glass in the other. No unpleasant sensation followed, as is usually the case after opiates, from the exhibition of what was perhaps a needlessly large dose; nor did a friend, whom, though in perfect health, I persuaded to repeat my experiment in his own person, suffer the slightest inconvenience from an equally full dose: his only observation was, that he never had slept so sound in his life as he did that night. I next tried its efficacy as a topical application in cases of carious teeth, introducing a pledget of cotton impregnated with the tincture into the cavity, and never knew an instance of a return of pain after this application. I was next desirous of comparing its effects upon animalculæ in water with those of the tincture of opium: for this purpose I took, in two separate wine-glasses, equal quantities by measure of water, filled with the lively young of the mosquito, adding to the water in one glass a sufficient number of drops of the *Tinctura opii* to stupify the ani-

malculæ, which fell in a mass to the bottom; I then dropped into the other an equal number of drops of the Tinctura piscidiæ, with a similar result. Next, taking the first glass, and carefully decanting the water without disturbing the insensible mass of animalculæ, I poured upon them fresh portions of pure water, previously filtered, in order to prevent confusion: upon which they revived, and swam about as actively as if nothing had happened. I treated those in the glass to which the dogwood tincture had been added, but without the slightest effect: the most frequently repeated affusions of pure water were not of the least avail; the animalculæ were truly dead, and thus furnished a conclusive proof of the superior potency of the dogwood over the opium tincture, in equal quantities."

REDUCTION OF STRANGULATED HERNIA.

I would not say that nothing ought to be done before reduction is attempted, but this much I will venture to advise, that if the surgeon is called in very shortly after the strangulation has commenced, there ought to be no hesitation about commencing the reduction by the taxis, unless the patient should have a fever: in that case, a large portion of blood ought to be abstracted, and the cold bath might be used as Mr. G. directs. The method I use is this. I place the patient in a recumbent position, with the knees drawn up, and his body with the shoulders drawn towards the pelvis, so as to bring the intestines down towards the pubis; then I grasp the tumor with both hands, or, if it is very small, with my fingers; then, instead of shoving up the tumor towards the abdominal ring, I gently pull down the contents of the tumor, and, if possible, the included intestines; thus removing the obstruction at the ring, when, by gentle but steady compression, the air is forced out of the intestine, and the strangulation will be instantly relieved.

[The above is extracted from an article by Dr. Martin, in the *Baltimore Medical Journal*. He says that, by this method, for which he acknowledges himself indebted to Mr. Geohegan, of Dublin, he has succeeded in every instance but one.—*Ed. Med. Quart. Rev.*]

FÆTUS OF THE WHALE.

M. Roussel de Vauzème presented the Academy of Sciences with a plaster model of the fœtus of a whale, extracted from its mother's womb, in the environs of the island of Tristan d'Acuntha (Atlantic Ocean). Peter Camper was yet the only naturalist who had had in his possession a whale fœtus: he has given a description of it in his posthumous works. The fœtus presented by Dr. Roussel weighs fifteen pounds, and measures two feet four inches in length. The time of gestation of the whale being from nine to twelve months, and the young whale being at its birth from twelve to fifteen feet long, the age of this fœtus may be approximately estimated at two months.—*Monthly Journal of Medico-Chirurgical Knowledge.*

MEDICAL POLITICS AND INTELLIGENCE.

MEDICAL REFORM.

THE subject of Medical Reform is one of such vast extent, as well as of such deep importance, that we confess we approach it with the greatest diffidence. To draw up a scheme for re-casting the practice of physic throughout the British empire would require so profound a knowledge, not merely of professional minutiae, but of human nature itself, that we shrink from the task; and, instead therefore of proposing some plan for a medical millennium fire-new from the mint of our imagination, we shall content ourselves with mentioning a few among the defects of the present system, together with such remedies as reason, the instincts of society, and justice—good-humoured justice, seem to demand.

The first on the list of alleged grievances is the supposed monopoly of the College of Physicians; but we should be glad to know in what this monopoly consists? It is true that the governors of hospitals and dispensaries in London have thought fit to exclude physicians who are not members of the College from holding office in those institutions. But surely in this case the monopoly, if it can be called one, is of the most laudable kind, for it is conferred not by force, but by merit. In this immense city, to which suspicious characters of all kinds flock by a sort of natural instinct, it seems reasonable to prefer the stamp of genuineness implied in being a member of the first medical society in the world, to the simple fact of being in possession of a diploma from some unheard-of university. No one can say that on this point the College has displayed any severity, or any desire to make the list of members of a monopolizing brevity. On the contrary, the fastidious would be inclined to reproach it with too good-humoured a facility—with admitting (as we find it stated in a late semi-official document,) the possessor of a degree from any university on earth: the alumnus of Aberdeen (whose diploma in one sense is worth its weight in gold,) is not rejected, and yet the spirit of monopoly is imputed to the College! Lord Durham indeed, in a speech, at the bottom of which he ought to have put *Medical Gazette*, as we do in our "Collectanea," endeavoured to ground the accusation of monopoly on the fact, that the proportion of physicians to the population of London is much smaller than in the cities of the continent: not knowing, probably, that London has at least three times as many physicians as it employs.

This naturally leads us to another topic. The majority of the sick in this country are attended by those who are at once physicians and druggists, who practise physic as a trade, and who, whatever may be their merits or their utility, can scarcely be expected to advance the art which they profess. What is the reason of this, and what is the remedy? Both are as clear as daylight, though not hinted at in Lord Durham's speech. The middle classes can pay but middling prices; and, if we wish Oxford street and Tottenham-Court road to have the benefit of medical advice

without swallowing barrels of pills, and hogsheads of saline draughts, we must encourage a race of physicians whose modest hopes will be commensurate with the less exuberant wealth of those who are to fulfil them; or, in plain English, we must have men who will take plebeian silver instead of patrician gold, and pocket a crown-piece without blushing.

Among the evils engendered by the junction of pharmacy and physic, there is one with which the most uninstructed part of the public are familiar—we mean the superfluity of medicine (and very nasty medicine too,) which is sent, swallowed (?), and paid for (??). “Those medicines,” says Gray, “must, in most cases, be made unpalatable, lest the patient should conceive himself to be furnished with mere slops for the sake of a charge being made.” (Supplement to the Pharmacopœia; Preface, p. x.) There is another monstrosity, however, derived from the same source,—from the conversion of physic into a trade, with which the public are less acquainted, namely, the selling of a practice. This driving of the sheepish patients, with sundry restive exceptions, from the pen of Mr. Savine into the pen of Mr. Calomelet, is really very ludicrous, and exhibits the infinite advantages of what Chesterfield calls a modest assurance. Mr. Savine, for 2000*l.* paid, or promised, endows his young successor with every medical virtue under heaven: the sick swallow the gilded bait, and form the live stock of the happy purchaser. Our pages are probably but rarely perused by unprofessional persons; but some of those publications which are the miracle of the age, and count their readers by myriads, should inform all whom it may concern, that the seller’s loud praises of the purchaser mean nothing—that they are like an advocate’s profession of his belief in the justice of his cause; or, to use a more poetical comparison, that they are like “the perjuries of lovers, at which Jove laughs, and orders the winds to bear them along, and dissolve them in their course.”*

The apothecary’s art, again, is an evil; and the manner in which it has been enforced of late is highly discreditable to the Company. This is one of the few cases in which the legislature can be of service to us: a simple repeal of the Act would relieve the profession from the disgraceful anomaly of being governed by a knot of traders, and leave it, as it ought to be, free as air.

This is the most essential point of all; and with this we conclude. Should the medical reformers of the day succeed in procuring an Act “for the more effectual suppression of unlicensed practitioners,” let them rest assured that such an Act must, and ought, to be ineffectual. The preventive police, by which irregular practitioners may be put down under despotic governments, would not be tolerated in England; and, to punish infringements of such an act by means of informers, could be done only by violating all the charities, and even all the decencies of life, and would be worse than the death of a hundred patients by scarifying liniments or Hygienic pills.

* — Perjuria ridet amantûm
Jupiter, et ventis virita ferre jubet.

COLLEGE OF PHYSICIANS.

The following note has been circulated, intended, we believe, as a reply to some observations recently made, on the College of Physicians, in the House of Peers :

1. The College of Physicians grants its license to practise within its jurisdiction to any man who has obtained the degree of Doctor of Physic in any university upon earth, after a residence of two years; and who, upon examination, proves his competency. This license enables him to receive the ordinary emoluments of physicians, makes him eligible to all public institutions, to become a lecturer and teacher at the great medical schools, and to hold the high offices of physician to their Majesties and the Royal Family.

2. The College of Physicians, however, having thus done justice to individuals seeking to practise as physicians within their jurisdiction, has thought itself at liberty to provide for the honour of the profession, by offering some inducement to those who are about to enter it, to obtain that previous education, which, in England, has always been esteemed the highest and the best: and the inducement consists in admitting, by preference, the Graduates of Oxford and Cambridge to the Fellowship of the College.

3. The Fellow of the College has no advantage whatever over the Licentiate, with reference to the public. He differs from the Licentiate only in belonging to the governing body of the College; and in this capacity he has certain duties to perform, and holds in rotation certain offices. Of these offices, those of President, four Censors, Treasurer, Registrar, and four Lecturers, receive emoluments. The emolument of the President is 25*l.* per annum; of each Censor, 20*l.* per annum; of the Treasurer, 25*l.* per annum; of the Registrar, 40*l.* per annum; of the four Lecturers, the two juniors receive 10*l.* each; the third, 20*l.*; and the senior, 32*l.*

4. But, although the College has held forth the little honour and profit of the Fellowship as an inducement to those who become physicians to obtain the previous education of an English University, it has elected into the Fellowship from time to time, and continues to elect, eminent individuals from among the Licentiates. *Med. Gazette.*

OXFORD MEDICAL DEGREES.

The following regulations regarding degrees in medicine have been lately issued by the University of Oxford, and are to come into operation after Trinity Term, 1834.

DE TEMPORE ET EXERCITIIS REQUISITIS AD GRADUS IN MEDICINA CEPASSENDOS.

Quoniam exercitia pro Gradibus in Facultate Medicinæ præstanda hisce temporibus minime conveniunt, placuit Academiæ abrogare Statuta (scil. Tit. VI. Sect. v. Gratiarum formulas Tit. IX. Sect. iii. §. 4. Juramenti formam Tit. IX. Sect. vi. §. 2 et Tit. IX. Sect. ix. §. 4. §. 5. §. 6.) et in eorum locum nova hæc Statuta subrogare.

§ 1. Quot anni, in studio Medicinæ ponendi, requirantur ad Gradum Baccalaurei in Medicina. Statutum est, quod unusquisque antequam Baccalaureatum in Medicina consequatur, examen publicum subeat inter eos Candidatos qui primum gradum in Artibus vel in Jure Civili petunt, et, post examen illud, Medicinæ studio per triennium integrum (scil. 12 Terminos) operam dedisse teneatur.

Magistris vero in Artibus, vel Baccalaureis in Jure Civili, licebit, (si modo examen subierint infra §. 3 sancitum,) Baccalaureatum in Medicina capessere;

cauto tamen nequis ad hunc gradum admittatur ante completos 28 Terminos a die matriculationis suæ computandos.

§ 2. *De Examinatione pro Gradu Baccalaurei in Medicina, et de Examinatoribus designandis, et juramento onerandis.* Statutum est, quod qui ad Baccalaureatum in Medicina promoveri cupit, priusquam ad supplicandum pro Gratia admittatur, examen subeat.

Huic igitur rei quo melius prospiciatur, Academiae placuit ut tres in Medicinae Facultate publici Examinatores constituentur; scilicet, Medicinae Professor Regius (cujus semper erit huic negotio præesse,) duo itidem ex Acad. Oxon. in Medicina Doctores, a Vice-Cancellario singulis Examinationibus nominandi, et deinceps a Domo Convocationis approbandi. Quod si Professor Regius propter, gravem aliquam causam absentiae veniam a Vice-Cancellario impetrauerit; alium quendam in Medicina Doctorem Vice-Cancellarius in ejus locum substituet.

Singuli autem Examinatores antequam munera sua adeant, coram Vice-Cancellario, exigente Seniore Procuratore, juramentum præstabunt in hæc verba; viz.

Domine Doctor, tu jurabis, quod munus et officium Examinatoris publici in Facultate Medicinae sedulo et fideliter pro virili exequeris, forma et modo per Statuta requisitis. *Resp. Juro.*

Item tu jurabis, quod, sepositis omni odio et amicitia, timore et spe, neque indigno cuius testimonium perhibebis, neque digno denegabis. *Resp. Juro.*

Item tu jurabis, quod nullo modo revelabis suffragium quod vel ipse tuleris, vel alius quivis Examinator tulerit, de testimonio alicui perhibendo vel denegando. *Resp. Juro.*

§ 3. *De tempore, loco et modo Examinationis.*—

Semel quolibet anno, videlicet Hebdomada secunda pleni Termini Trinitatis, Examinatio in Facultate Medicinae habeatur.

Huic Examinationi liceat Examinatoribus cum consensu Vice-Cancellarii locum aliquem idoneum assignare, modo ante Examinationem habendam triduo saltem de hac re Academiam certiosem faciant.

Instituatur examen in Theoria et Praxi Medicinae, in Anatomice, Physiologia, Pathologia, et Materia Medica, insuper in Chemia et Botanice, quatenus eæ disciplinæ Artem Medicam illustrare videantur. Examinatoribus liberum esto, quemlibet Candidatum vel in hisce universis, vel in aliqua parte harum (prout ipsis satius visum fuerit) examinare. Porro nunquam non adjiciantur veteres illi Scriptores, Hippocrates, Aretæus, Galenus et Celsus, quorum duo ad minimum in omni examine semper adhibentur.

Cujuslibet Candidati examen, partim viva voce, partim scriptis, peragatur, et quantum fieri poterit, uno decursu vel saltem sine diei intervallo, absolvatur. Omnes Examinatores uniuscujusque examini per integrum tempus intersint, nisi aliquid in scriptis præstandum sit, quo in casu unus tantummodo adesse teneatur.

Inter examinandum, aut Latino aut Anglicano Idiomate uti licebit, prout Examinatoribus magis expedire videbitur.

Peracta demum Examinatione, Examinatores de Candidatis singulis inter se judicium ferent, et quemcunque dignum invenerint, et testimonium perhibebunt sub hac forma:

A. B. [die mensis et anni] pro gradu Baccalaurei in Medicina examinatus, prout Statuta requirunt satisfecit nobis Examinatoribus.

Ita testamur } C. D. P. M. R.
E. F.
G. H.

Nomina quoque eorum qui Examinatoribus satisfecerunt in Registrum peculiare inserentur penes Registrarium Universitatis, finita quaque Examine, adservandum.

Quod si contingat aliquem hujusmodi Testimonio indignum reperiri, licebit illi in aliqua sequente Examine Candidatum se iterum profiteri.

Huic Examine interesse licebit omnibus Magistris in Artibus, Baccalaureis in Jure Civili, et quibuslibet superiore aliquo Gradu insignitis; necnon Baccalaureis in Artibus, si modo coram Professor Regio sponderint Medicinæ se operam duros. Sub eadem conditione licebit Juristis et aliis nondum graduatis, qui examen pro Gradu A. B. vel J. C. B. subierint, et qui quadriennium a die Matriculationis suæ compleverint, his Examinationibus interesse.

Unusquisque Candidatus examen subiturus, Professorem Medicinæ Regium hac de re certiore facere tenebitur decimo quarto die ad minimum ante Hebdomadam Examine habendæ destinatum. Quo quidem tempore, Professore in manus literas certificaras tradendas curabit, quibus se, apud quoddam melioris notæ Nosocomium, cum morbis curandis interfuisse, tum Lecturis audiendis diligentem operam dedisse, liquido constet. Nec Professore Regio licebit, literis Certificatoriis istis a majori parte Examinatorum non approbatis, aliquem ad examen subeundum admittere.

Cautum insuper esto ne quis se sistat examinandum, nisi qui septem annos (scil. 28 Terminos) a tempore matriculationis suæ compleverit.

§ 4. *De examinatoribus remunerandis.*—Statutum est, quod Candidatus unusquisque ante Examinationem inchoandam Professore Regio in manus deponet sex libras, ab eo, honorarii nomine, duobus reliquis, examinatoribus persolvendas. Ipse Professor feoda antiquitus imperata solus percipiat.

§ 5. *Quot anni, in studio Medicinæ ponendi, ad incipiendum in Medicina requirantur.* Statutum est, quod qui ad Doctoratum in Medicina promoveri cupit, post Gradum Baccalaurei in Medicina susceptum, per tres annos integros studio Medicinæ incumbat, priusquam ad incipiendum in eadem Facultate admittatur.

§ 6. *Exercitium pro Gradu Doctoris in Medicina præstandum.*—Statutum est, quod Baccalaureus in Medicina priusquam ad incipiendum in eadem Facultate admittatur, dissertationem a se conscriptam de thesi quavis Medica prius a Professore Regio approbata publice intra Scholarum præcinctus coram Professore Regio recitare, eique ejusdem dissertationis exemplar, finita lectione, tradere tenebitur.

Denique ad tollendam omnem dubitationem pronunciamus quod omnes qui in Medicina inceperint, eodem suffragandi jure gaudeant, ac si in Artibus aliquando rexissent.

§ 7. *De incorporandis sive Medicinæ studiosis, sive Graduatis.* Statutum est, quod unusquisque sive Graduat in Medicina, sive studiosus, ex alia Academia hic incorporandus, priusquam in matriculam hujus Academiae referatur, testimonia coram Vice-Cancellario exhibeat, quibus liquido pateat eum exercitia præstitisse omnia, quæ in sua Academia nondum Graduat pro Baccalaureatu in Artibus præstare tenentur. Cautum sit insuper nequis in Medicina Graduat incorporetur, nisi examen prius subierit, tempus compleverit, et reliqua præstiterit omnia, quæ per præsens hoc Statutum requiruntur.

SECTIO III.

§ 4. *Formulae speciales Gratiarum ad singulos pertinentium. Pro Gradu Baccalaurei in Medicina,*—Supplicat, &c. A. B. Magister [vel Baccalaureus] Facultatis Artium, [vel Baccalaureus in Jure Civili, vel Medicinæ studiosus.]

e Coll. (vel Aula) M. quatenus 28 Terminos a die matriculationis suæ compleverit; per triennium Medicinæ operam dederit, examen subierit, et reliqua omnia præstiterit, quæ per Statuta requiruntur, (nisi quatenus secum dispensatum fuerit,) ut hæc sibi sufficiant, quo admittatur ad lectionem cujuslibet libri Aphorismorum Hippocratis.

Pro Gradu Inceptoris in Medicina.—Supplicat, &c. A. B. Medicinæ Baccalaureus, e Collegio (vel Aula) N. quatenus post susceptum Gradum Baccalaurei in Medicina, tres annos in studio Medicinæ posuerit; dissertationem scripserit coram Professore recitaverit, et reliqua omnia præstiterit, quæ per Statuta requiruntur, (nisi quatenus secum dispensatum fuerit,) ut hæc sibi sufficiant ad incipiendum in eadem Facultate.

SECTIO IX:

§. 4. *De Qualitate eorum, qui ad Praxin in Medicina licentiandi sunt.* Statutum est, quod Doctor quilibet in Medicina, post inaugurationem seu admissionem suam, praticare licite poterit in omni medicandi genere. Alius vero nemo in Medicina publice praticare Oxoniæ permittatur, nisi Gradum Baccalaurei in Medicina susceperit, et a Cancellario sive ejus Commissario, et Congregatione Magistrorum Regentium, ad practicandum more consueto admissus fuerit. Chirurgiam vero nullus exerceat, intra præinctum Universitatis, nisi licentia a Cancellario sive Vice-Cancellario impetrata.

Quod si quis secus præsumserit, non solum ab ulteriore promotione repellatur, et privilegiis Universitatis privetur; sed etiam (si monitus non desistat) sicut perturbator pacis puniatur.

§. 5. *Formula petendi Licentiam ad practicandum in Medicina.*—Pro qualitate personæ supplicantis, in Gratia exprimentur, quæ ad hujusmodi licentiam necessario requiruntur, sub hac formula: Supplicat, &c. A. B. e Coll. [vel Aula] N., quatenus in hac Universitate Gradum Baccalaurei in Medicina susceperit, et chirographo vel professoris et unius alterius Doctoris in Medicina, vel trium quorumcunque Doctorum in Medicina, in Universitate residentium, approbatus fuerit; et reliqua præstiterit omnia, quæ per Statuta requiruntur, ut hæc sibi sufficiant ad practicandum in eadem Facultate per universam Angliam.]

Qua Gratia concessa et pronunciata, prout aliæ solent, Literæ etiam Testimoniales, de eadem fient, et (eodem modo quo testimoniales licentiæ ad prædicandum in Domo Congregationis ratæ habebantur) sigillo publico Universitatis munientur.

§. *Formula Literarum Testimonialum.*—Cancellarius, Magistri, et Scholares Universitatis Oxon. dilecto nobis in Christo A. B. Baccalaureo in Medicina e Coll. [vel Aula] N. intra Universitatem prædictam, salutem in Domino sempiternam. Cum omnia nostra studia, consilia, et actiones ad Dei gloriam et fratrum salutem referri debeant; cumque Medicina ad hæc, inter reliquas Facultates, plurimum conferat; hinc est, quod nos Cancellarius, Magistri, et Scholares antedicti (pro ea opinione, quam de scientia tua, vitæque ac morum integritate, habemus) liberam tibi, tenore præsentium, concedimus potestatem et facultatem practicandi in Medicina, et ea omnia faciendi, quæ ad eam spectant Facultatem, ubivis per universum Angliæ regnum, in perpetuum duraturum. Nos etiam Cancellarius, Magistri, et Scholares antedicti, testamur præfatum A. B. juramentum de primatu Regiæ Majestatis suscepisse, &c. prout supra, in forma licentiæ ad publice concionandum.

Placuit Academiæ ut hæc Statuta vim et vigorem suum non obtineant ante Terminum Trinit. 1834.

Interim antiqua exercitia rata permaneant.

De Statutis his rogandis consenserunt Collegiorum et Aularum Præfecti, et,

re mature perpensa, convenerunt in Terminos, die vicesimo sexto mensis Novembris; relata sunt in Domo Congregationis die vicesimo octavo mensis Novembris, juxta statuti in ea parte exigentiam, triduo ante Convocationem habendam; tandem in Convocatione publicata et confirmata die secundo mensis Decembris, anno Domini 1833.

STATUTES OF THE UNIVERSITY OF EDINBURGH, RELATIVE TO THE
DEGREE OF M.D. 1833.

Sect. I. No one shall be admitted to the examinations for the degree of doctor of medicine, who has not been engaged in medical study for four years, during at least six months of each, either in the university of Edinburgh, or in some other university where the degree of M.D. is given; unless, in addition to three *anni medici* in an university, he has attended, during at least six winter months, the medical or surgical practice of a general hospital, which accommodates at least eighty patients, and during the same period a course of practical anatomy; in which case, three years of university study will be admitted.

Sect. II. No one shall be admitted to the examinations for the degree of doctor, who has not given sufficient evidence—

1. That he has studied, once at least, each of the following departments of medical science, under professors of medicine in this or in some other university, as already defined, *viz.*

During courses of six months—Anatomy, chemistry, materia medica and pharmacy, institutes of medicine, practice of medicine, surgery, midwifery, and the diseases peculiar to women and children, general pathology, practical anatomy (unless it has been attended in the year of extra-academical study allowed by Sect. I.)

During courses of six months, or two courses of three months—Clinical medicine: that is, the treatment of patients in a public hospital, under a professor of medicine, by whom lectures on the cases are given.

During courses of at least three months—Clinical surgery, medical jurisprudence, botany, natural history, including zoology.

2. That, in each year of his academical studies in medicine, he has attended at least two of the six 'months' courses of lectures above specified, or one of these and two of the three months' courses.

3. That, besides the course of clinical medicine already prescribed, he has attended, for at least six months of another year, the medical or surgical practice of a general hospital, either in Edinburgh or elsewhere, which accommodates not fewer than eighty patients.

4. That he has attended for at least six months, by apprenticeship or otherwise, the art of compounding and dispensing drugs at the laboratory of an hospital, dispensary, member of a surgical college or faculty, licentiate of the London or Dublin Society of Apothecaries, or a professional chemist and druggist.

5. That he has attended, for at least six months, by apprenticeship or otherwise, the out-practice of an hospital, or the practice of a dispensary, or that of a physician, surgeon, or member of the London or Dublin Society of Apothecaries.

Sect. III. No one shall obtain the degree of doctor who has not studied, in the manner already prescribed, for at least one year previous to his graduation, in the university of Edinburgh.

Sect. IV. Every candidate for the degree of medicine must deliver, before the 24th of March of the year in which he proposes to graduate, to the dean of the faculty of medicine:

1st. A declaration, in his own handwriting, that he is twenty-one years of

age, or will be so before the day of graduation; and that he will not be then under articles of apprenticeship to any surgeon or other master.

2dly. A statement of his studies, as well in literature and philosophy as in medicine, accompanied with proper certificates.

3dly. A medical dissertation, composed by himself, in Latin or English; to be perused by a professor, and subject to his approval.

Sect. v. Before a candidate be examined in medicine, the medical faculty shall ascertain, by examination, that he possesses a competent knowledge of the Latin language.

Sect. vi. If the faculty be satisfied on this point, they shall proceed to examine him, either *viva voce* or in writing, first, on anatomy, chemistry, botany, institutes of medicine, and natural history, bearing chiefly on zoology; and secondly, on materia medica, pathology, practice of medicine, surgery, midwifery, and medical jurisprudence.

Sect. vii. Students who profess themselves ready to submit to an examination on the first division of these subjects, at the end of the third year of their studies, shall be admitted to it at that time.

Sect. viii. If any one, at these private examinations, be found unqualified for the degree, he must study for another year two of the subjects prescribed in section ii., under professors of medicine, in this or in some other university, as above defined, before he can be admitted to another examination.

Sect. ix. Should he be approved of, he will be allowed, but not required, to print his thesis; and, if printed, forty copies of it must be delivered before the 25th day of July to the dean of the medical faculty.

Sect. x. If the candidate have satisfied the medical faculty, the dean shall lay the proceedings before the Senatus Academicus, by whose authority the candidate shall be summoned, on the 31st of July, to defend his thesis; and finally, if the senate think fit, he shall be admitted, on the first lawful day of August, to the degree of doctor.

Sect. xi. The Senatus Academicus, on the day here appointed, shall assemble at ten o'clock A.M., for the purpose of conferring the degree; and no candidate, unless a sufficient reason be assigned, shall absent himself, on pain of being refused his degree for that year.

Sect. xii. Candidates for graduation shall be required to produce evidence of their having conformed to those regulations which were in force at the time they commenced their medical studies in a university.*

JAMES SYME,
Prof. of Clinical Surgery, Dean of Faculty of Medicine.

W. HAMILTON,
Secretary to the Senatus Academicus.

* Candidates who commenced their university studies before 1825 will be exempted from the fourth year of attendance (Sect. i), from the additional hospital attendance (Sect. ii. art. 3), from the necessity of a year's study in Edinburgh (Sect. iii.), and from any attendance on clinical surgery, medical jurisprudence, natural history, military surgery, practical anatomy, pathology, and surgery distinct from anatomy.

Those who commenced between 1825 and 1831 will be exempted from attendance on general pathology, and also on surgery distinct from anatomy.

Those who commenced between 1825 and 1833 will be required to attend only two of the following classes, viz. clinical surgery, medical jurisprudence, natural history, military surgery, practical anatomy.

And those who commenced before 1833 will be exempted from the attendance specified in Sect. ii., arts. 4 and 5.

N.B. The attendance on midwifery in an university (Sect. i. art. 1,) is required of all candidates.

INTELLIGENCE.

A List of Questions has been circulated, which the governors of hospitals, dispensaries, and infirmaries, are required to answer for the information of the Committee appointed by the House of Commons to inquire into the state of MEDICAL PRACTICE AND EDUCATION.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

To the Editor of the Medical Quarterly Review.

Sir: You will oblige me by informing your readers, that the next meeting of the British Association for the Advancement of Science will be held at Edinburgh in the week commencing Monday, September 8th, 1834.

JAMES YATES,
Secretary to the Council.

London, March 13th.

METEOROLOGICAL REGISTER,

FROM DECEMBER 1 TO FEBRUARY 28.

By Messrs. HARRIS and Co., Mathematical Instrument Makers, 50, High Holborn.

	Thermometer.		Barometer.		De Luc's Hygrometer.		Winds.		Atmospheric Variations.
	max.	min.	max.	min.	max.	min.			
1833.									
Dec. 1 to 7	56	41	29.91	29.29	82	75	W	WNW	fine, cloudy, sleet
14	56	34	.85	.10	83	76	NW	WNW	foggy, fine, rain
21	55	38	.90	.21	81	75	W	WSW	fine, rain, cloudy
1834.									
30	55	35	.90	.15	89	75	SW	WSW	showery, rain, fine
Jan. 1 to 7	51	37	30.03	.31	80	75	NNW	SW	cloudy, showery, rain
14	51	38	29.45	28.90	85	80	SW	SSW	fine, rain, cloudy
21	53	37	.80	29.16	83	78	SW	WSW	rain, cloudy, fine
31	57	34	30.15	.22	85	73	WSW	WNW	fine, rain, cloudy
Feb. 1 to 7	50	32	29.92	.80	82	75	SSW	W	foggy, cloudy, fine
14	46	31	30.20	.57	80	78	W	SW	foggy, rain, fine
21	50	32	.16	.75	79	72	WNW	WSW	fine, foggy, cloudy.
28	55	38	.25	.63	80	75	WSW	SW	
The quantity of Rain fallen in December, 2 inches and 60-100ths.									
— — — — — January, — 98-100ths.									
— — — — — February, — 27-100ths.									

NOTICES.

We have received Dr. PROUT'S Bridgewater Treatise, Dr. MARSHALL HALL on Diagnosis, Dr. BOW on Inflammation, Mr. KIERNAN on the Liver, Mr. DALRYMPLE on the Eye, a Pamphlet on Medical Education and Reform, by a Licentiate of the College of Physicians, and Dr. RAMADGE on Consumption. We shall review them in our next.

We have also received a new work by Mr. PERCIVAL, entitled "Hippopathology." It does not fall within our plan to review it, but we shall give an extract or two from it in the Collectanea of our next Number.

Mr. VALENTINE, and Mr. Wm. TAYLOR, will find the substance of their Communications in our Collectanea.

We must request our Contributors to favour us with their Communications before the 16th of the month preceding publication.

"Literary Intelligence," or, in other words, advertisements of books about to be published, can appear only in our Advertising Sheet.

ERRATA.

In last Number, p. 300, line 18, for "inexpediency," read "expediency."

THE
MEDICAL
QUARTERLY REVIEW.

REVIEWS.

Pathological and Surgical Observations on the Diseases of the Joints. By B. C. BRODIE, V.P.R.S., Serjeant Surgeon to the King, and Surgeon to St. George's Hospital. *Third Edition.* London, 1834. 8vo. pp. 344.

SCIENCE, like history, has its epochs. The eras of history commemorate the foundation or destruction of empires, by the arms of conquerors or the machinations of statesmen: those of science relate only to the establishment of truth and the overthrow of error, through the inspirations of genius or the labours of industry. The former record the progress of mankind from barbarism to civilization; the latter are the registers of the advancement of the human mind from ignorance and imbecility to a state of vigour and intelligence. The historian avails himself of the former as points of sight, from which he may survey and classify past events; they serve, like that "exceeding high mountain," whence were seen the kingdoms of the world, and the glory of them, to enable him to compare their various policy, and their relative degrees of prosperity. The philosopher considers the latter not only as landmarks in his course, but as spots where he may conveniently repose to reflect on his acquisitions, and rejecting, as impediments to his progress, whatever time has shown to be unsound, may dispose all that he has ascertained to be truth so that it shall be useful to him in his subsequent inquiries.

The appearance of Mr. Brodie's papers in the *Medico-Chirurgical Transactions* formed an epoch in our knowledge of diseases of the joints, and the publication of his third edition, enriched with the experience of twenty years' extensive practice, may with propriety be accounted as another.

As Mr. Brodie's discoveries constitute nearly the Alpha and Omega of our information on this subject, a running commentary on the alterations to be found in the present edition will put us most readily in possession of all substantial improvements; more especially as his candour (always an accompaniment of real merit,) does not fail to appreciate the labours of others, and to award to them that credit to which they are entitled.

Another advantage will accrue from the plan which we propose. There is not a more healthy discipline for the mind than to follow the master-spirits of the world in their researches after truth,—to trace in their company the innumerable windings of that labyrinth in which she is concealed,—to observe with what steadiness they pursue her when once she is discovered, and with what judgment they throw aside the errors with which she is encumbered,—and to witness the struggles by which they draw her from her hiding-place, to exhibit her in all her simplicity and beauty, for the instruction of mankind. Such occupation, in such society, awakens all the powers of the mind, and gives a right tendency to its energies;—instructs it in the signals which indicate the proximity of truth, and renders it familiar with its presence;—accustoms it to oppose the difficulties in its course, and prepares it for setting out single-handed on its own investigations.

There is no science which requires such a discipline more imperatively than surgery, since in it we have no lucky chances or fortunate discoveries, observation and cautious induction being the only methods of prosecuting it with success; and there are no works from which better tuition in these respects may be obtained than from the writings of Mr. Brodie: for, during our comparison of the different editions, we have been struck with his great caution in the admission of any new views, or any modifications of old opinions. We meet with no hasty generalizations, founded on a limited experience, or on a partial consideration of his subject. He revolves each notion in his mind, till convinced not only of its general correctness, but of the accuracy of its minutest details, and then, and not till then, does he bestow on it the approbation of his judgment. Neither do we find in his works any silly remarks about not troubling his readers with cases: in the hands of this powerful alchemist, what others reject as dross is converted into the purest gold. His cases are introduced into every portion of the treatise. Does he wish to describe pathological appearances? a case provides him with the means:—is he about to detail a train of

symptoms? it is to a variety of cases that he has recourse. Like the pillars in the temple of Esculapius, they not only record the individual cures which he has performed, but constitute an integral part of that fabric which they at once support and adorn.

But we shall not detain our readers with any more of our remarks, lest they should feel towards us as we have occasionally felt towards the utterers of a long grace before meat; but proceed, without further delay, to set before them the rich entertainment which the author has provided.

The present edition has been greatly enlarged, there being only two chapters that have not undergone some alteration. Many new facts have been introduced, and the descriptions of symptoms have, in some instances, been considerably amplified. The treatment has also received some slight modifications, principally consisting in stricter injunctions as to the preservation of absolute rest, and in the adoption of additional constitutional remedies. Besides these alterations, a new chapter has been inserted on malignant diseases of the joints, and that which treats of various other affections of the articulations has been entirely remodelled. There are, however, no important changes in the pathological arrangements, and we must confess that it was with no small pleasure that we perused the announcement of this fact in the introduction; for, though we are not accustomed, "jurare in verba magistri," yet, such is our respect for Mr. Brodie's judgment, that, had he found occasion to alter his opinions, we should have expected to have had much to unlearn.

The first section, on the *Pathology of Inflammation of the Synovial Membranes*, remains without any alteration till towards the conclusion, where the author is speaking of the occurrence of suppuration in joints without ulceration. The deposition of pus in the different textures of the body has of late been very carefully investigated, and the circumstances under which it is liable to take place are now much better understood than at the period of the publication of the second edition. Mr. Brodie, even at that time, had noticed that this species of suppuration occasionally existed, though he believed that it was only to be found after accidents, or after long-continued or violent inflammation. He is, however, now convinced that such depositions are by no means of unfrequent occurrence, especially in hospital practice; that they are the consequence of a peculiar morbid state of the system generally, following severe accidents or operations, but occasionally met with when the inflammation has not had its origin in any mechanical injury. He enters into no

disquisition as to the method in which these deposits are formed, not even so much as to state whether he is a partisan of the theory which supposes them to depend on the absorption of the veins, or of that which attributes them to the agency of the nerves. We may however gather, from his use of the term deposit, that he rejects the simple hypothesis of Dupuytren, viz. that the patient, enfeebled by long illness, is readily affected by exposure to cold, and that the perspiration being suddenly checked, inflammation, of the kind which speedily terminates in suppuration, attacks some of the internal parts. Referring the reader who may be anxious for information on the subject to the papers of the late Mr. Rose and Mr. Arnott, in the *Medico-Chirurgical Transactions*, the author contents himself with the statement of the facts, and proceeds to detail the following case, in which the secretion of the inflamed synovial membrane was tinged of a dark reddish colour, in the manner mentioned by the latter writer.

“ Henry Payne, thirty-nine years of age, was admitted into St. George’s Hospital, under the care of Mr. Hawkins, on the 7th of October, 1829.

“ He had suffered, formerly, from repeated attacks of rheumatism.

“ About twelve weeks ago, after exposure to damp and cold, he was seized with inflammation in nearly all his joints. In the course of a few days, the disease in the other joints had abated; but the right knee became more painful and swollen. At the time of his admission, this knee was tender, painful, and much distended with fluid, and there was a good deal of febrile excitement of the system.

“ Blood was taken from the neighbourhood of the knee by cupping; and this was followed by the application of blisters. The *vinum colchici*, and afterwards calomel, combined with opium, were administered internally. Under this treatment the pain and swelling of the knee subsided.

“ On the 27th of October, he was attacked with severe inflammation of the fauces and larynx; which, however, soon yielded to the remedies employed.

“ On the 31st, he complained of severe pain in the right side, with great difficulty of breathing; and on the 3d of November he died.

“ On examining the body after death, the pleuræ were found inflamed, and incrustated with lymph, and serum had been effused into that of the right side. The lungs also were inflamed, and some portions of them were in a state of gangrene. The heart was affected with hypertrophy, and the pericardium was inflamed with flakes of lymph adhering to it. The synovial membrane of the right knee was full of a dark-coloured fluid; not purulent, but having the appearance of a thick synovia, tinged with blood. The syno-

vial membrane was everywhere of a red colour, as if stained by this secretion, and the cartilages of the joint had the appearance of having been stained in the same manner. There were some small extravasations of blood in the cellular membrane external to the joint." (P. 14.)

In detailing the symptoms of inflammation of the synovial membrane, Mr. Brodie has enlarged upon the characteristics of this affection in the shoulder and hip-joints. The former may be recognized by the swelling of the shoulder at the onset of the disease, and by the crackling, on the motion of the limb, from the effusion of fluid into the neighbouring bursæ. In the latter stages of the malady, the affected joint appears smaller than the other, from the wasting of the deltoid muscle. When this disease attacks the hip-joint, there is some little difficulty in distinguishing it from incipient ulceration of the cartilages. The violence of the pain was only a term of comparison, and in many cases it might be doubtful whether it had not reached the severity required to denote the more serious form of disease. We are, however, now supplied with a diagnostic symptom, which may be readily detected, and which clearly points out the nature of the affection. It is well known that, in the ulceration of the cartilages of the hip-joint, the pain is always referred to the knee; not so in the inflammation of the synovial membrane: the patient, in the latter, always complains of pain in the upper and inner part of the thigh, immediately below the origin of the abductor longus muscle. This symptom, with the aid of others formerly recognized, as pain on the motion or extension of the joint, and the absence of pain on the pressure of the articulating cartilages against one another, will henceforth render the diagnosis comparatively easy.

Another fact mentioned by the author, independent of its intrinsic importance, possesses some interest from its having been known to the surgeons of former days, though of late it has been neglected, and, we believe, its possibility has been denied. Petit, in his "*Traité des Maladies des Os*," when enumerating the internal causes of dislocation, states, "Il y en a qui sont causées par la sinovie, qui chasse la tête de l'os de sa cavité;" and again, more clearly, "L'amas de la sinovie chasse les os de leur boîte ou cavité; cette liqueur à mesure qu'elle s'accumule éloigne peu à peu la tête de l'os de sa cavité, ce qui est cause de luxation, et souvent d'anchilose."

Sir Astley Cooper has omitted this cause of secondary dislocation, though he has mentioned all the others; and we therefore conclude that he does not believe in its existence.

Mr. Brodie, however, has no doubt that dislocation sometimes arises from this cause; and he not only furnishes us with an explanation of the mode in which it happens, but relates the case of a young gentleman in whom it occurred.

At the conclusion of the section, the author recounts the various modifications of which inflammation of the synovial membrane is susceptible; but, as this summary is replete with original and highly valuable matter, and at the same time is narrated so concisely that it would be difficult to abridge, we shall quote it in his own words.

“It is to be supposed that the character which inflammation of the synovial membrane assumes must, in a great degree, depend on the peculiar constitution of the patient. It is, however, modified by a variety of other circumstances.

“I have already observed, that the symptoms are, for the most part, more severe, and that there is a greater disposition to terminate in the effusion of coagulated lymph, and thickening of the synovial membrane, where the inflammation is strictly local, than where it is the result of some disease affecting the general system.

“In syphilitic cases, it seldom happens that more than one or two joints are affected at the same time. In the early stage of syphilis, the inflammation is usually an accompaniment of a papular eruption or lichen; there is then but little pain; fluid is effused only in small quantity; and when this has become absorbed, the joint is restored as nearly as possible to its original condition. In the more advanced stage of syphilis, we find it existing in combination with nodes: and here it is productive altogether of much more inconvenience to the patient; is more difficult to be relieved; and the synovial membrane is left thickened, and the joint somewhat larger than natural, after the fluid has disappeared. In cases of the last description, it is often impossible to determine, whether the disease can with most reason be attributed to the agency of the syphilitic poison, or to the repeated exhibition of mercury.

“In cases of rheumatism, several joints are frequently affected, either at the same time, or in succession: and the synovial membranes which constitute the bursæ mucosæ and sheaths of the tendons often participate in the disease. There is usually a good deal of pain and swelling, and the joints are often left stiff and enlarged afterwards. Where the inflammation is connected with gout, the pain is generally out of all proportion to the other symptoms of inflammation; and the patient compares his sensations to those which might be supposed to arise if the joint were compressed by a vice, or if it were violently torn open.

“There is a remarkable, yet not uncommon form of the disease, which may be considered as bearing a relation to both gout and rheumatism, but differing from them, nevertheless, in some essential circumstances. The synovial membrane becomes thickened, so as to occasion considerable enlargement of the joints, and stiffness,

there being at the same time but little disposition to the effusion of fluid. In the first instance, the disease is often confined to the fingers; afterwards it extends to the knees and wrists; perhaps to nearly all the joints of the body. Throughout its whole course, the patient complains of but little pain; but he suffers, nevertheless, great inconvenience, in consequence of the gradually increasing rigidity of the joints, and the number which are affected in succession. The progress of the disease is usually very slow, and many years may elapse before it reaches what may be regarded as its most advanced stage. Sometimes, after having reached a certain point, it remains stationary, or even some degree of amendment may take place: I do not, however, remember any case in which it could be said that an actual cure had been effected. The individuals who suffer in the way which has been described, are, for the most part, those belonging to the higher classes of society, taking but little exercise, and leading luxurious lives: but there are exceptions to this rule, and the disease occasionally occurs in hospital practice; in men, and even in females, of active and temperate habits." (P. 24.)

The only objection which we can raise to this section on the symptoms of inflammation of the synovial membrane is, that even yet it is not long enough: we would much rather have been supplied with a description of the symptoms of the deposition of pus in the joints from the graphic pen of Mr. Brodie, than have been referred to the papers of Messrs. Rose and Arnott, however highly we may esteem their labours.

We shall now follow our author to the treatment of this disease. In his former editions his principal attention was bestowed on the local treatment, but he has now favoured us with the following directions as to the constitutional remedies to be employed in such cases.

"In cases in which inflammation of the synovial membrane is connected with rheumatism, those remedies may be employed with advantage which are useful in relieving rheumatism in other textures, such as opium combined with ipecacuanha, or other diaphoretics; preparations of the colchicum autumnale, and mercury. Of the two latter, I have found reason to believe that the colchicum is to be preferred, where several joints are affected, and where the synovial membranes which constitute the bursæ mucosæ and sheaths of the tendons participate in the disease. In such cases, the wine of the root of colchicum may be administered in doses varying from fifteen to thirty minims, three times daily, or, in some instances, the acetous extract of colchicum may be given in alterative doses of two or three grains every night. On the other hand, mercury is preferable where only one or two joints are affected at a time, but where there has been a manifest translation of the dis-

ease, either from some internal organ, or from one joint to another, the form of mercury most generally useful, under these circumstances, is that of calomel combined with opium; and it should be administered in such doses as to affect the gums, or to produce some other indication of its action on the general system.

“In those cases in which the patient complains of an excruciating grinding pain, or of a sensation as if the joint were torn open, and in which I have already stated that the disease probably bears some relation to gout, the relief produced by the exhibition of colchicum is even more remarkable than in cases of rheumatism; being, in some instances, almost immediate, after leeches and other remedies have been employed to no purpose.

“Where inflammation of the synovial membrane arises from syphilis, it will probably disappear under a well-regulated course of mercury; and where it seems to have arisen from the protracted or injudicious use of mercury, or from mercury acting on a peculiar constitution, sarsaparilla may be given with advantage. This last medicine is especially useful where the affection of the joints occurs in combination with diseases of the bones and periosteum.

“In cases of that peculiar chronic disease, which is described in the concluding part of the last section, in which many joints, and sometimes nearly all the joints of the extremities, are affected in succession, it is of importance that the greatest attention should be paid to the general health, so that it may be maintained in as good a state as possible. As long as he is capable of doing so the patient should take sufficient exercise, daily, to induce a moderate degree of perspiration; he should live on a simple diet, avoiding especially raw fruit and acids, and whatever is not of easy digestion; and taking fermented liquors only in small quantity. The bowels should be kept gently open by means of rhubarb, or compound decoction of aloes, or some other of the same class of aperients. It has appeared to me also that, in these cases, patients have derived benefit from the use of acetous extract of colchicum, exhibited at intervals of six or eight weeks, for ten or twelve successive nights, in small or alterative doses; and still more from the long-continued use of alkalis. The carbonate of potash usually agrees with the stomach better than the pure potash. Ten or fifteen grains may be given twice daily, in the middle of the day and evening, and continued, with occasional brief intermissions, for many months.

“But specific remedies are applicable to only a limited number of cases. For the most part, the disease is to be subdued by being treated as a simple local affection, and in no instance is such kind of treatment to be altogether neglected.” (P. 28.)

Our readers will have noticed the frequent use of the word colchicum in the above extract. Mr. Brodie seems, indeed, to place great reliance upon its efficacy, and we have therefore no doubt that he has found it extremely serviceable.

But it must be remembered that of late years much of Mr. Brodie's experience has been amongst the higher ranks of society, of whose order gout is as much the prerogative as champagne and a carriage. It may therefore be doubted whether his practice is not modified in some degree by the change in the constitutions of his patients, and whether, amongst the lower orders, opium, sarsaparilla, and slight tonics, will not be found more serviceable than so debilitating a remedy as colchicum.

In former times, when diseases of the joints were attributed to acrimony of the synovia, it was recommended by Mr. Freke that an incision should be made into the joint, in order to prevent the pernicious consequences of its accumulation. The experience of surgeons soon led them to abandon this fatal practice: it was soon discovered that the admission of air into the cavity of an articulation was speedily followed by caries and abscess.

It has, however, been proposed of late to puncture the knee-joint, when much distended with fluid; and Mr. Brodie, with whom, we believe, the operation, as it is at present practised, originated, thus details the result of his experience as to its safety and advantages; and the circumstances, both in its favour and against it, are so justly stated, that his opinion probably approaches very closely to the truth.

“ 1st. In a thin person, if a few punctures be made with an instrument a very little broader than a couching-needle, by means of an exhausted cupping-glass applied over the punctures, a large quantity of fluid may be easily abstracted without the smallest danger, and with no inconsiderable relief to the patient. But, while inflammation exists, the relief is not permanent, the fluid being rapidly regenerated; so that in a day or two, or perhaps in a few hours, the swelling is as large as ever. If, on the other hand, the inflammation be already subdued, the absorption of the fluid usually goes on so rapidly, that any more expeditious method of removing it is unnecessary. 2dly. If suppuration has taken place in the joint, (not in consequence of ulceration, but from the surface of the synovial membrane,) a free opening made into it with a lancet will often be attended with the best effects. I have known, under such circumstances, ankylosis to become established almost immediately, and the patient to obtain a speedy cure with an ankylosed joint. The most prudent method of proceeding is to make a puncture with a needle first, and allow a small quantity of fluid to escape, so as to ascertain its nature. If it be not simply turbid serum, but actual pus, the lancet may be used afterwards.” (P. 32.)

Mr. Brodie insists at some length upon the importance of rest in this, as in all affections of the joints; not only of that

passive rest, which consists in keeping the limb quiet in bed, but of such support as may be derived from appropriate bandages. His description of those which he employs will be found in another part of this review, where we shall enter more fully into the subject of the different means of procuring absolute rest.

Every surgeon must have experienced the annoyance of a stiff joint after the occurrence of inflammation of the synovial membrane; and, if we may judge from the general tone of our author's expressions, and from the ingenuity which he has displayed in his search for a variety of remedies, we should conclude that his opinion of the probability of a perfect recovery is now more unfavourable than formerly. The means which he formerly recommended were frictions with dry powder, or with mercurial ointment and camphor, and the employment of a warm douche bath; to these he has now added the use of blisters and the vapour bath. He has likewise known much "benefit to arise from the use of moxa, in the way recommended by Mr. Boyle: that is, the application of it being so managed, that the heat should penetrate into the soft parts without making an eschar, and scarcely making a blister." In speaking of friction, Mr. Brodie adds this highly useful caution:

"It is, however, a remedy which is applicable only under certain circumstances. We must always bear in mind that friction is useful in relieving some of the effects of disease, but not disease itself; and those who recommend it without attention to this principle, in these and in other cases, will often find it to be productive of very injurious consequences." (P. 38.)

Two additional cases of this affection are introduced; one (to which we formerly alluded,) to exemplify the consecutive dislocation of the hip, and the other to illustrate the good effects of puncturing the knee-joint, and of the exhibition of mercury.

Before we leave this section, we must advert for a moment to one portion of it, which, as it is to be found in the second edition, most of our readers must remember: we mean those cases in which disease of the joint accompanied or followed a purulent discharge from the urethra. We observe that Mr. Brodie always describes this discharge either as "resembling gonorrhœa," or simply "as a purulent discharge;" and in one instance he mentions "that the patient attributed the discharge to the infection of gonorrhœa." We are not certain whether these expressions have been employed accidentally, or whether they indicate the author's doubts as to the

occurrence of inflammation of the synovial membranes as a consequence of gonorrhœa. We can scarcely believe the latter, since, in our own experience, (limited indeed, when compared with Mr. Brodie's,) several cases in which this has distinctly taken place have come under our observation. In one instance, the gentleman had been under our care for three weeks with a gonorrhœa, of the nature of which there could be no doubt, when he was attacked with inflammation of the synovial membrane of the right knee, which yielded to the treatment recommended by the author, viz. rest, the application of leeches, and the use of colchicum.

The chapters on *Ulceration of the Synovial Membrane*, and of *the Morbid Change of its Structure*, remain as in the former edition; we shall therefore pass over them, to the *Pathological Observations on Ulceration of the Articular Cartilages*. In the following sentences, the various causes of this disease are concisely stated.

“ 1st. It may be the consequence of disease originating in the neighbouring soft parts, especially of inflammation of the synovial membrane; examples of which will be found among the cases related in the preceding chapters.

“ 2dly. It may depend on a morbid condition of the cartilage itself; or,

“ 3dly. On a chronic inflammation of the surface or substance of the bone with which it is connected.

“ 4thly. It may be the result of a peculiar alteration in the condition of the cancellous structure of the bones, which is met with in young scrofulous persons.” (P. 95.)

In the former edition no mention was made of ulceration of the cartilage occurring as a secondary disease, the primary disease having had the character of rheumatic inflammation of the periosteum and bone. The following case so well exemplifies its progress, and the morbid appearances after death, that we quote it at full length.

“ Sarah Holder, twenty-two years of age, was admitted into St. George's Hospital, on the 26th of July, 1827, with a diffused swelling extending from the upper part of the right thigh to the leg, a little below the knee. The swelling was most conspicuous in the immediate neighbourhood of the knee-joint; and from thence gradually became diminished, having no defined termination either above or below. It was somewhat elastic, the skin over it appearing glossy and tense, but not redder than natural. The patient complained of exquisite pain, especially on pressure. The pain was also aggravated by every motion of the knee, nevertheless it was principally referred, not to the joint itself, but to the thigh-bone immediately above it. In addition to these local symptoms, the

pulse was frequent; the tongue furred, and rather brown; the skin hot; and the countenance anxious, and expressive of much suffering. The condition of the patient was altogether a good deal similar to that which might be produced by severe rheumatic inflammation of the bone and peritoneum; and the history of the case seemed to justify the opinion that such was the nature of the disease, as the symptoms had begun without any precursory rigor on the day previous to her admission, and had been preceded, for an entire month, by rheumatic pains in the elbows and shoulders.

“Saline and antimonial medicines were exhibited: leeches were freely applied to the limb, and on the 28th of July, a pill, containing two grains of calomel and half a grain of opium, was exhibited twice daily. Under this treatment the gums became slightly affected, and the symptoms gradually abated. On the 3d of August, the mercurial pill was given only once daily; and, in the course of a few days more, it was altogether discontinued, blisters being at the same time applied to the limb.

“August 13. The swelling and pain had entirely left the upper part of the thigh; but there were still some remains of both in the immediate neighbourhood of the knee. Altogether, she was in a much better state with respect to the local symptoms, and the general health was improving.

“August 15. After an accidental exposure to cold, she had a rigor, followed by fever; and, at the same time, there was a recurrence of pain and swelling in the neighbourhood of the right knee, with some degree of pain and tenderness extending up the thigh, and down the leg. The swelling had the same character as formerly.

“August 20. She continued in nearly the same state, with painful startings of the limb, and perspirations at night. Pulse very frequent. She was directed to resume the use of calomel and opium.

“September 2. There was no material improvement as to the local symptoms: a blister was applied to the knee.

“She continued in nearly the same state, sometimes a little better, sometimes a little worse, with a very frequent pulse, and the general health, on the whole, declining, until the 7th of October; when an issue was made with caustic in the neighbourhood of the knee. The issue seemed to occasion some abatement of the local symptoms. Her bodily powers, however, continued to decline, and she became affected with an ulcer over the sacrum, the result of long-continued pressure.

“October 14. She complained of severe pain in the left shoulder.

“October 15. She was seized with a vomiting and purging, accompanied with pain and tenderness of the abdomen and cold extremities. Pulse 140. At midnight she had a severe rigor.

“The vomiting and purging continued, in spite of the remedies

which were employed. In the afternoon of October 16, she had another rigor, and in about two hours afterwards she expired.

“On examining the body, the knee-joint was found to contain neither pus nor synovia. The cartilage of all the bones which enter into the composition of the joint were ulcerated in several places, especially that of the inner condyle of the femur. A slight extravasation of blood had taken place into the cavity of the joint, apparently from the surfaces of the bone exposed in consequence of the ulceration of the cartilages. The periosteum could be easily peeled off the surface of the femur, and the bone underneath appeared to be more vascular than is natural. The stomach was distended with an acid fluid of a green colour, similar to what had been vomited on the day preceding death. The gall-bladder was full of a very pale yellow fluid. There were no other morbid appearances.

“The left shoulder, to which pain had been referred for a short time previous to death, was carefully examined, but no disease was detected in it.” (P. 119.)

A case of the same nature is related in a subsequent part of the work, which terminated successfully, under the use of calomel, and the employment of a caustic issue.

In the history of the symptoms of ulceration of the cartilages, there are only a few verbal alterations, which we must omit, in order to bestow more attention upon the treatment of these affections. The only additions to the constitutional remedies are a full course of sarsaparilla, in such cases as are connected with a chronic inflammation of the bone in the neighbourhood, and the employment of mercury in that secondary form of the disease to which we have before adverted. Mr. Brodie is still in the habit of employing caustic issues, and other counter-irritants, locally, and speaks in the same decided manner of their utility in this form of the disease. But the great sheet-anchor to which he attaches the most importance, is rest. His directions on this subject are copious, but so valuable to the practical surgeon, that we shall quote them without abridgment. We shall at the same time introduce his account of the various bandages which he habitually employs for preventing the motion of the joints affected with inflammation of the synovial membrane.

“When the cartilages of the hip are ulcerated, the patient should be confined to his bed or couch, being never allowed to move from it on any occasion. If left to himself, he is generally inclined to lie on the side opposite to that of the disease. There are, however, good reasons why this position should be avoided, if possible. It necessarily distorts the pelvis, and increases the disposition to a lateral curvature of the spine. It also, in those cases in which the round ligament of the joints is destroyed, facilitates the escape of

the head of the femur from the acetabulum, and the production of dislocation. Something may be done towards preventing this last effect, by interposing a pillow, or thick cushion, between the knees; and it is difficult to do more than this, after the patient has already been lying on his side for a considerable time: otherwise he should be placed on one of the bedsteads invented by Mr. Earle, lying on his back, with the shoulders and thighs somewhat elevated, and the latter as nearly as possible parallel to each other. This supersedes the necessity of having recourse to splints and bandages, and, with a view to the confinement of the hip-joint, is all that is required in the early stage of the disease.* At a later period, when, in consequence of the extensive destruction of the articulation, the muscles begin to cause a shortening or retraction of the limb, I have found great advantage to arise from the constant application of a moderate extending force, operating in such a manner as to counteract the action of the muscles. For this purpose an upright piece of wood may be fixed to the foot of the bedstead, opposite the diseased limb, having a pulley at the upper part. A bandage may be placed round the thigh above the condyle, with a cord attached to it, passing over the pulley, and supporting a small weight at its other extremity. I will not say that the effect of such a continuance is to prevent the shortening of the limb altogether; but I am satisfied that it will, in a number of instances, render it less than it would have been otherwise, at the same time preventing, or very much diminishing that excessive aggravation of the patient's sufferings with which the shortening of the limb is usually accompanied." (P. 145.)

"Of the above observations on the ulceration of the cartilages of the hip, many are applicable to the disease in other joints.

"In all cases it is indispensable that the parts affected should be kept in a state of the most complete repose, and this is to be accomplished by various means, accordingly as one or another joint is the seat of the disease. In some instances, when the disease is in the knee, or ankle, or tarsal joints, nothing can be done better in the first instance than simply to lay the joint on an air-pillow, which, if not much distended with air, gives an uniform, regular, and most convenient support on every side; but, for the most part, it is better to have recourse to splints made of paste-board, or stiff leather, neatly moulded to the figure of the limb. When the disease is in the shoulder, the forearm should be supported by a light leathern coat, suspended from the waist or neck, and the arm should be kept constantly bound to the side; and when it is in the ankle, great advantage will often arise from the patient wearing a common wooden leg, which will enable him to

* "On some occasions, however, it is convenient to fix the pelvis by a strap or bandage, passing over it, from one side of the bedstead to the other; and even the thigh may be fixed in the same manner."

take exercise for the maintenance of his general health, without aggravating the local disease." (P. 153.)

"If the disease be far advanced, and there is danger of the cartilages being ulcerated, he will find it prudent to restrain the motions of the joint altogether, by the application of pasteboard splints, confined by a roller, or even by circular stripes of adhesive plaster on their outside. In other cases, the bandages, &c., recommended by Mr. Scott, in his ingenious work on the diseases of the joints, will be productive of the best results.* There is a bandage which is very well suited to cases of this kind, which, in one part of its circumference, is composed of a stiff leather, elsewhere of an elastic material, and secured by a lace or buckles, so that it admits of being secured with any degree of tightness. If the seat of the disease be in the knee, there may be a single piece of leather, adapted to the shape of the posterior part of the limb; if it be in the elbow, there may be a double piece of leather, one on each side, and thus the construction of it may be varied so as to adapt it to any of the other articulations. In some instances much support may be wanted, and the leather should be stiff and unyielding; extending a considerable way above and below the joint. In others, where little support is necessary, the leather may be more pliant, and it should not extend beyond the immediate neighbourhood of the part affected." (P. 36.)

In the above passage Mr. Brodie alludes to Mr. Scott's method of bandaging; and, as all of our readers must have heard of that gentleman's success, though they may not be acquainted with the means which he employs, we shall quote his account of them, from his work on *Diseases of the Joints*.

"In the first place, the surface of the joint, suppose the knee, is to be carefully cleansed by a sponge, soft brown soap, and warm water, and then thoroughly dried; next, this surface is to be rubbed by a sponge soaked in camphorated spirit of wine, and this is continued a minute or two until it begins to feel warm, smarts somewhat, and looks red. It is now covered with a soft cerate, made with equal parts of *Ceratum Saponis* and the *Unguent. Hydr. fort. c. Camph.* This is thickly spread on large square pieces of lint, and applied entirely around the joint, extending for at least six inches above and below the point at which the condyles of the femur are opposed to the head of the tibia: over this,

* "A very convenient mode of applying bandages in these cases is as follows: Let it be supposed that the disease is in the knee. Circular stripes of leather, spread with the *Emplastrum Plumbi*, are to be applied round the joint, and extending some way above and below it; care being taken that a space is left for the patella, on which there ought to be as little pressure as possible. Over this a calico roller (four or five yards for an adult,) may be applied, and over this again a few circular stripes of linen, spread with adhesive plaster, with another calico roller over the whole. A bandage of this kind, carefully adjusted, may not require to be changed for six or eight weeks, and is very convenient to the patient."

to the same extent, the limb is to be uniformly supported by stripes of calico spread with the Empl. Plumbi of the London Pharmacopœia. These strips are above one inch and a half broad, and vary in length: some are fifteen inches, others a foot, others half these two lengths, and the shorter or longer are selected according to the size of the part round which they are to be applied. This is the only difficult part of the process. This adhesive bandage ought to be so applied as to preclude the motion of the joint, prevent the feeble coats of the blood-vessels being distended by the gravitation of their contents in the erect posture, and thereby promote their contraction. Over this adhesive bandage, thus applied, comes an additional covering of Empl. Saponis, spread on thick leather, and cut into four broad pieces; one for the front, the other for the back, the two others for the sides of the joint. Lastly, the whole is secured by means of a calico bandage, which is put on very gently, and rather for the purpose of securing the plaster, and giving greater thickness and security to the whole, than for the purpose of compressing the joint. This is an important point, as otherwise an application, which almost invariably affords security and ease, may occasion pain, with all its attendant mischief." (*Scott on Diseases of the Joints*, pp. 133—135.)

We observe, in page 142 of Mr. Brodie's book, that he attributes the utility of Mr. Scott's plan of treatment to its maintaining the diseased joint in a state of absolute immobility; and we have no doubt that, if it did not do this, it would be utterly useless: but, on the other hand, we agree with Mr. Scott, that the constant excitation of the cutaneous vessels, and their exposure in this state to a powerful mercurial preparation, cannot be without its advantages. It must contribute to the absorption of the lymph effused in the neighbourhood of the diseased joint, and thereby put the vessels of the part into a more healthy condition; while, at the same time, it acts as a counter-irritant, in checking any chronic inflammation that may be going on within.

The section on *the Pathology and Symptoms of Scrofulous Disease of the Joints, arising in the Cancellous Structure of the Bone*, has been improved by the insertion of an additional case, and by an excellent description of the peculiar form of the swelling characteristic of this affection of the superficial joints. In speaking of the use of counter-irritants in this disease, Mr. Brodie states that he has known them of some service in certain instances of disease of the hip, where there was an unusual degree of pain and muscular spasm, attributable to irritation of the anterior crural nerve; but he continues to think that, in the great mass of these cases, they are certainly of no service, if not absolutely prejudicial. In the treatment of the constitution, he relies but

little upon iodine, much as it has been lauded by some surgeons as a specific for scrofulous disease. His experience is, that it is useful in a few cases, and in very small doses; but he believes that the large doses in which it is sometimes exhibited have a tendency to diminish, rather than to increase the vital powers. He strongly recommends the use of liquor potassæ in full doses, combined with light bitters, and continued for a very long period. Great care should be taken to regulate the action of the bowels, and none but the plainest and most nutritious food should be permitted.

The author enters at considerable length into the question of the amputation of scrofulous joints, and his opinions are somewhat modified by his late experience. In his last edition he dwelt much upon the liability of the patient to visceral diseases, and his conclusions were summed up in these words:

“I do not say that these considerations are sufficient to warrant the surgeon in forbidding an operation altogether, in all cases where it is not actually and indisputably necessary to save the patient's life; but they are certainly sufficient to make him cautious not to recommend and urge it too strongly. They show the prudence of delay in certain cases. Perhaps, after the lapse of one, or two, or more years, by means of proper medicines and a judicious attention to diet and mode of life, and still more in consequence of that change which the mere lapse of time may produce in the constitution of a young person, the patient's general health may be so far improved, that the diseased joint may be removed without that risk of subsequent mischief which would have been incurred at a former period.” (Pp. 268-9, *second edition*.)

He has now adopted a rather more favourable opinion of these cases: he believes that the removal of the limb may, in some instances, prevent or suspend the visceral disease. But, in order to enable our readers to judge how far Mr. Brodie has modified his opinions, and upon what good grounds he has done so, we shall gratify them by quoting the passage.

“But we may refer to another order of facts, as shewing that there are occasions in which the amputation of a scrofulous joint, instead of rendering other organs more liable to the same disease, may actually produce the opposite effect of preserving them from it. It is to be observed that such a disease of a joint is never more than the remote cause of death, and that, where the result is fatal, it invariably happens in the following manner. The patient is exhausted by hectic fever, and in this state of debility disease takes place in the mesentery or lungs, or not unfrequently in both these parts at the same time, and it is this visceral affection which immediately precedes dissolution. It is evident, then, that in many cases there is a period of time at which the amputation of the limb may be the means of preventing the establishment of a secondary

disease. Nor is this all. Visceral disease, which was previously in a state of inactivity, may assume a new form, and begin to make a rapid progress, under the influence of the disease of the joint; and amputation, under these circumstances, may be the means of preserving the patient, if not altogether, at least for a considerable time, perhaps for several years. A young woman was admitted into the hospital labouring under a scrofulous affection of the ankle. It was of long standing, and there were several abscesses communicating with extensive surfaces of carious bone. It was evident that there was no chance of cure for the disease in the joint. Nevertheless, I did not think it right to propose to the patient that she should submit to the loss of the limb, as she had a troublesome cough, with a purulent expectoration, and other marks of pulmonary disease. She however earnestly implored that the ankle might be removed, and at her request, and certainly against my own judgment, I performed the operation. The stump healed readily. The pulmonary symptoms almost immediately subsided. She lived for four or five years in tolerable health, but at the end of that period (as I have been informed,*) there were again manifest indications of disease within the chest, of which she ultimately died.

“It is evident, from these statements, that the question concerning amputation, is, in many instances, one of a complicated nature, requiring the exercise of no small degree of judgment and discrimination on the part of the surgeon, and not to be determined, except after a minute investigation of the whole case, with respect to the disease in the joint itself, and also in whatever relates to the state of the general health at the time, and that of the constitution previously.” (P. 210.)

The subject of *Anchylosis* has also occupied Mr. Brodie's attention. His opinions are briefly these: that ulceration of the cartilages may exist without anchylosis being the consequence, but that in bad cases adhesions are formed in proportion to the severity of the attack. He gives the following excellent directions as to the conduct of the surgeon during its formation.

“It is never prudent to have recourse to any mechanical means for the purpose of preventing anchylosis taking place, lest a fresh attack of inflammation and abscess should be the consequence. We may however venture, when the circumstances of the case require it, to adopt measures for the purpose of gradually placing the limb in a more commodious position. For example: when the knee has been affected, if left to itself, it often happens that the leg becomes fixed at a right, or even an acute angle with the thigh; and a light apparatus may be applied to the limb, with a screw at

* Mr. Brodie has been misinformed as to the termination of this case. We have had an opportunity of seeing the patient of late, and she is perfectly healthy, and without any marks of visceral disease.

the posterior part, by the agency of which the leg may be very slowly and cautiously extended. In like manner, if the elbow be in danger of being ankylosed in the straight position, it may be very gradually brought into a state of flexion. It is scarcely necessary to explain wherefore, in the knee-joint, the straight position is to be preferred to the bent; while in the elbow it is desirable to obtain the latter position instead of the former." (P. 213.)

Two additional cases are introduced; one to illustrate the pathology of the disease, and the other to indicate the treatment which the author has of late found most efficacious.

If we were called upon to point out the portion of the work which has undergone the greatest improvement, we should certainly select that upon *Caries of the Spine*. The chapter on its pathology has been entirely remodelled. The various origins of the disease are more clearly arranged, and the whole exhibits that peculiar process of simplification with which it appears Mr. Brodie's object (as it should be that of every scientific man,) to invest every subject that he handles. There are, however, no new facts which especially require our notice; and, as we have already been rather lengthy, and have still much before us, we must proceed, without making any comments upon this part of the subject.

The symptoms of caries of the spine are of two orders; one connected with the disease of the bone, the other the effects of the disturbance of the nerves or spinal marrow. Mr. Brodie thus briefly enumerates them:

"1st. Pain and tenderness in the situation of the carious vertebræ.

"2dly. Curvature of the spine forward, with an angular projection of the spinous processes posteriorly, the result of the bodies of the vertebræ having been destroyed, while the other parts of these bones remain entire.

"3dly. Abscess commencing imperceptibly, but at last presenting itself as an external tumor.

"4thly. Pains, loss of sensation, coldness, muscular spasms, and paralysis of the extremities.

"5thly. Derangement of the functions of the various viscera, which are capable of being influenced by that portion of the spinal chord which is implicated in the disease." (P. 249.)

Of these it is of the most importance to study well the nature of the pain, as it is the only symptom which indicates the onset of the disease. The following is Mr. Brodie's description of it.

"In the majority of cases, the first symptom which the patient notices, is pain referred to that part of the spine in which the caries exists; at first trifling, but becoming more severe afterwards. The

pain is aggravated by any sudden motion of the spine; by percussion, or by a jar communicated to it in any other way; as by stamping on the ground, striking the foot accidentally against a stone, sneezing, or coughing. In the advanced stage of the disease the pain is sometimes so severe, and so easily induced, that the patient cannot bear the slightest movement. Yet, in other cases, there is sometimes no pain in the spine whatever, from the first access of the disease to its termination." (P. 249.)

Then follow two cases in which the patients died from the disease, without once complaining of the slightest pain in the affected part.

Concerning the *Curvature*, the author only adds one remark, viz. that it can never exist until the disease has made some progress, during a period which varies from three months to two years.

The same observation applies to the formation of *Abscess*, with this addition, that, after it is formed, it may lie dormant for a long period, without affording any indication of its existence. It is however "usually attended with some derangement of the general health, such as loss of flesh and muscular power; increased frequency of the pulse; a slight access of fever in the evening, followed by perspiration at night; occasionally, but rarely rigors." But every surgeon knows that the symptoms vary according to the portion of the spine that is affected; and it is in his detail of these symptoms that the author has made such valuable additions to this part of his work. We can however afford room only for a small portion of them, and we shall therefore select, as a specimen of the whole, his description of caries of the cervical vertebræ.

"When there is caries of the cervical vertebræ, the patient complains, in the first instance, of pain in the neck, which is aggravated by every motion of the head, and which is not unfrequently mistaken for the muscular pains and stiffness connected with what is commonly called a stiff neck from cold. The pain gradually increases, and, according to my experience, is more liable to be severe than when the seat of the disease is in the lower part of the spine. When, in the progress of the disease, the spine has become incurvated forward, the angular projection posteriorly is observed to be trifling, except when the lowest or seventh cervical vertebra is implicated in the disease; a difference which is easily explained by the greater length of the spinous process of the latter, as compared with that of the spinous processes of the vertebræ above.

"Abscess connected with diseased cervical vertebræ usually presents itself among the muscles on the side of the neck. Occasionally it makes its way forward, forming a tumor, and afterwards breaking in the pharynx. I have seen one case in which the abs-

cess penetrated into the theca vertebralis, and the whole of the spinal chord, from its origin to its termination, was bathed in pus. At an early period of the disease, the patient frequently complains of pains in the arms and shoulders. After some time these pains subside, but they are followed by complete paralysis of the upper extremities; while the muscles which derive their nervous influence from the spinal chord below the neck remain subject to the will. In a still more advanced stage of the disease, the paralysis extends to the muscles of the trunk and of the lower extremities. Then there are pains in the abdomen, which becomes distended and tympanic, the bowels being at the same time obstinately costive. In all cases, there is pain in the occiput and temples; which is, however, most severe when the disease is situated in the two or three superior vertebræ. Not unfrequently the transverse ligament of the second vertebra is destroyed, and the consequence is, a dislocation of the odontoid process. Sometimes the dislocation is complete, and the patient, from the pressure made on the spinal chord, expires as suddenly as if the latter had been divided transversely. More frequently it happens that the displacement of the odontoid process is somewhat restrained by the pressure of the dura mater which lies over it. There is then some degree of pressure on the spinal chord, sufficient to excite irritation, but not sufficient to destroy its functions. Under these circumstances, the patient complains of increased pain in the head, followed by convulsions, stupor, dilated pupils, and other symptoms of effusion of fluid on the brain; and on examining the body, after death, we find that such effusion has actually taken place, there being a collection of fluid in the ventricles, or in the base of the cranium, or in both of these situations." (P. 254.)

We greatly regret that we are obliged to omit the author's description of *Disease of the Dorsal and Lumbar Vertebra*, with an excellent account of what is commonly called *Psoas Abscess*. It is seldom that such exquisite morsels fall in the way of a reviewer, and it is therefore with great difficulty that we turn our back upon them, to proceed to the directions concerning the treatment of these cases. This may be briefly stated to consist in the employment of rest, (and the author prefers the use of Earle's bedstead,) and of issues in the neighbourhood of the diseased part. Mr. Brodie has long known that the latter were useful in some cases, and nearly useless in others, and his knowledge of their effects on diseases of the joints had led him to suspect that they were useful only in those cases where the disease did not commence in the cancellous structure. His subsequent experience has confirmed this opinion, and his present language is as follows:

"Nor, if my observations on the subject be well founded, is

this to be regarded as a merely theoretical opinion. I have repeatedly known the greatest relief to follow the establishment of issues, where the patient has suffered severe pain in the situation of the carious vertebræ, presenting at the same time no distinct indications of a scrofulous diathesis; while in young persons, with fair complexions and dilated pupils, in whom the disease has proceeded with little or no pain, they have appeared to be either inefficacious, or actually injurious. It appears to me also that in caries of the spine, as well as in that of other joints, issues are to be employed only in the early stage of the disease, with a view to prevent suppuration, and that they are of no service after abscess has actually formed." (P. 268.)

We pass over the chapter upon *Tumors and Loose Cartilages in the Cavities of the Articulations*, as it remains unaltered, and we now approach the new chapter on *Malignant Diseases of the Joints*. These are of two kinds, carcinoma, and fungus hæmatodes. First, as respects carcinoma. Mr. Brodie has never known this to exist as a primary disease in the bones, but it has always been preceded by a similar affection of the breast, or some other glandular organ. Its existence has been indicated by pseudo-rheumatic pains, of different degrees of severity, and by extreme brittleness of the bones. Two cases are detailed; one of disease in the hip, which may be found in the second edition, Case LX., and the other of disease in the vertebræ. We quote the latter for the instruction of our readers.

"CASE LXXI. A lady, about thirty-eight years of age, consulted me, in the spring of 1832, on account of a scirrhus disease of one breast. There was not a distinct scirrhus tumor imbedded in the substance of the breast, but a conversion of the gland itself into the scirrhus structure. The skin covering the breast was thickened, and manifestly contaminated by the disease.

"From this time I saw her occasionally, the disease in the breast making little or no apparent progress.

"During the night of the 10th of February, 1833, she suddenly became paralytic in the whole of the lower part of her person. She not only lost the power of using her lower limbs, but that of voiding her urine also; and it became necessary to empty the bladder by means of a catheter.

"The loss of muscular power was attended with a loss of sensibility as high as the navel and lowest dorsal vertebræ. When the catheter was introduced into the bladder, she was not sensible of its introduction.

"In the beginning of March the lower limbs became affected with involuntary convulsive movements, which were unattended by pain, but of which the patient complained that it was disagreeable for her to see them.

“When the paralysis first took place the urine was clear, and otherwise in a natural state; afterwards it became ammoniacal and offensive to the smell, depositing a thick mucus, with traces of phosphate of lime in it.

“On the 9th of April, 1833, the patient died.

“The body was examined by Mr. Cutler, who found the whole of the gland of the breast to have assumed a scirrhus structure.

“Several of the dorsal vertebræ were converted into a substance possessing considerable vascularity, of a gristly consistence, some of them containing no earthy matter whatever, so that they could be cut with a knife. Altogether the alteration in the condition of the vertebræ seemed to be very similar to that which had taken place in the head of the femur, in the case which was last described, except that, being more complete, it might be supposed to indicate a more advanced stage of the disease.

“The whole of the lower portion of the theca vertebralis was filled with a serous fluid.

“There was a deposit of earthy matter in the upper part of each lung; and about four ounces of serous fluid were contained in the cavity of the right pleura.

“The kidneys were of a dark colour, and highly vascular.

“The mucous membrane of the bladder bore marks of considerable inflammation. The ureters, pelves, and infundibula of the kidneys, were also inflamed, and in some parts lined with coagulated lymph. They were considerably dilated, and contained a putrid mixture of urine and mucus.” (P. 283.)

Fungus hæmatodes more frequently attacks the bones than carcinoma, and, unlike it, occurs there as a primary disease. It is characterized by a slight degree of pain in the affected part, which is aggravated by exercise. The bone gradually enlarges, presenting a tumor, elastic in some parts, and hard in others, till, after some time, the motions of the joint are totally impeded. It is almost unnecessary to say that amputation, which is the only remedy, frequently fails in removing the disease from the system. We have abridged the following case, to illustrate the progress of this disease in the knee.

“Mr. O., twenty-five years of age, in January, 1828, first experienced a sensation of weakness in the right knee, with a slight pain, after walking even a short distance. These symptoms continued; and, in the course of two or three months, he observed a small tumor over the external condyle. * * *

“On the 25th January, 1829, he came to London. * * At this time there was a very considerable enlargement of the whole of the upper part of the knee-joint, so that it was four inches in circumference larger than the corresponding part of the opposite limb. The tumor was soft and elastic, occupying the situations of both condyles of the femur, but being more especially prominent in

that of the outer condyle. The head of the tibia and the patella did not seem to be implicated in the disease, and the joint retained nearly its natural degree of mobility. * * *

The limb was amputated on the 6th of July, 1829.

“On examining the amputated limb, the femur was found to terminate abruptly about five inches above the knee-joint. In place of the condyles and lower part of the shaft of that bone, there was a large tumor, of an irregular form, of that structure to which the name of fungus hæmatodes is commonly applied. The cartilage which had covered the surface of the condyles of the femur was seen expanded over the lower part of the tumor, being everywhere thinner than natural, but nowhere in a state of ulceration. In some parts it had contracted adhesions to the cartilage covering the head of the tibia.

“In other parts the tumor was covered by some thin remains of the periosteum, and a layer of thickened cellular membrane.” (P. 286.)

The chapter *on some other Diseases of the Joints* has, as we have before said, undergone great alteration. In the former edition, the first two of these which were mentioned were abscess and exfoliation of the articulating extremities of the bones: in the present they are placed on a much more scientific footing, being treated of as acute and chronic inflammation of the epiphyses, the acute terminating in exfoliation of the bone, and the complete destruction of the joint; the chronic producing enlargement of the epiphysis, and, in more severe cases, occasioning the formation of abscess in the centre of the bone. In the former there is no remedy but amputation; in the latter, where there is only enlargement, sarsaparilla, mercury, iodine, and mezereon, with the application of blisters, will be found useful. When abscess in the bone takes place the pain is intensely severe, and formerly such cases were condemned to amputation; but Mr. Brodie has revived an operation of Mr. Hey's, and employed it with success in several instances. He trephines the bone, opens the abscess, and gives exit to the matter. The difference between Mr. Hey's and Mr. Brodie's operation is this, that Mr. Hey only applied it to such abscesses as had already burst, and found an external opening. Mr. Brodie has recognized the symptoms of this disease at its commencement, and, by practising the operation at an early period, has saved his patients many months (perhaps years) of intense suffering. The particulars of the operation, and several cases in which it was performed, may be found in a paper, by our author, in the seventeenth volume of the *Medico-Chirurgical Transactions*.

Mr. Brodie has enlarged upon the treatment of hysterical affections of the joints, and he recommends the usual routine of remedies which our empirical practice in this species of disease has for a long time, though very unsatisfactorily, led us to adopt. The following directions are not sufficiently attended to in general, and we therefore avail ourselves of the opportunity of quoting Mr. Brodie's high authority on these points. After recommending various medicines, he says,

“But none of these remedies will do for the patient what may be accomplished by other means. Her attention should be as much as possible withdrawn from the subject of her complaints, and directed to other objects. She should be encouraged to take exercise out of doors, especially on horseback; to rise early, so that only a moderate number of hours may be passed in bed; to live in a cheerful society, and if she has abandoned them (which has too frequently happened,) to resume, in all respects, the habits of a healthy person.” (P. 304.)

Mr. Brodie notices another circumstance in connexion with the diagnosis of the disease of the hip-joint which is not generally known, viz. that, independently of disease, the two lower extremities are not always of the same length. The following passage, containing his experience on this subject, must conclude our quotations, and our notice of his work.

“It occasionally happens that the two lower extremities are not of precisely the same length; and this may be the result of original formation, the femur and tibia of one side being respectively longer than those of the other side. If the whole of this difference amounts, as it sometimes does, to an inch, or an inch and a half, the individual is observed to limp in walking, and the great trochanter belonging to the longer limb is higher and more prominent than that of the other; and this might lead a superficial observer to mistake the case for one of diseased hip.

“In some instances there is a difference in the length of the two lower limbs, in consequence of disease. A diseased bone for the most part does not keep pace in its growth with the other parts of the body; but I have known the reverse of this to happen, of which the following is a remarkable instance :

“CASE LXXIX. Master M. was brought to me for my opinion, in June, 1832. I saw him in consultation with Dr. Lefevre, physician to the British Embassy at St. Petersburg.

“The cicatrices of three or four abscesses were seen in the skin on the anterior and upper part of the thigh, and there was considerable thickening of the deep seated soft parts in the same situation, there being also a manifest adhesion of them to the bone. The appearance of the limb was such as would lead to the belief

that there was a portion of diseased or dead bone of the femur, with probably some new bone formed round it; and that this had produced a succession of abscesses of the soft parts, as in ordinary cases of necrosis. The history of the case seemed to justify this opinion as to the nature of the disease.

“Three years and a half ago the little boy had been suddenly seized with severe pain, which was referred to the knee, but only for a few hours, at the end of which time it shifted its place to the upper and anterior part of the thigh. The pain continued, and swelling immediately took place. At the end of six months an abscess was opened, which however soon healed. Afterwards a second abscess formed, which was followed by others; but all of them had healed without any exfoliation having hitherto taken place.

“There was some degree of stiffness of the hip-joint, but no more than might be reasonably attributed to the thickening and swelling of the soft parts in the neighbourhood. But the most remarkable circumstance in the case was, that the diseased thigh-bone, when measured from the anterior spinous process of the ilium to the patella, was found to be at least an inch and a quarter longer than that of the sound limb. The measurement was made repeatedly and with the greatest care, so that there could be no mistake respecting it. There was no perceptible difference in the length of the bones of the two legs.

“In consequence of one limb being thus longer than the other, when the patient stood erect, with the soles of his feet planted on the ground, the great trochanter on the side of the disease appeared to project unnaturally, and this occasioned a manifest alteration in the form of the nates, somewhat corresponding to what is observed in the less advanced stage of disease of the hip-joint. That this appearance of the nates was to be attributed solely to the difference in the length of the two limbs was proved by this circumstance, that it was at once removed by placing a book an inch and a quarter in thickness under the foot of the sound limb, so as to raise that side of the pelvis to the same level with the other.” (P. 212.)

Our readers may now form some opinion of the excellence of the late additions to Mr. Brodie's book: they may perceive that they are characterized by the same accuracy of observation, and fidelity of description, which distinguish all his writings. But, in endeavouring to estimate the merits of the whole volume in its present complete form, it should be borne in mind, that there are two orders of works in medical science of equal value. The one establishes general principles as a foundation for future investigation; the other raises the superstructure by the accumulation of details; the former would be useless without the latter, and the latter unsafe without the former:

“alterius sic
Altera poscit opem res, et conjurat amicè.”

The former may claim the palm for the brilliancy and grandeur of its discoveries; but the latter has an undoubted precedence in practical utility. The names of Harvey, of Hunter, and of Bichat, may command our reverence for their successful interrogation of nature; but those of Sydenham, of Pott, and of Astley Cooper, have an equal title to our respect as benefactors of mankind. To these latter posterity will add the name of Mr. Brodie, recognizing in his works the vivid descriptions of Sydenham, the sound judgment of Pott, and the extensive experience of Cooper.

Chemistry, Meteorology, and the Function of Digestion, considered with reference to Natural Theology. By WILLIAM PROUT, M.D., F.R.S., Fellow of the Royal College of Physicians.—London, 1834. 8vo. pp. 564.

ONE of the most favourite topics of professed grumblers is the slender encouragement given to literature. Observe, cry the croakers, how a manufacturer of carpets or candelabras rolls in wealth, and a plodding attorney is perfect in the art of transmuting parchment into gold, while a Milton is rewarded for a "Paradise Lost" with ten pounds. Now, among other important differences between the material products of the loom or workshop, and the airy creations of genius, there is one which the pessimists seem to have forgotten. The former depend entirely on patronage; the supply, as the economists say, is proportioned to the demand; and if the ever increasing luxury of the age should require an army of attorneys instead of a few regiments, they could be produced with the facility, and almost with the rapidity of mushrooms. The products of genius, on the contrary, it is equally difficult to stifle by indifference, or to encourage by rewards: a Tasso or a Milton wrote for immortality, undismayed by poverty and neglect; while, in our own days, we have known an epic poem to run through twenty title-pages in a twelvemonth, and be lauded in every newspaper from Inverness to Dover, though no artifice could prolong its existence for ten years. Pensions and prizes seem to us eminently calculated to depress literature, and as unsuitable to the true genius as the pendulous abdomen of an alderman would be to a pugilist. Among the disadvantages entailed upon the prize and pension system, (the hothouse for forcing geniuses,) there is one too glaring to be overlooked. The author, instead of writing from his own heart, and imparting to us the rich overflowings of his fancy, is perpetually cribbed and confined by the painful consciousness that he is writing for a coterie of patrons; and the consequence is, that

a prize essay may be recognized by its lugubrious stiffness, as different from the flow of a genuine book as a court-lady of the eighteenth century, in hoop, wig, and powder, was from a Greek nymph, "a daughter of ægis-bearing Jove."

Now we apprehend that it was with the intention of demonstrating this great literary truth that the Earl of Bridgewater left his eccentric legacy. To make the matter as plain as possible, he set his legatees to write against Paley, one of the clearest heads who have ever adorned the English church. The great author of the *Natural Theology* was writing on a favourite subject, and at his leisure; he had the lucid, vigorous and argumentative style of a man of brilliant talents long practised in composition, while his playfulness (unlike the caustic sarcasms of sterner writers,) lends an unexpected charm to the subject, like the lambent flame flickering around the temples of the young Ascanius,—irradiating without consuming. Such a contest can end only in one manner, yet glory may be obtained even by the vanquished; and, if Paley could witness the strife, he might say of each learned legatee, with the sturdy Ajax, in the *Metamorphoses*, *si non vincet, mecum certâsse feretur.*

As this article must necessarily be confined within very scanty limits, we shall pass over the first book, on *Chemistry*, which is certainly inferior to the other two, and content ourselves with a few extracts from the treatises on *Meteorology* and *Digestion*. The following passage is a good specimen of Dr. Prout's clear and simple style:

"Of the Propagation of Heat and Light below the Earth's Surface in Water. Water is a very imperfect conductor of heat in the usual acceptation of the term. Thus, almost any degree of heat may be applied, for a considerable time, to the upper surface of a mass of water, without materially influencing the temperature below; so imperfectly and slowly is heat conducted through this fluid. The process by which heat is communicated through water we have termed convection. When heat is applied to the bottom of a vessel full of this fluid, the portion of the water first heated expands in bulk, and thus becomes specifically lighter; it then rises to the top, carrying with it the newly acquired temperature, while another cold portion, sinking to the bottom, is heated in turn, and so on, till the whole mass becomes uniformly heated.

"With respect to the propagation of light through water, it has been calculated that not a tenth part of the incident light can advance five fathoms downwards in the most translucent water; that even of vertical rays one half is lost in the first seventeen feet, and that they become reduced to one fourth by traversing thirty-four feet, which correspond to the mass of an atmosphere. It thus follows, that only the hundred thousandth part of the vertical rays can penetrate below forty-seven fathoms; which is scarcely equal to the

glimmer of twilight; and that the depths of the ocean must be always in perpetual darkness.*

“Such are the general principles by which heat and light are propagated in water. But, in speaking of this fluid, in a former chapter, we alluded to one of the physical properties of water, of the utmost importance in the economy of nature, and which, perhaps, almost more than anything else, indicates design; since, like the composition of the atmosphere, this property of water constitutes an exception, as it were, to a general law, expressly directed to a particular object. We have mentioned that it is a general law, that all bodies, in every state of aggregation, expand by heat and contract by cold; now water forms a marked exception to this law. Like other bodies, water continues to contract on the removal of heat, till its temperature comes down to within a certain distance (7° or 8°) from its freezing point. At this distance water begins again to expand, and the expansion continues till it becomes ice; at which moment of freezing, a sudden and considerable expansion takes place. Hence, the specific gravity of ice is decidedly less than that of water, and the solid necessarily swims on the surface of the fluid. The importance of this anomalous property of water is so great, that it is doubtful whether the present order of nature could have existed without it, even although everything else in the world had remained the same. For instance, were it not for the comparative lightness of ice, this solid, instead of beginning to be formed at the surface of water, would have begun to be formed at the bottom; as the colder water from its greater specific gravity would naturally have sunk: for similar reasons, also, the lowest stratum of ice would have been the last to have melted. Now, let us reflect for a moment upon the consequences of such an arrangement. In the northern, and indeed even in temperate climates, the bottoms of all lakes and deep waters would have been a mass of ice, and totally inaccessible, therefore, to organized beings. During the summer a few feet of the upper part of the ice would, perhaps, have been melted; but what little had thus become melted in summer would again have become solid during winter, and, as the accumulations of ice would have been constant, all the seas, even perhaps to the tropical climates, at least at their bottom, would, long before this time, have been a mass of ice! But what in reality happens? In consequence of the above anomalous properties of water this mischief is entirely prevented, and not a particle of ice can be formed in a lake, or other collection of water, till the whole mass is cooled down to the temperature of 40° , at which temperature the specific gravity of water is at its maximum.

“These properties of water operate in the following manner. On the application of cold to the surface of water, the cooled portion sinks, and its descent forces up a portion of warmer water to the surface, which, after communicating some of its heat to the superincumbent air, sinks in its turn; and this process goes on for

* “Article ‘Climate,’ in the *Encyclopædia Britannica*.”

a greater or less time, according to the depth of the water. If the depth be not very considerable, the whole body of the water becomes cooled down to 40°; at which temperature the specific gravity not increasing, the circulation ceases, and the *surface* of the water, not the *bottom*, becomes at length so far cooled as to be covered with ice. If the depth of the water be considerable, the application of cold may be long continued without the result of freezing: hence, in this and in other countries not intensely cold, it often happens that deep lakes remain unfrozen during the coldest winters." (P. 246.)

Though we agree with our author in his admiration of this curious provision for preventing the rapid freezing of water, still we cannot allow that, were water destitute of this property, the evil consequences which he supposes must necessarily arise. There are generally half a dozen ways of solving a mathematical problem, and are we to suppose that the Architect of the Universe has but one?

Perhaps, on the whole, the third part of this work, in which Dr. Prout treats of the function of Digestion, is the most interesting. He observes, that oil, sugar, and albumen, are the three great principles of which all organized bodies are essentially constituted; and, though some animals can live for a short time on one alone, yet, for perfect nutrition, a combination of two, if not of all three principles, is absolutely required. Now milk contains all three, and all the most subtle refinements of cookery can produce nothing but disguised imitations of this "great alimentary prototype." The operations of the stomach, according to Dr. Prout, are three.

The first consists in reducing the food to a semifluid state. "This operation seems to be altogether chemical, and is probably effected by *reducing* the properties of these alimentary substances." (P. 488.) Dr. Prout has previously explained the sense in which he uses *reduction*: he means the conversion of a strong into a weak substance; and by a strong compound he means "that its constituent supermolecules are, like those of strong cane-sugar, less complicated than the supermolecules of a *weak* principle, like those of the sugar of honey." (P. 487.)

Secondly. The stomach can change one of the simple alimentary principles into another.

Thirdly. It has the power, within certain limits, of *organizing* and *vitalizing* alimentary substances. "It is impossible to imagine that this organizing agency of the stomach can be chemical; this agency is *vital*, and its nature is completely unknown." (P. 489.)

In his account of the reducing powers of the stomach, our author says,

“Regarding the intimate nature of the agency by which the combination of alimentary substances with water is effected in the stomach, we cannot be said to possess much certain knowledge. This combination appears to be chiefly owing to the agency of a fluid secreted by the stomach, the glands for the formation of which fluid are most numerous toward the pyloric orifice. The aliment having been previously broken down by mastication, and having received an admixture of saliva and of other fluids, is brought into contact with the fluid secreted by the stomach; by which secretion, or by some other energy there in operation, the food that has been introduced into the stomach is associated with water, and thus becomes itself more or less a fluid. Of this important secretion of the stomach, chlorine, in some state or other of combination, is an ingredient—it would seem a necessary ingredient; for the secretion, in its healthy state, always contains more or less of chlorine, the powerful influence of which elementary principle seems mainly to contribute towards effecting the union of the food with water. The chlorine, thus so indispensable to the reducing process, is perhaps more frequently the subject of derangement than anything concerned with the assimilation of the food. It often happens that, instead of chlorine, or a little free muriatic acid, a large quantity of free muriatic acid is elicited; which not only gives rise to much secondary uneasiness, but more or less retards the process of reduction itself. The source of this chlorine or muriatic acid must be the common salt which exists in the blood; to suppose that it is generated, is quite an unnecessary hypothesis. The chlorine is therefore secreted from the blood; and it may be demanded, what is the nature of the agency capable of separating that element from a fluid so heterogeneous as the blood? We are acquainted with one agent that exerts such a power, namely, electricity; and this agent, as we formerly observed, seems to be employed by the animal economy for its operations, in the same manner, and on the same principles, as the materials themselves are employed from which the animal body is constructed. Perhaps, therefore, the decomposition of the salt of the blood may be fairly referred to the immediate agency of this principle, electricity. But here the question arises, what becomes of the soda from which the muriatic acid has been disunited? The soda remains behind, of course, in the blood, and a portion of it, no doubt, is requisite to preserve the weak alkaline condition essential to the fluidity of the blood. But the larger part of this soda is probably directed to the liver, and is elicited with the bile in the duodenum, where it is thus again brought into union with the acid that had been separated from the blood by the stomach. These observations, illustrating the importance of common salt in the animal economy, seem to explain in a satisfactory manner that instinctive craving after this substance which is shewn by all animals.

“Admitting that the decomposition of the salt of the blood is owing to the immediate agency of galvanism, we have, in the

principal digestive organs, a kind of galvanic apparatus, of which the mucous membrane of the stomach, and perhaps that of the intestinal canal generally, may be considered as the acid or positive pole; while the hepatic system may, on the same view, be considered as the alkaline or negative pole. Whether such galvanic action be admitted or not, (and the admission is of no very great importance,) what we have above stated may be received as a simple expression of the facts, in so far as they relate to the saline constituents of the blood. Moreover, be the nature of the energies what they may by which these changes are effected, along with these changes, and probably by the aid of the same energies, other very important changes or processes are carried on, to some of which we shall presently have occasion to allude. In the mean time we may close this section by observing, that there is strong reason to believe that the solvent power, which we have described, or some power having a great resemblance to it, exists not only in the stomach, but in every part of an animal body. In all animals there are minute tubes, called absorbents, which originate in every part of their bodies, and, at length uniting, enter the sanguiferous system along with the chyle. Now, the office of these tubes is to remove all those portions of the animal frame which, after having performed their several functions, require to be withdrawn. Of course, before solid parts can be thus removed, they must be dissolved, (*digested*, in fact;) and such solution, in many instances, is probably effected as it is in digestion, by combining these solid parts with water. This supposed analogy between the solvent powers of the stomach and those which must prevail all over the body seems to be strongly confirmed by that similarity of structure and of function existing between the lacteals and the absorbents: they indeed form but one system." (P. 494.)

We agree with our author in supposing that the food becomes a semifluid from its admixture with the gastric juice and saliva; but surely this is inconsistent with his previous supposition, that it depends on the *reduction* of the alimentary substances.

We trust that we shall be acquitted of everything like disrespect towards one of the master-spirits in our profession, when we confess that this work has disappointed us. Our expectations may have been unreasonable, but our author's genius had given them birth; and we are dissatisfied, not because the treatise is defective in matter or manner, but because it wants the author's private mark—the stamp of originality. Yet perhaps several of the observations on digestion may be exempted even from this mitigated censure; and, though this work has some of the diagnostic signs of a bespoken book, it is still the book of Dr. Prout: as Longinus observes, that though the *Odyssey* bears the marks of old age, it is the old age of Homer.

Cours Théorique et Pratique d'Accouchemens. Par J. CAPURON, Docteur en Médecine de la Faculté de Paris, Professeur de l'Art des Accouchemens et des Maladies des Femmes et des Enfans, &c. *Sixième Edition.*—Bruxelles, 1832. 8vo. pp. 252.

THIS work is divided into three parts: the first treats of the anatomy and physiology of the female organs of generation, in their unimpregnated and impregnated state; the second, of natural labour; and the third of preternatural labour, including those cases which require only the assistance of the hand, as well as those which demand the use of instruments.

A French *Cours d'Accouchemens* is generally less comprehensive than an English System of Midwifery. Among our continental neighbours the obstetric art is considered merely as a branch of operative surgery, and treated of apart from the diseases of the reproductive organs, and those consequent on pregnancy and parturition: we doubt, however, whether such insulation be favourable to the progress of the science, since many of the most important and difficult questions which present themselves to the accoucheur are essentially connected with the consideration of disease. The evidences of pregnancy, for example, in a healthy woman, are usually sufficiently unequivocal; but this state is liable to be complicated with diseases which render its diagnosis extremely obscure, and there are also diseases which simulate pregnancy so closely, that all the science and assiduity of an experienced practitioner is requisite for their discrimination. In treating of this question, M. Capuron gives an excellent view of the ordinary means of ascertaining whether a woman be with child or not; but he makes only very casual allusion to the several morbid states, which may render the problem of difficult solution. Our author's remarks on this subject will, however, be read with considerable advantage.

In reviewing the diagnostic signs of pregnancy, he expresses himself with more diffidence of their validity than is usual with obstetrical writers; not, however, with more than the experience of practitioners, if candidly stated, will amply warrant.

“None but an experienced and intelligent accoucheur is capable of separating truth from falsehood in an inquiry where self-deception is so easy; he alone can distinguish the probable, equivocal, or uncertain signs from those which are true, characteristic, and infallible, and thus pronounce an irrevocable decision. In general, whenever the movements of the fœtus cannot be detected, we must be content to remain in doubt till time clears up the difficulty. But it may happen that the obscurity is not dispelled

till a very late period, not even till that of actual delivery. We could not have believed this, had we not been witness to the following fact:

“A woman was received at the Hôpital de la Charité, declaring herself to be dropsical. Corvisart examined her, and thought that he perceived a small fœtus towards the left flank: this induced him to believe that the patient laboured under an encysted dropsy complicated with extra-uterine pregnancy. Baudelocque, being requested to visit this woman, examined her per vaginam, and assured us that the appearance of pregnancy was caused by an enormous scirrhus of the uterus. What happens? Fifteen days or three weeks after, the woman is naturally delivered of a very large child, full of vigour and health. What a surprise for the clinical professor! what a warning for the celebrated accoucheur! what a lesson for the pupils! Thenceforth we learned never to decide, under similar circumstances, till we had attained complete certainty of the existence of a fœtus in the womb. By such circumspection alone can we guard ourselves against error, and avoid these stupid mistakes, which tend to the disgrace of the art, to the dishonour of the practitioner, to the injury of the woman, and almost always to the destruction of her offspring. But how are the motions of the fœtus to be excited? This is, perhaps, the most embarrassing part of the subject, at least to those who are only commencing the practice of manual examination. The following, however, are the precepts given for the diminution of the difficulty, if indeed any precepts can supply the want of experience in an art which is only to be acquired by practice. The uterus is to be alternately elevated and depressed, by the application of one hand to the surface of the abdomen, while the index-finger of the other is introduced into the vagina. By this procedure a shock is communicated to the fœtus, which is first carried to the fundus of the uterus, and then suffered to fall towards the neck of this viscus, and made to impinge on the finger, which is kept immoveable in its situation: this precaution is necessary to avoid confounding the passive motion of the fœtus with that of the entire uterus. The percussion felt is stronger in proportion as pregnancy is further advanced, since the product of conception is then more fully developed. In the latter months, the fœtus, when raised, returns quickly upon the finger, and affords unequivocal signs of its presence. Sometimes, also, in carrying the hand over the surface of the abdomen, or applying the finger to the segment of the uterus corresponding to the vagina, we are fortunate enough to excite the active or muscular motion of the fœtus, and then no doubt remains of its being alive.” (P. 52.)

M. Capuron is not sanguine in his expectations of the aid to be derived from auscultation in the detection of pregnancy.

“Of late,” says our author, “physicians have maintained that the stethoscope of Laennec may serve for the detection of pregnancy,

when the fact is doubtful. According to them, this instrument, applied to the hypogastrium of the pregnant woman, transmits distinctly to the ear of the inquirer the sound of the circulation both in the placenta and the foetal heart. But if there be cases in which this species of auscultation is infallible, how many are there also in which it is fallacious and useless! In proof of this, we appeal to the testimony of enlightened accoucheurs who have made repeated experiments on this subject. If they are candid, they will acknowledge that the wooden cylinder never deserves the preference over the touch of an experienced finger. For our own part, observation has convinced us that the stethoscopic diagnosis of pregnancy stands on the same ground with that of thoracic diseases; and we can assure the reader, without fear of being confuted, that its utility has been exaggerated in both instances." (P. 50.)

On this subject we may safely say, that when the pulsations of the foetal heart can be distinctly heard, they afford a very unequivocal indication of pregnancy, inasmuch as the sound is of a kind little liable to be mistaken; but we should be extremely sorry to declare that a woman was not with child merely because they could not be heard.

With regard to the placental sound we hardly know what to say; but we will not pronounce it inaudible, because we wot of a man who heard a mouse trotting on the top of a high tower when the said deponent was at the bottom; and moreover, the limits of possibility seem to be daily extending, so that we have quite given up disbelieving, as unphilosophical and Judaical withal.

The directions for the conduct of labour, whether natural or otherwise, are copious, and for the most part excellent. In treating of the former, however, we do not think our author has insisted sufficiently on attention to the state of the bladder. Every experienced accoucheur is aware that this organ sometimes becomes dangerously distended during labour, without the patient being herself conscious of it; attendants also are liable to be deceived by mistaking the discharge of the liquor amnii for that of urine; and, in the advanced stage of labour, a vast quantity of urine is often accumulated in the bladder in a very short space of time, offering an impediment to the descent of the child's head, which is certain to increase the pain, and protract the duration of labour, to say nothing of the danger of irreparable mischief to the bladder itself. We have witnessed a case in which the urine had been freely passed till within a few hours of delivery, and in which the patient did not complain of any uneasiness from its retention: this patient fell a victim to peritoneal inflammation, and on dissection it was found that

the bladder had given way at its upper part, and allowed the urine to escape into the cavity of the abdomen.

It cannot be too strongly impressed on the mind of the practitioner, that he ought never to trust, in a matter so important, to the account given by the patient, or her attendants, but should insist on seeing the quantity of urine passed, and examine, from time to time, the state of the bladder, through the parietes of the abdomen and vagina, when, if there be the smallest reason to suspect that the bladder is distended, the introduction of the catheter should be urged, notwithstanding the frequent repugnance of the patient to this operation. We may add, that the accoucheur should never go to a case of labour unprovided with a flexible gum catheter of a small calibre; since, when the cavity of the pelvis is fully occupied by the fœtal head, the introduction of the metallic instrument will often be found difficult and painful, and sometimes impracticable.

In his directions for the management of hemorrhage, M. Capuron makes no mention of the *secale cornutum* as a means of arresting it, or of the transfusion of blood, with a view to repair the waste of the vital fluid. The former omission is, we think, no great loss; but the subject of transfusion is one of considerable importance, and ought not to have been overlooked in a practical treatise on midwifery.

Our author makes but a brief allusion to the use of the *secale cornutum* in cases of deficient uterine action, and recommends it chiefly on the authority of others.

“Dr. Villeneuve, one of our estimable and modest colleagues, has published an excellent memoir on this substance, in which he has proved historically that it has been administered with success in six hundred out of seven hundred and twenty cases of parturition. But what other therapeutical agent could cite more, or even an equal number of chances in its favour? There is then nothing to prevent its employment, or, at least, a trial of its powers. The memoir just mentioned may be consulted for the preparations, doses, and modes of administration. The conditions necessary for its application will also be found there; they are the same, with reference both to the mother and child, as those which obtain in natural labour. From which it results, that the spurred rye is an excitant which should only be used to restore the languid or suspended pains of labour, when the uterus, from its inactivity, is inadequate to the expulsion of the fœtus.” (P. 101.)

Whether the ergot possesses the power over the uterus which many attribute to it, is a question which we must leave to the decision of those who have had larger experience of the matter than we can pretend to: in prosecuting the inquiry,

however, the maxim of Lord Bacon should not be lost sight of, "Is humano intellectui error est proprius et perpetuus, ut magis moveatur et excitetur affirmativis quam negativis."

Admitting, however, that the remedy possesses all the virtues which its advocates claim for it, we do not think it can ever be of very extensive use in the practice of midwifery. If labour be protracted merely from insufficient activity of the uterus, we should in most cases be disposed to advocate the cause of patience *versus* the ergot; if, on the other hand, an impediment arise from even the smallest disproportion between the dimensions of the head and those of the pelvis, we cannot conceive anything more dangerous than the administration of this medicine, since it is obvious that, by increasing the expulsive efforts without diminishing the obstacle to be overcome, it is quite as likely to rupture the uterus as to expel the child: and why, in such a case, should we have recourse to a doubtful or dangerous auxiliary, when we possess one which is both safe and certain, in that old-fashioned but very useful instrument, the forceps?

Nevertheless, as M. Capuron observes, where there is mere deficiency of uterine contraction, there is no objection to the use of the ergot; and it is worth while to try it on a large scale, in order to ascertain whether it really possess the alleged property.

The following observations on *puerperal convulsions* will be read with interest.

"When a woman in labour is affected with convulsions, our first care should be to discover their cause, and to obviate it, if possible. If they be connected with a state of plethora, if there be pain and sense of weight in the head, somnolency, vertigo, tinnitus aurium, the appearance of excitement, and sparkling of the eyes, blood-letting is indispensable, to prevent engorgement of the brain, and compression of the origin of the nerves. But what vein ought to be opened in such a case? The abstraction of blood from the foot has been recommended, but it has not been as successful as that from the neck, or the arm. If the convulsions arise from irritation of the *primæ viæ*, if there be pain above the eyebrows, with nausea and bitter taste in the mouth, if the tongue be foul and red, and the epigastrium painful, recourse must be had to antiphlogistic remedies, such as local bleeding, and water, either pure, or slightly emulsionated.* If the patient be of a highly nervous temperament, subject to hysteria, or any other spasmodic affection, antispasmodics are to be administered, such as baths, orange-flower water in a large dose, the mineral anodyne liquor of

* *L'eau émulsionnée* means distilled water impregnated with the four cool seeds.

Hoffman, camphor, musk, assafœtida, ether, some preparations of opium, &c. We have twice attended a lady who was afflicted during labour with violent convulsions; she was no sooner immersed in tepid water than she was delivered as if by enchantment. The moral emotions which have been known to occasion convulsions demand bodily repose, tranquillity of mind, and abstraction from the causes of mental excitement. The state of debility arising from excessive hemorrhage requires restoratives, and analeptics, strong broths, and even some spoonfuls of old wine. If the neck of the uterus, from being either too rigid or too irritable, offers undue resistance, and causes the commotion of the nervous system, we must endeavour to relax it, and diminish its sensibility, by exposing it to the vapour of warm water, or placing the patient in a hip-bath, or injecting emollient enemata through the vagina. If, notwithstanding all these means, the orifice of the uterus refuses to yield, and presents a hard, tense, and callous margin, as if in a state of scirrhus, its division becomes necessary under pain of compromising the life of the woman. Dubosc, professor in the surgical college of Toulouse, relates that he was able, by this alternative alone, to save a woman who had become pregnant for the first time and at an advanced age. A few minutes after the section of the cervix uteri, the convulsions ceased, and the labour terminated spontaneously. Such a procedure, far from being blamable, ought, on the contrary, to be imitated under similar circumstances. Finally, when the dilatation of the uterine orifice has been effected spontaneously, or by the division of the cervix, if the labour be still too long protracted, we must lend a helping hand to nature. We must commence by rupturing the membranes, which alone is sometimes sufficient to allay the convulsions; for, by thus diminishing the volume of the uterus, its fibres are relaxed, its sensibility and irritability diminished; and the determination of blood to the head is obviated, by partly removing the impediment to its free circulation through the vessels of the abdomen. But, should the convulsions still continue, notwithstanding the evacuation of the amniotic fluid, we have no resource left but in the complete extraction of the fœtus." (P. 144.)

We are much surprised that M. Capuron does not recommend *venesection* in the rigid state of the os uteri above alluded to. He must surely be aware of the fact, that an os uteri which feels as hard as a board will often, after a copious bleeding, become as pliable as could possibly be wished. In some obstinate cases of this kind it is necessary to abstract a very large quantity of blood: this remedy, however, if used with sufficient vigour, is almost always effectual; and venesection, even to fifty ounces, is far preferable to so truculent a proceeding as slitting the cervix uteri, an operation which we can hardly conceive to be ever necessary, except in those

deplorable, but fortunately rare cases, in which conception has taken place when the os uteri was affected with real scirrhus.

When speaking of compound pregnancy as a cause of manual interference, our author cites several ancient authorities with a gravity that is rather amusing; among others, that of Ambroise Paré, who relates that a woman brought forth twenty children at two deliveries. The credibility of this venerable surgeon on such matters may be estimated from the cases he has recorded of certain ladies, who, having been on rather too easy terms with the devil, or some of his satellites, became gravid by their good offices, and were, in due season, brought to bed of old clouts, hobnails, wood, stones, and a variety of heterogeneous and anormal products.* M. Capuron, however, judiciously concludes, that it is extremely rare for a woman to give birth even to three or four children at a time.

The portion of this work devoted to manual and instrumental labour is, in general, admirable. In considering the various irregular positions of the fœtus, the author has shown his good sense in discarding the frivolous minutæ of classification in which continental writers have frequently indulged, and which only tend to burden the memory and bewilder the faculties of the student.

From this commendation we would except only the directions given for embryotomy. We wonder much that M. Capuron should inculcate the use of the *crotchet* in this operation, without so much as mentioning the forceps, which, in this country at least, are now very generally, and most advantageously substituted for it. The *crotchet* is an implement to which we can apply no other term than *detestable*: it is clumsy, of difficult application, often altogether insufficient for the desired end, and always fraught with infinite danger to the mother; while the embryotomy forceps, especially as improved by Drs. D. Davis and Conquest, are of more easy application, of more certain efficiency, and, if properly applied, perfectly safe to the parturient woman.

The reader may perhaps think that a work by so justly celebrated a practitioner as M. Capuron, on so important a branch of medical science, ought to have been the subject of a more extended notice than we have here given to it; but the fact is, that mere midwifery, disjoined from pathology, involves only subjects, on the greater part of which there can now scarcely be two opinions.

* Works, lib. xxv. c. 16. Johnson's Translation.

As a guide to the accoucheur in the mechanical department of his profession, this work will be found of great utility; but we will not deny that we think it much inferior, as a system of obstetrics, to those of several of our own countrymen, who have considered the mechanical details of the art in closer connexion with those pathological views from which they will be found inseparable in practice.

The Edinburgh Medical and Surgical Journal, Nos. CXVIII. and CXIX. January and April, 1834.

WE return with pleasure to the pages of our able contemporary; for we feel assured that few things can be more instructive or more interesting than original papers, when condensation has added brevity to their other merits.

Dr. WM. TURNBULL has given his second *Medico-Chirurgical Report of the Huddersfield Infirmary*, from which we made an extract in the Collectanea of our last number. After narrating some cases of cholera, which seem to favour the theory of the contagionists, Dr. Turnbull gives the following account of the ravages committed by scarlatina in 1832.

“ On the cessation of cholera, scarlet fever made its appearance. One of the first cases I met with was one of Scarlatina anginosa, in a little boy of my own, which was ushered in by convulsions. It occurred in the end of September. Subsequently the disease became very general, and in its most malignant form. Great numbers of children, and some adults, were cut off, more especially to the south of Huddersfield, in and near Almondbury. Delirium set in almost from the first; the heat was irregularly distributed; the eruption indistinct; the pulse rapid and feeble; and the throat speedily became gangrenous. Generally, also, the neck was greatly swollen. In the majority of the fatal cases death happened on the fifth day, in not a few on the fourth, and in some still earlier. I knew of one instance of a servant girl, eighteen years of age, in a family which had previously lost by the malady one of its members, to whom the girl was much attached, who began to complain on the Sunday evening, had a slight show of the eruption on the Monday, and died early on the Tuesday morning; the duration of her illness having been less than thirty-six hours.

“ When the disease commenced with such intensity, remedial means proved of little avail. In some cases, however, ammonia, quinine, wine, and the warm bath, appeared to be beneficial, and to abate the extreme restlessness which characterized most of the cases; but, on the whole, the results of treatment were far from

satisfactory. November was the most fatal month, and onwards to January many continued to sink." (P. 5.)

The whole report does the author great credit. Were such accounts of hospital practice common, we might prophesy a speedy progress of the art of medicine.

Mr. MARSHALL has a sensible paper on *the Abuse of Spirituous Liquors among the Troops in India*. We deem it needless to quote from it, as the absurdity of making arrack a part of the soldier's rations is too obvious to need any comment.

Mr. POOLE gives an account of an *Epidemic Gastric Fever which prevailed in the Limerick Garrison during the Months of May, June, and July, 1833*.

"Diarrhœa invariably ushered in the complaint, and frequently reappeared during its course; but the bowels were at other times slow, and required to be unloaded. Every medicine in this way, however, required to be of the mildest nature, as even the gentlest laxative produced often violent effects. The fecal discharges were varied; in some they appeared wholly serous or mucous; in others natural, but liquid. Various intermixtures of colouring matter were frequent: in some blood, in others bile, and, in a case of the 83d regiment, what might be termed melæna. In this case large quantities of calomel and Cayenne pepper had been given by a practitioner in the country, who, fortunately for the patient, considered his case bad enough to have him removed to headquarters. Griping was a frequent attendant, but tenesmus was not observed. Vomiting of bilious-looking matter occurred in one case; but the stomach was generally retentive, though nausea was by no means unfrequent. Complete anorexia existed for many days. The patients obstinately refused to eat anything, appearing to loath the sight of food, or the idea of using it." (P. 36.)

The treatment employed consisted chiefly in the use of leeches, counter-irritants, hyoscyamus, and the acetate of morphia. Every patient recovered.

There are some valuable observations in Dr. CHURCHILL'S *Report of Diseases occurring at the Wellesley Dispensary for Lying-in Women, and Diseases of Females, during the Year 1832*. Dr. C. thinks the nitrate of silver injection the best remedy we possess in vaginal leucorrhœa, but he says that in uterine leucorrhœa astringent injections almost invariably aggravate the disease. The following practical remarks are well worthy of attention:

"In several patients who suffered much, the dysmenorrhœa proved no bar to conception, contrary to the general statements of authors.

“The first object in the treatment of amenorrhœa was, of course, to produce or recall the discharge: in some we were successful, in others we failed. In addition to the cases related by Dr. Bardsley, of Manchester, of the beneficial effects of strychnine, I have to record one to whom I gave it in doses of one twelfth of a grain, increasing to one eighth three times a day. In the course of a week the discharge appeared, having been absent ten months previously. It has since recurred naturally. In most cases there were symptoms present which precluded the use of this remedy. We tried aloes alone, and in combination with assa-fœtida, very extensively, and with great benefit. The menses often returned under its exhibition; and, when they did not, the general health was improved.

“The various preparations of iron were administered, and often with good effect.

“Some cases, however, resisted every remedy that was tried.

“The dysmenorrhœa was much relieved by the use of opium in grain-doses an hour or two before the expected attack, and during the paroxysm. The addition of two or three grains of camphor is often useful.

“I found opium in large doses an excellent medicine in hemorrhagia. It often stops, or at least diminishes the discharge, and is not attended with any inconvenience. Preparations of iron were of use, and frequently a blister to the loins.” (P. 45.)

The next paper, which is by Dr. JAMES HENRY, is a curious instance of the varied lights which a man of talent can throw on the smallest subject; and, though we are far from admitting all the author's theories, we cannot but admire the ingenuity which dictated them. Dr. Henry administers sulphate of magnesia, with a large addition of sulphuric acid. His directions are as follows:

“Saturate any quantity of cold water with sulphate of magnesia; filter through paper, and add to every seven ounces of the solution one ounce of the dilute sulphuric acid of the Dublin or Edinburgh Pharmacopœias.

“Dose: one table-spoonful in a wine-glass of water.*

“In those cases in which the bowels are very easily moved, a single table-spoonful is sufficient to produce a considerable purgative effect.

“In ordinary cases, a table-spoonful, taken an hour or two before breakfast, produces one or two evacuations immediately after breakfast.

“In other cases the dose is to be repeated once or twice, at intervals of two or three hours, according to circumstances.

“Where the symptoms are urgent, a table-spoonful may be

* “Each table-spoonful contains about two drachms of sulphate of magnesia, and half a drachm of dilute sulphuric acid.”

given every hour until the effect is produced; and, where the urgency is extreme, a saturated solution of the salt, containing only one half of the above-mentioned quantity of acid, may be given in doses of two table-spoonfuls, repeated every hour." (P. 48.)

Our readers will recollect, that the dilute sulphuric acid of the Dublin and Edinburgh Pharmacopœias is stronger than the London formula of the same name, in the proportion of four to three. Each dose, therefore, of Dr. Henry's favourite aperient contains *m. xl.* of the Acid. Sulph. dil. of the London Pharmacopœia; and this enormous quantity must, in most cases, be doubled or tripled before the bowels can be effectually moved. Surely a man may wish to give or take a decent dose of some efficient purgative, without desiring at the same time to acidify or be acidified at this rate. Then there is another obvious inconvenience in introducing sulphate of magnesia to such bad company: "The frequently-repeated contact of the acid saline solution being injurious to the teeth, it is useful to adopt the precaution of taking the medicine through a quill, or from the spout of a small teapot, whenever it is necessary to continue its use for any length of time." (P. 50, *note.*) Dr. Henry, however, nothing daunted, sees sixteen advantages in this method of giving Epsom salts, but we must be satisfied with citing seven.

"1. It is an effectual purgative, never failing to move the bowels in all cases in which the bowels can be moved by medicine. I am not acquainted with any purgative which is more certainly effectual.

"2. It is quick in its operation; the effect being produced in ordinary cases within two or three hours after the first or second dose, and a necessity rarely arising for the continuance of the medicine beyond the third dose.

"3. It is safe, never purging so as to produce exhaustion.

"4. It does not give rise to the slightest degree of nausea, but, on the contrary,

"5. Quickly puts a stop to nausea, and appeases irritability of the stomach.

"6. Flatulence, that most distressing attendant upon constipated bowels, is immediately and signally relieved by this medicine, which not only promotes the expulsion of the flatus already generated, but diminishes the tendency to its further secretion.

"7. In a few minutes after this medicine has been swallowed, so agreeable a sensation of warmth is felt in the stomach, that the medicine is not only readily taken, but even relished, by many persons whose stomach will not retain any other liquid purgative, unless impregnated with the hottest aromatic tinctures." (P. 49.)

After panegyricizing his acid physic, the author attacks the ordinary ways of taking Epsom salts, namely, in plain water, or in infusion of roses, or in infusion of senna; but we cannot afford to quote any more from a short article, and must hasten on to other matter.

Dr. J. SMITH has contributed thirty-six cases of *Insanity*, terminating fatally, with the post-mortem appearances. They show, as the author observes, "that insanity is always connected with some morbid action going on in the brain, its membranes, or the skull, producing eventually, in almost every case, some distinct lesion in one or other of those parts." (P. 384.) These lesions, however, in their turn, become direct causes of insanity; or, in other words, functional leads to organic disease; and, *vice versâ*, where the latter exists, the function of the part cannot be healthily performed. We would suggest to Dr. Smith to throw the principal results of these thirty-six examinations into a tabular form, as it is difficult to read, and impossible to remember, so many cases.

Dr. CRAIGIE's *Clinical Report* is instructive, but, as it would be in vain to attempt an analysis of more than a hundred closely printed pages, we shall content ourselves with a single quotation.

"*Hydatids.*—The existence of the genuine hydatid is not so frequent as is represented by many pathologists, who have too often, in the case of the ovary especially, confounded with this body common cysts containing limpid serum. Of the genuine hydatid, of the family Cestoidei, one example only occurred this season; but it was highly characteristic and unequivocal. It occurred in the person of Isabella Allan, the patient whom I have already mentioned as exhibiting a perfect specimen of concentric hypertrophy of the left ventricle of the heart, and whom I shall have occasion to mention as an instance of disease of the glandular tissue of the kidney. At the inferior surface of the liver, imbedded in the substance of the left lobe, was a large, rather irregular, elastic tumor, inclosed in an exterior cyst. When this was divided, it was found to contain a quantity of limpid serous fluid; and adherent to its internal surface was a cluster of about seventy or eighty membranous cysts, of a flattened spheroidal shape, with semitransparent coats, and containing limpid serous fluid. These presented the other characters of the echinococcus of Zeder and Rudolphi.

"The convex surface of the liver adhered to the diaphragm firmly and extensively by a considerable quantity of albuminous exudation, effused in columns and shreds, of some standing.

"The peritoneal cavity contained about four pounds of serous fluid. The intestines were much distended by air; and the peri-

toneal covering adhered in various parts to each other by means of lymph, partly recent, partly of old formation; and these adhesions were most frequent among the pelvic viscera, and on the ascending arch of the colon, the peritoneal covering of which also adhered to the abdominal peritoneum, and to several of the convolutions of the small intestines by lymph of recent formation. On dividing the upper part of the rectum, a considerable quantity of purulent fluid escaped, and was found to proceed from a cyst formed by adhesions between the anterior part of the rectum and the superior and posterior part of the uterus and ligamenta lata.

“The course of the gastro-colic omentum was occupied by a pretty firm albuminous exudation, which gave it considerable thickness.” (P. 119.)

Dr. SPITTAL has taken the trouble to go through some of the more noted works on the *Diseases of the Heart*, and has given a table of the cases in which a diagnosis was attempted: this he has done with a view of ascertaining whether auscultation is capable of deciding which side of the heart is diseased. It is hardly necessary to tell our readers that cardiac auscultation is in its infancy, not to say, in an embryo state. It is not yet decided what functions the normal sounds of the heart indicate. How then shall we extricate ourselves from the labyrinth of morbid raspings and gratings? Or which of our readers will be surprised at Dr. Spittal's conclusions?

“It is quite evident, from a perusal of the table, that there is a very great want of agreement in the cases therein mentioned, between the signs afforded by auscultation and the actual condition of the heart; and a careful comparison between the first, second, and fourth columns, will show that a correspondence between the signs afforded and the morbid conditions of the heart, according to the rules laid down by Laennec, occurs only in about one fifth part of the whole; while in a large number the indications are either entirely or in part erroneous, incomplete, or altogether absent: and, to show how little such indications are to be trusted, even in the hands of the eminent individuals whose works we have consulted, it may be mentioned, that of the eighteen cases, each of which is furnished with a diagnosis, only one fourth are, as a whole, correct. With these exceptions, almost all the rest are incomplete, and many are very erroneous.

“We have thus endeavoured to show the actual state of the evidence on the question at issue; and enough, we trust, has been advanced to induce us to pause a little before coming to join in any conclusion analogous to that so decidedly advanced by Laennec, and apparently so cordially supported by those who have followed in his steps. We do not say that such an opinion is in every case erroneous, but that exceptions to it are very numerous; and, from this fact alone, it will in all probability become of little import-

286 DR. MALCOLM on *Spontaneous Evolution of Fœtus.*

ance; misleading the observer who puts his trust in it, should it even be proved true in some cases. It is quite impossible, however, to come to a satisfactory conclusion at present, and we fear it will remain so until a far more extensive mass of evidence on this subject shall have been accumulated." (P. 148.)

Dr. MACNISH gives a *Case of Tumour in the Region of the Liver, with Discharge of Biliary Calculi through the Parietes of the Abdomen, which terminated favourably.* The recovery of the patient was perfect, with the following exception: "For a little space around the cicatrix, which is nearly two inches below the margin of the ribs, the liver is hard, and adherent to the abdominal parietes, and feels uncomfortable on pressure; but no vestige of the pendulous tumour can be discovered." (P. 152.)

Dr. MALCOLM relates a case *illustrative of the Spontaneous Evolution of the Fœtus.* When he first saw the patient, an arm, with the shoulder, and a portion of the thorax, had already been expelled through the os externum. Dr. M. administered 150 drops of Tr. Opii, which however increased, instead of weakening, the uterine contractions. He then introduced, with difficulty, two fingers into the vagina, and "had the good fortune to find both feet, near the foramen externum, jammed together between the lower part of the sacrum and the external opening, in contact with the vagina. From the position of the feet, I judged that the breech was resting at the top of the sacrum, or to one side of it, and the head consequently at the anterior part of the pelvis. I gradually brought the feet forward, and was at length enabled to accomplish the delivery. The feet, breech, body, remaining arm, and lastly the head, being adapted to the pelvis, as in an ordinary footling case, without the hand of the operator being introduced, or the presenting arm returned, into the vagina; in short, without turning having been had recourse to. The perinæum, although much stretched during the delivery, remained entire." (P. 339.)

So that it was a *tertium quid*, between a case of turning and of spontaneous evolution.

Dr. JOHN DAVY has an essay on the *Maceration in Water of different Textures of the Human Body.* In an abstract of this kind it is of course impossible to give the author's experiments; it will be enough to quote his deductions from them.

"The general conclusion which I am disposed to draw from these experiments is in opposition to the doctrine of Bichat on the subject of membranes; a doctrine, it must be confessed, which bears the impress of genius; but, I apprehend, rather a fiction of the

mind than a well-grounded theory or generalization of facts. In the present state of our knowledge, it appears to me that the doctrines of Haller, on the composition of the textures of the body, are preferable, both in relation to matter of fact and utility of application, to the more modern ones of the French school. It seems to be taken for granted in the new doctrine, that continuity of surface is necessarily accompanied with identity of structure. If the doctrine be correct, this dogma may be admitted; but if the latter is not correct, I do not know how the doctrine itself can maintain its ground. And it appears to me that facts have been advanced in this paper not reconcileable with this dogma. Compare the effects of maceration on the textures of the different passages or canals communicating with the open air; or compare the effects of this process on different parts of the surface of the same canal, and certainly identity of composition is not indicated, but considerable variety. Make the same kind of comparison with different parts of the cutis, and the conclusion is analogous. Far different in composition and in appearance, and in the morbid affections to which they are liable, are the cutis of the sole of the foot, the cutis of the scrotum, of the chin, and of the back." (P. 364.)

Dr. A. MURRAY proposes to ascertain the presence of minute portions of arsenic, by applying liquid tests to the solid poison, in the following manner:

"1. A small quantity of common arsenic was pressed into writing paper by friction with a glass rod, and upon the stain thus produced a single drop of a solution of common nitrate of silver was rubbed by means of the rod. A phial containing common hartshorn was then immersed in hot water, and over its open mouth the paper was held, (the arsenic being on the upper surface, for the sake of better observing the appearances,) when the whitish spot became in a few seconds lemon yellow. The arsenical spot being kept over the hartshorn for about half a minute more, the yellow colour entirely disappeared, but it returned when the paper was removed from the phial, and held close to the water.

"2. Upon an arsenical stain of the kind described was rubbed a drop of solution of sulphate of copper, and the paper was then held over hartshorn placed as before. Almost immediately a mixture of blue and green streaks was perceived, and in a few seconds more the spot became of a beautiful blue colour. The paper was then removed from the hartshorn, and allowed to float upon the hot water, when the blue in a few seconds was converted into a decided green." (P. 365.)

Mr. JOHN ROBERTON, surgeon to the Manchester Lying-in Hospital, has contributed some useful *Remarks on the Relaxation and Descent of the Uterus and Bladder in the Puerperal State*. After narrating a number of cases, he says,

“1. Descent of one or more of the pelvic viscera is not, as is commonly believed, a disease chiefly of middle or advanced life. It is true, complete prolapse, the last miserable state of the disease, is generally found in those who have passed their thirty-fifth or fortieth year; but the first stage of descent ordinarily commences early in the childbearing period of life.

“2. In a majority (perhaps I might say in a great majority) of instances, the complaint follows a first labour; and that from causes which have already been stated.

“3. When first labours are tedious, more especially when this appears to be owing, in any measure, to the great size of the child, it behoves us to be on our guard against the occurrence of the disease during the puerperal period,—that is, during the first six weeks.” (P. 402.)

Mr. Robertson disapproves of astringent lotions, and recommends those afflicted with this disease in the slightest degree never to suckle longer than five or six months. We agree with the author in the latter point, as nothing can be more certainly destructive of a weak constitution than the long and draining sucklings which we so often see among the poor; but we should reluctantly give up the use of astringent injections, as we believe them to be not only useful, but immediately and powerfully so.

Several other articles contain matter worthy of being transferred to our pages; but we hasten to conclude this notice, lest our readers should find fault with the re-distillation of papers already subjected to an editorial alembic. Yet we would ask, what can be more useful, or more consonant with the character of a practical Journal like this, than the humble office which we have just performed, of analysing and abridging, and giving in a few pages, the pith of volumes?

The Anatomy and Physiology of the Liver. By FRANCIS KIERNAN, Esq., M.R.C.S. [From the *Philosophical Transactions.*]—London, 1833. 4to. pp. 60.

THE minute anatomy of morbid structures has of late years been prosecuted with great assiduity. While we do not agree with those who think such researches frivolous, we may be forgiven for doubting whether they will ever be productive of the practical advantages expected from them. It is much to be lamented that an equal share of attention has not been bestowed on the minute anatomy of healthy organs, from which, in our opinion, much more important results are likely to follow, since it has rarely happened that a laborious investigation of the intimate structure of any organ has not

conducted, in some degree, to the elucidation of its functions. All that is most certain in physiology has been derived from this source; nor, in the conduct of such inquiries, should any peculiarity of structure, however apparently insignificant, be considered unworthy of attention. A careless anatomist, for example, in examining the valves of the veins, might content himself with looking at a few of them, and, finding them all to be merely reduplications of the internal membrane, and all nearly alike, might think their further investigation superfluous. Harvey was at the trouble of tracing them throughout, and found indeed that they were all alike in a most important particular—they all leaned the same way; and it was mainly on this fact that he built one of the most splendid discoveries ever made in science.

We have derived much pleasure and instruction from the perusal of Mr. Kiernan's paper. His anatomy of the liver is by far the most complete and satisfactory hitherto published; and, in giving to the world the results of his own observation, he has been careful to ascertain what had been done by his predecessors: a species of diligence which cannot be too much commended, and in which it were to be wished that he had more companions; the maxim "*decies repetita placebit*" having been rather too extensively adopted by the medical discoverers of the present day.

The substance of the liver, as is well known, consists of a congeries of small lobules; and the most interesting part of the paper before us refers to the distribution of the blood-vessels and ducts in and around these lobules: of this we shall endeavour to give a brief abstract, afterwards quoting some passages in illustration of other points in the anatomy and physiology of the organ. We may premise that, if, in so intricate an anatomical description, we should, in any instance, misconceive our author's meaning, we are, saving our infallibility, open to correction.

The vessels of the liver are—

I. The HEPATIC VEINS, which consist of

1. The *intra-lobular* hepatic veins, which are contained within the lobules: one of these occupies the centre of each lobule, and receives the blood from four or six smaller branches which terminate in it. The *intra-lobular* veins correspond in their ramifications with the form of the lobules whose substance is placed around them; and, as will presently be shown, they receive the blood from a plexus formed in the lobule by the *portal vein*.

2. Hepatic veins, which are contained in *canals* formed by the lobules: these, for the sake of perspicuity, we shall call

canalicular veins. The formation of the canals differs according to the relation of the contained vessel to the intra-lobular veins: where the intra-lobular terminate directly in the canalicular vein, the canal of the latter is necessarily formed by the bases of the lobules resting upon it, and the contained vein is termed *sublobular*; where the canalicular vein is not formed immediately by the intra-lobular, but by the junction of several other canalicular veins, the canal containing it is formed by a tubular inflection of the surface of the liver; so that, in the one case the canals are formed by the continuity of the *bases* of the lobules, and in the other, by the continuity of those surfaces which will be presently described as *capsular*.

II. The PORTAL VEINS, HEPATIC DUCTS, and HEPATIC ARTERIES, which must be described together, because they accompany each other throughout their course, being all contained in the *portal canals*. These canals begin at the transverse fissure, where they are continuous with the concave surface of the liver; and, like those of the larger hepatic veins, they are formed by the *capsular* surfaces of a certain number of the lobules.

To understand the distribution of the vessels contained in these canals, we must trace the course of *Glisson's capsule*. The liver is invested by a membrane, which stands related to it much as the pia mater does to the brain: it is a cellulovascular membrane, which is reflected inwards at the transverse fissure, and encloses in a sheath the portal veins, the hepatic arteries, the ducts, the nerves, and the absorbents: it is here that it is called the capsule of Glisson, in the ordinary language of anatomists. A continuation of this membranous sheath accompanies the contained vessels to their minutest ramifications; it enters the interlobular fissures, and, with the vessels, forms the *capsules* of the lobules; it finally enters the lobules, and, with the blood-vessels, expands itself over the secreting biliary ducts. Hence arises a natural division of the capsule into three portions—a *vaginal*, an *inter-lobular*, and a *lobular* portion.

At the transverse fissure, the duct, vein, and artery, divide into branches which enter the *portal canals*, invested with the above-described membrane, the membrane lining the canals and enclosing the vessels. These branches, again, divide and subdivide into smaller branches, which enter smaller canals, and every canal, however small, contains one principal branch of each of these vessels; frequently, however, two ducts and two arteries are contained in the same canal.

To the larger vessels the terms *hepatic ducts*, *portal veins*, and *hepatic arteries*, may be restricted, in order to distinguish them from the branches. The excreting ducts are composed of the hepatic ducts contained in the canals, of their vaginal branches, also contained in canals, and of the interlobular branches, which, arising from the vaginal branches, ramify in the interlobular fissures. The interlobular ducts enter the lobules, in which they form plexuses: these plexuses may be called the *lobular-biliary*, or secreting biliary plexuses, the ducts composing them being the secreting organs of the bile. The excreting ducts and their branches are invariably accompanied by the arteries and portal veins, and their branches, the former conveying blood to their coats, the latter conveying it from them. A duct is never unaccompanied by an artery and a vein, the vein being always a branch of the portal. The veins and arteries also enter the lobules: the veins form plexuses, the branches of which terminate in the intra-lobular hepatic veins; and from the blood circulating through these plexuses the bile is secreted. The lobular arteries are exceedingly minute, and few in number: they are the nutrient vessels of the lobules, and probably terminate in the plexuses formed by the portal vein. From the ducts, veins, and arteries, therefore, three sets of branches arise, namely, the *vaginal*, the *interlobular*, and the *lobular* branches.

Such is the best account we are able to give of the distribution of the vessels of the liver, according to Mr. Kiernan. We fear that the want of engravings may prevent our description from being as perspicuous as we could wish; but we shall not attempt to illustrate the matter further, since, as Hudibras sagely observes,

“ brevity is very good,
When w' are, or are not, understood.”

Want of space obliges us to omit many of the able anatomical descriptions with which Mr. Kiernan's paper abounds: we subjoin, however, a few extracts, chiefly with the view of inducing the reader to peruse the entire memoir, which will not fail to reward him amply for his trouble.

In the following passage our author explains the manner in which the veins of the liver inosculate with each other.

“ Ramifying in fissures which are continuous with each other throughout the whole liver, the interlobular branches of the portal vein anastomose freely with each other, enveloping every lobule in a venous web: the intralobular branches of the hepatic veins, on the contrary, confined within the lobules, have no direct communication with the corresponding branches of the surrounding lobules,

from which they are separated by the substance of these bodies, and by the intervening interlobular ducts, veins and arteries, situated in the interlobular fissures; and one intralobular vein can be injected from another only through the medium of the intervening portal veins. When injected with mercury or size, the intralobular veins appear in the centres of the lobules in the form of points, stellæ, or twigs; these veins, therefore, unlike the interlobular portal veins, do not anastomose with each other. If, by means of a pipe and glass tube, mercury be thrown into a large hepatic vein on the surface of a section, it will return by several smaller neighbouring hepatic veins, which, generally, are branches descending to terminate in the larger vessel in which the pipe is fixed. If these vessels be tied, the mercury will return by large hepatic veins, situated at a distance from the injected vessel, and not branches of it. In this experiment the force used is not sufficient to propel the mercury through the intervening intralobular, lobular and interlobular veins, and by such means to form a communication between the two hepatic veins; for if force sufficient to effect this were used, the mercury would return by portal as well as by hepatic veins, which is not the case. If the inferior cava be opened at its posterior part, and if by the same means mercury be thrown into a small hepatic vein, it will immediately return to the cava by other hepatic veins, without appearing in the superficial intralobular veins, and without passing into portal veins. From these experiments, it appears that the sublobular veins anastomose with each other, and that their intralobular branches do not.

“The most superficial vessel, the intralobular branches of which are seen on the surface, should be chosen for these experiments, and, in order to ascertain that the mercury does not pass into the portal vein, a section of the liver should be made at some distance below the injected vessel. A glass tube and pipe, whereby the pressure may be graduated, should be always used in these experiments. Size injected into one hepatic vein will always, and wax will sometimes, return by other hepatic veins.

“By contrasting the hepatic veins with the portal vein, we find that no two intralobular branches of the former anastomose with each other; that the interlobular branches of the latter form one continuous plexus throughout the whole liver; that the sublobular veins anastomose directly, and not through the medium of the intralobular branches; that the portal veins have no direct communication with each other, but anastomose by means of their interlobular branches; that the hepatic veins, like the other veins of the body, proceed in a direct course to their termination in the cava; that the portal vein, accompanied by an artery, resembles an artery in its ramifications; that the larger hepatic veins, having longitudinal fibres in their coats, differ in structure from the portal vein; and that the blood contained in the liver after death is almost invariably found in the hepatic veins, the portal vein being usually empty.” (P. 736.)

From the double venous circulation carried on within the liver, it results that this organ is naturally in a state of sanguineous congestion. "Hence," says our author,

"arises the great difficulty of making successful injections of the human liver: the plexuses may, however, be frequently well, but seldom equally, injected, and always with greater success from the portal, than from the hepatic vein, the latter, and those portions of the plexuses immediately surrounding its intralobular branches, generally containing whatever blood may remain in the liver after death. The plexuses may be always injected with facility from the portal or hepatic veins, and the injection will pass freely from one vein into the other without extravasation, if the liver has been previously deprived of all its blood by the ligature of the portal vein and hepatic artery in the living animal. Anatomists have considered, that the free communications which exist between the two vessels obviate the difficulty which would otherwise arise in the circulation through the liver, from the want of power consequent on the presence of the two veins; and, although the communications between these vessels appear, upon experiment, to be more free than those which exist between the hepatic artery and the portal vein, and between arteries and veins generally in other parts of the body, yet it appears that the arteries and veins in the spleen and kidney, and probably in all glands, communicate with equal freedom. The lobular venous plexus is best examined in the superficial lobules; but here again the human liver presents a difficulty, particularly in the adult, in consequence of the opacity of the proper capsule: the liver of the cat, and that of the smaller animals generally, appear to have no cellular capsule, and are consequently more favorable for this purpose.

"The venous plexus ramifies on the biliary plexus: the blood circulating through it is composed of the portal blood, and certainly of that portion of the arterial blood which, having nourished the excreting ducts and supplied them with mucus, and having circulated through the vasa vasorum of all the vessels, becomes venous, and is received into the branches of the portal vein, by which, with the portal blood, it is conveyed to the plexus; and from this mixed blood the bile is secreted." (P. 745.)

Anatomists have long described two distinct substances in the liver, one red, and the other yellow: Mr. Kiernan, however, denies the validity of this distinction, affirming that the substances are essentially the same, and that the red colour is produced merely by congestion. After a full detail of the opinions of preceding anatomists, he continues,

"My attention was first directed to the anatomy of the liver by the study of the admirable works of M. Andral. In the first organs I examined, I found the small branches of the hepatic veins ramifying exclusively in the red, and those of the portal vein in the

yellow substance. I concluded that the liver was composed of two venous trees, a portal and an hepatic tree, the former having a cortex of yellow, the latter of red substance; and with M. Boulland I thought it probable that the red substance was the organ of the function imagined by Bichat. I next ascertained the lobular structure, and concluded with Ferrein that the red substance was medullary, and the yellow cortical. Subsequent dissections, in which I found branches of both the portal and hepatic veins ramifying in the red substance, tended to unsettle the opinions I had formed respecting the anatomy and physiology of the two substances; and these opinions were finally overturned by the examination of a liver in which I found the branches of the portal vein alone ramifying in the red, and those of the hepatic veins in the yellow substance. The only conclusion that could be drawn was, that the red colour resulted from congestion; that it was medullary, occupying the centre of each lobule, when the hepatic, and cortical, forming the circumference, when the portal vein was congested. It occurred to me that the kidneys of birds having, like the liver, a double venous circulation, were equally subject to congestion, and would, like it, present an appearance of two substances. Dissection verified this conjecture; but the apparently two substances are red, one, however, being of a much deeper colour than the other. I have satisfied myself by repeated injections, by examination with the microscope, and by experiments on living animals, that the lobules are of the same structure throughout; that one portion of a lobule is not more vascular than another; that the acini of Malpighi, by contrast with the congested vessels, are even more apparent in the red than in the yellow substance; and that these supposed two substances are consequently identical in structure. That secreting biliary ducts are contained in the red as well as in the yellow substance, is proved by the relation given by M. Andral of a case of jaundice with 'coloration insolite du foie.' 'Foie volumineux, pesant, très-dur, se déchirant difficilement, offrant une teinte générale d'un brun verdâtre. En l'examinant avec plus d'attention, on trouve que cette teinte n'est pas uniforme, et que le parenchyme du foie est formé, 1°. par un tissu d'un blanc verdâtre, disposé sous forme de lignes ou de plaques irrégulières (c'est le tissu blanc ordinaire hypertrophié); 2°. par un tissu d'un vert brun foncé, duquel dépend la couleur générale que présente le foie, et qui est l'analogue du tissu rouge ordinaire.' This was a case of vitiated biliary secretion, with general biliary and partial sanguineous congestion. The ordinarily yellow substance was of a greenish white colour, being congested with greenish bile only; the ordinarily red substance was of a deep brownish green, this colour evidently resulting from biliary and sanguineous congestion combined. I have met with more than one case of this kind; I have also seen cases of jaundice in which there was no biliary congestion of the liver, and the highest state of biliary congestion without jaundice. In attempting to estimate the causes of the various shades of colour observed in the

liver, it is not sufficient to examine the cystic bile alone; the hepatic bile should be also examined; and it will be generally found, as in the above case, that these shades of colour depend either on biliary or sanguineous congestion alone, or on the various combinations of both." (P. 752.)

The following are our author's conclusions with respect to the function exercised by the liver.

"The physiological deductions arising out of the preceding anatomical facts are extremely simple. If it could be shown that two substances exist in the liver, it might be fairly presumed that this organ executes two functions; but each lobule being, in itself, a perfect gland, and of the same structure throughout, each lobule, and consequently the whole liver, executes but one function, the secretion of bile.

"It has been shown that all the vasa vasorum of the liver are branches of the hepatic artery and portal vein; that branches of the portal vein arise in the coats of the hepatic veins themselves; and that the veins of the coats of the vessels constitute the hepatic origin of the portal vein. The arterial blood having circulated through the coats of the vessels, becomes venous, and is conveyed by the veins arising in the coats of the vessels into those branches of the portal vein which correspond to the vessels in the coats of which the veins, arise: thus, from the coats of the vaginal ducts, veins, and arteries, they convey the blood into the vaginal veins; and from the coats of the interlobular ducts, veins and arteries, into the interlobular veins. From the coats of the hepatic veins and inferior cava, the blood is conveyed into the interlobular portal veins. In the vaginal and interlobular veins, the blood conveyed from the coats of the vessels becomes mingled with the proper portal blood. This mixed blood is conveyed by the interlobular veins into the lobular venous plexuses, in which the lobular arteries probably terminate after having nourished the secreting ducts. From the mixed blood circulating through the plexuses, the bile is secreted by the lobular or secreting biliary plexuses.

"The blood which enters the liver by the hepatic artery fulfils three functions: it nourishes the liver; it supplies the excreting ducts with mucus; and, having performed these purposes, it becomes venous, enters the branches of the portal vein, and contributes to the secretion of the bile. The portal vein fulfils two functions; it conveys the blood from the artery, and the mixed blood to the coats of the excreting ducts. It has been called the vena arteriosa, because it ramifies like an artery, and conveys blood for secretion; but it is an arterial vein in another sense, being a vein to the hepatic artery, and an artery to the hepatic vein. The hepatic veins convey the blood from the lobular venous plexuses into the vena cava inferior." (P. 754.)

The paper concludes with some remarks on the opinion of those physiologists who hold that the bile is secreted by the

hepatic artery, and an account of an interesting dissection which the author had an opportunity of making, of a child in which Mr. Abernethy found the portal vein terminating in the inferior cava. On this head, however, we must refer the reader to the paper itself; in concluding our notice of which, we have only to regret that our own limits, and the nature of the subject, have not allowed us to do justice to its merits. It is a learned, concise, and well-digested memoir, replete with original observation, and is in all respects highly creditable to Mr. Kiernan's abilities both as an anatomist and a writer.

The work is illustrated with some neat engravings, from drawings by the author, by the aid of which the anatomical details, though necessarily minute and intricate, are for the most part rendered perfectly intelligible.

On the Ulcerative Process in Joints. By C. ASTON KEY, Surgeon of Guy's Hospital. [*Medico-Chirurgical Transactions*, Vol. XVIII. Part I.]

A Practical Treatise on Diseases of the Joints. By W. J. WICKHAM, Surgeon to the County Hospital, Winchester.—Winchester, 1833. 8vo. pp. 178; two Plates.

ALTHOUGH we acknowledge the wisdom of regarding science as of no country, and the philosopher as a citizen only of the world, yet we confess that we are not so thoroughly imbued with this spirit of literary cosmopolitanism as to follow with equal interest native and foreign investigations. On the contrary, we dwell with peculiar pleasure on those subjects to the elucidation of which British talent and industry have principally contributed. Amongst such as appertain to our profession, the diseases of the joints stand, "if not first, in the very first line," as originally classified by a British surgeon, and as owing every subsequent improvement, both in their pathology and treatment, (except in one instance, the use of moxa,) to British observation and experience. But it not unfrequently happens, when any pursuit has been attended by extraordinary success; that a crowd of adventurers are tempted into the same field, under the impression that their labours will be similarly rewarded; forgetting, however, that a rich harvest temporarily exhausts the soil, and that the succeeding crops (if any be obtained,) must be proportionably scanty. The same pains which, on subjects so disadvantageously situated, have yielded no returns, if expended on others hitherto untried, might, and most probably would, have been rewarded by highly valuable practical discoveries.

These observations appear to us peculiarly applicable to the works under review. The ingenuity and talent with which Mr. Key has always prosecuted his inquiries have never been so unsuccessful as in the present instance; and the persevering assiduity and zeal, of which Mr. Wickham's book affords internal evidence, could on very few subjects have been so sparingly recompensed. The errors into which these gentlemen have fallen are of a very opposite character. Mr. Wickham has detailed the result of fifteen years' experience; and, if a book on the treatment of diseases of the joints were required, the fidelity and industry with which his treatise has been executed would entitle it to the attention of the profession: but, as every surgeon is, or ought to be, provided with Mr. Brodie's work, which contains all that is valuable in Mr. Wickham's, its publication cannot be regarded as contributing to the advancement of science, though it may fulfil the author's other intention, by affording the governors of the Winchester hospital a proof of his zeal. On the other hand, Mr. Key, in his search after novelty, has indulged in speculations (to say the best of them) of very questionable value, and has supported them by a train of desultory reasoning, which it is difficult to comprehend, and much more so to analyse or abridge. We shall, however, make the attempt; and, if unable to follow him through the whole labyrinth of his theories, we may select a few passages that may serve as a specimen of his style and arguments.

It is the principal object of Mr. Key's paper to demonstrate that ulceration of cartilage is not effected by the agency of its own vessels, but that it is accomplished by the blood-vessels of the surrounding parts; that the process is modified by the cause which occasions it; that, when it arises from inflammation of the synovial membrane, a highly vascular false membrane is formed for the purpose of removing the cartilage; when from wounds of the joints, the absorption is accomplished by means of the vessels of the opposite synovial surface; and, lastly, when commencing in disease of the bone, certain vascular granulations spring up from the cancellous structure, which act on the cartilage in contact with them.

Now, it is no new theory that cartilage is destroyed by the vessels of the parts with which it is connected, but various arguments have been adduced in opposition to it: 1st, the known vascularity of cartilage during infancy; 2d, vessels are occasionally found ramifying through it during the progress of disease; 3dly, it is evidently endowed with a power of repairing the effects of the friction to which it is constantly

exposed; and, lastly, it sometimes undergoes a morbid change of structure, which can only be effected by the absorption of the old and the deposition of new materials. These objections have been hitherto considered sufficient to overthrow the theory of the extrinsic absorption of cartilage; and it was therefore incumbent on Mr. Key, when attempting its revival, to commence by replying to them; but, so far is this from the course which he has pursued, that he has not even noticed their existence. We cannot, indeed, account for the author's silence on these points, since they are detailed at length by Mr. Brodie. There is, however, one novelty in Mr. Key's hypothesis,—that ulceration, whether in joints or elsewhere, is not effected by means of the absorbents, but by the extreme branches of the venous system, and he states the following as the grounds of his opinion: 1st, parts are disposed to ulcerate in proportion as they are well supplied with blood; 2dly, where absorption is going on there is always a corresponding increase of vascularity; and, 3dly, those structures in which but few vessels exist are intermingled, during the ulcerative process, with a vascular structure. The first is illustrated by the frequency of ulceration in inflamed mucous membranes; the second by the changes which take place during the ulceration of serous membranes; and the third is exemplified in the absorption of ligamentous fibre, which he thus describes:

“The ligament, instead of preserving its usual form and size, becomes distended and feels pulpy. When cut into, the fibres are found to be separated from each other by a vascular structure, which upon being injected has a villous appearance. This interstitial vascular mass is the reticular membrane that, in the healthy structure, unites the ligamentous fibres; under inflammation it becomes highly vascular, and assumes the appearance alluded to, while the fibres of the ligament retain their natural glistening appearance until, in the progress of the disease, they at length become softened and pulpy previously to their undergoing absorption. It is not improbable that the ligamentous fibres themselves are passive in the ulcerative process, which there is some reason for believing is performed entirely by the vascular tissue that surrounds them.” (P. 214.)

Caution in matters of science can scarcely be too highly commended; but Mr. Key's readers would probably have pardoned him, if, after several pages of reasoning, his conclusions had been put in a rather more tangible form than that they are “not improbable,” and that “there is some reason for believing” them. Nevertheless, it appears to us that Mr. Key's confidence is well proportioned to the

strength of his arguments, and that he has shown the correctness of his own judgment in thus lightly estimating their force. The value of the first proposition, that there is a remarkable disposition to ulceration in those textures that are well supplied with blood, may be estimated from a very cursory examination. The choroid coat of the eye, the thyroid gland, and the spleen, are among the most vascular structures of the body, yet are they also among those least liable to ulcerate. On the other hand, if we examine what parts most readily take on this ulcerative process, we must enumerate the cornea (the least vascular tunic of the eye), the cartilages (the parts of the articulations which are most scantily supplied with blood), and the cicatrices of former sores which possess but an imperfect organization.

Mr. Key has not been more fortunate in his selection of the mucous membranes as an illustration of this position. The conjunctiva palpebralis, which is a highly vascular mucous membrane, does not by any means display this disposition to ulceration; and every surgeon must know that the mucous membrane of the urethra frequently suffers considerable violence and laceration from the unskilful use of bougies, while ulceration of this surface is comparatively of rare occurrence. It is undoubtedly true that the lining membrane of the alimentary canal is very liable to ulcerate; but this statement, considered as an argument, is open to an objection which Mr. Key has foreseen, and to which he has endeavoured to reply in the following passage:

“The action of the veins in producing ulceration of a villous surface, as that of the intestinal canal, is by no means rendered improbable by the membrane being abundantly furnished with absorbents. Gendrin mentions that in those who have died with ulceration of the intestine, he has usually found the veins either filled with pus, or inflamed upon their inner surface. The same author relates an experiment of injecting pus into the pleural cavity of an animal, and at the expiration of twenty-four hours finding, on dissection, a considerable quantity of the fluid in the branches of the thoracic veins. Other observations might be adduced in support of the opinion that the function of the absorbents is confined to nutrition, to the removal of interstitial fluids, and to the preservation of the form of the body during growth, or, as Mr. Hunter has termed it, modelling absorption; and that progressive absorption or ulceration is effected through the agency of the extreme branches of the venous system.” (P. 211.)

No expressions could possibly indicate a greater degree of doubt than those with which he commences; yet, within ten lines, this doubt has risen to an opinion, not simply, that veins

may absorb, but that the whole ulcerative process is effected through their agency; and, when we examine the arguments that have had so much power on Mr. Key's mind, our surprise at their effect is rather augmented than diminished: for, though pus has been found in the veins, it is, according to our author's own statement, not always there; hence the action of the veins and the ulcerative process cannot be connected as cause and effect. Besides, pus has not unfrequently been found in the absorbents; a fact which strongly militates against the theory that they are only concerned in modelling absorption. The "other observations" to which Mr. Key alludes are, we presume, to be found in a note containing an experiment, which we subjoin.

"Professor Coleman, of the Veterinary College, at my request, made the following experiment. He caused to be inserted in the inner part of the thighs of an ass a rowel, which, at the expiration of four days, had established a copious suppuration. On the fourth day a small quantity of prussiate of potass was inserted in each sore, and allowed to remain six hours, at the end of which period the animal was killed. To ascertain which of the two systems, the venous and the absorbent, had taken up most of the *salt*, I removed some blood from the iliac veins on both sides, and some from the mesenteric veins; and Mr. Coleman's dissector collected half an ounce of fluid from the thoracic duct. These I submitted to Mr. Alfred Taylor, our lecturer on medical jurisprudence and chemistry, who favoured me with the following analysis. 'No. 1, the blood from the iliac veins, contains the prussiate in large proportion. No. 2, the serum from the thoracic duct contains it in about the ratio of $\frac{1}{50}$ of No. 1; and No. 3, the blood from the mesenteric veins, after standing six days, shews evidence of the prussiate in the ratio of about $\frac{1}{50}$ of No. 2, and therefore, of about $\frac{1}{2500}$ of No. 1.' (P. 212, *note*.)

It is generally believed that the absorbents communicate with the veins during their whole course; but we need not remind so excellent an anatomist as Mr. Key, that there is a distinct absorbent trunk opening into the iliac vein. The presence, therefore, of the prussiate of potass in these veins demonstrates nothing, since it might have found admission by this absorbent vessel; and the minuteness of the portion found in the mesenteric veins only corroborates what might have been anticipated, viz. that a part of the salt had been eliminated during the progress of the blood through the body. Thus, all that this experiment can be said to prove decisively is, that the absorption is partially, if not wholly, carried on by the absorbents,—the very conclusion which it is intended to controvert. By a very slight modification of the

same line of argument, we might expose the futility of Mr. Key's next position, viz. that "all structures, previously to being removed by ulceration, become unusually vascular, as if a more complete development of the sanguineous tissue were essential to this mode of absorption," and reduce it to its old-fashioned form, that ulceration is one of the sequelæ of inflammation.

Ere we quit this part of our subject, let us be careful not to be misunderstood. We do not mean to deny the action of the veins in absorption; we mean only to dispute the sweeping proposition of Mr. Key, that ulceration is effected through their agency alone, and to show that the arguments which he employs are not entitled to the importance which he attaches to them, while he totally neglects to notice others which lie on the surface, but which militate against his opinion. What can be more striking than the phenomena attendant on the absorption of certain poisons?—syphilis, for instance. It has never fallen to our lot to witness inflammation of the veins of the penis from the irritation occasioned by the passage of the virus: but a chancre and a bubo have been almost as closely associated in our mind as a sound with its echo; and we should as soon have dreamed of doubting the connexion between the former as between the latter.

We now follow Mr. Key to his exposition of the doctrine of passive absorption of cartilage; and his reasoning upon this subject is, if possible, more inconclusive than on the former.

Having stated the appearances presented during the absorption of ligamentous fibre, which we have before quoted, and which we may now paraphrase into a form under which our readers may perhaps recognise an old acquaintance, viz. that when any part, consisting of two different structures, is inflamed, that structure which is most vascular in health will be the most injected during disease:—having stated this, Mr. Key proceeds to describe the absorption of dead bone in necrosis, and to draw an analogy between this process and that of the absorption of cartilage. Now, had Mr. Key been satisfied with informing us, that "the dead bone, having no power of self-removal, the surrounding parts are called upon to perform the office of removing the useless mass," none of his readers could have accused him of a taste for innovation, and we for our parts should have so far assented to its truth as to rank it amongst self-evident truisms; but, when our author proceeds to argue that, because dead bone cannot perform any vital action, therefore it is probable that such

vital actions cannot be performed by living cartilage, far from being able to trace an analogy, we rather recognise an antithesis, of circumstances.

We turn, however, with no small degree of pleasure from Mr. Key theoretical to Mr. Key practical; and we wish that we were able to devote a larger portion of our review to this part of the subject. His descriptions of the appearances presented in post-mortem examinations of diseased joints are extremely vivid, and evince the hand of a master. The following passage will excuse us for quarrelling with Mr. Key's theories, since they have occupied much of his paper, and cheated us, perhaps, of many such descriptions.

“The first circumstance that strikes us, on opening a diseased joint, is, the different degrees of ulceration in the articular surfaces, and the different extent to which the interarticular cartilage and ligaments have suffered. This will depend upon the part in which the diseased action has commenced, which perhaps in most cases is determined by accident, as the seat of the blow or sprain which may have excited the inflammation, or the form of the joint producing unequal bearing upon the surfaces, and thus determining the inflammation to that part where the pressure is greatest. The inner part of the knee joint usually exhibits the most extensive ulceration on account of the oblique bearing of the femur, and its consequently unequal pressure on the inner part of the head of the tibia. We therefore find the inner semilunar cartilage more often destroyed than the outer, and a corresponding destruction of the cartilage covering the inner condyle of the femur and inner part of the head of the tibia. The patella and the extremity of the femur are the parts on which the ulcerative process can be best traced on account of the disease being in these less advanced. In the former bone the first part that commonly gives way to ulceration is the margin of the cartilage, where the synovial membrane is reflected from it. At this point sulci of different depths are formed which cannot be always distinguished, until the thickened edge of the synovial membrane is raised. The ulcerated surface sometimes exhibits parallel vascular lines verging towards the centre, and having their origin from the synovial membrane. The synovial membrane at this part, if the vessels are well filled with fine injection, appears highly vascular, and fringed or villous like a mucous membrane. This increased vascularity is particularly noticeable at the edge of the membrane, and in these portions of the fringed margin that correspond to the ulcerated surface of the cartilage; the other parts of the synovial membrane have their vascularity but slightly increased. This highly vascular fringe of membrane is a newly organized, and will be found in some parts to be a superadded, structure, for the purpose of producing ulceration of the contiguous cartilage. It may when recently formed be raised in some parts from the synovial membrane, but is found to adhere very slightly

to that part of the cartilage where ulceration is going on; this adhesion is not perceived unless the joint is opened with care." (P. 222.)

In describing the progress of ulceration of the cartilage of the hip-joints, Mr. Key states his belief that it commences more frequently in the ligamentum teres than is generally supposed; but, as he gives due credit to Mr. Brodie's assertion, that it does exist as a primary disease, so far from controverting his opinion, we shall quote it, for the instruction of our readers.

"The beginning of the affection is frequently to be traced to a fall, by which the legs have been forcibly separated, and the ligamentum teres stretched. In some cases, the injury has been so considerable, as to occasion the patient to rest the limb for some days, on account of the severity of the pain. This to a certain extent subsides, and the inflammation that remains assumes the chronic form. If the patient's health is good, he recovers with only a slight temporary weakness in the joint; in the more feeble habit, with a tendency to strumous action, the disease gradually passes into the ulcerative form. Sometimes, from the tender age of the child, no cause can be assigned for the disease; perhaps, in some instances, it may have a purely constitutional origin. The motions of the joint, that give the patient most pain, are strongly indicative of the seat of the affection; in the earliest stage, before the soft parts could well be affected, if the disease commenced in the cartilage, eversion of the thigh, and abduction of the limb from the other, produce the greatest degree of suffering to the patient; while he can bear the joint to be flexed, and to be slightly inverted, without complaining. A similar indication of the ligamentum teres being inflamed, is the pain sometimes expressed on pressing the head of the femur against the acetabulum; in its healthy state the ligament, being lodged in the hollow of the acetabulum, receives but little pressure; but when it is swelled by inflammation, the cavity of the joint affords it less protection, and when pressure is made by forcing the head of the femur upwards, the ligament is compressed, and usually produces some degree of pain. The circumstance, too, of the ligamentum teres being destroyed by ulceration, when the head of the bone and acetabulum are only partially ulcerated, may be considered as presumptive proof of it being very early engaged in the disease. There are few cases of post mortem inspection of the hip-joint in an advanced stage of disease, in which the ligamentum teres is not found destroyed." (P. 231.)

We must here terminate our quotations. We could have wished that Mr. Key had more carefully revised his paper before he consented to its publication; for his arrangement might have undergone considerable improvement, and some important errors might have been corrected. He states, for

example, that there are four methods in which ulceration takes place in cartilage, and details but three, substituting for the fourth an account of its conversion into a fibrous structure. He would probably, too, have thought it right to suppress certain parts, in which he expresses a most unsatisfactory degree of doubt. Thus, in a single page, we find the following hesitating expressions: "There are some circumstances that tend to throw some doubt;" "it is by no means satisfactorily ascertained;" "is still less definitively understood;" "it yet remains a problem;" and "is by no means rendered improbable:" besides one or two others, which betray but little more confidence.

In common with all our professional brethren, we feel under obligations to Mr. Key, for his ardent pursuit of science, and his readiness to communicate whatever appears to him to be important; but, we regret that a surgeon, possessing such ample opportunities of watching disease, such accuracy of observation, and such powers of description, should display so great a predilection for hypothesis. We would venture to remind Mr. Key, that the cause of science is more advanced by the publication of a single fact than by a whole volume of theory; that men of the most transcendent talent have not deemed it beneath them simply to detail what their eyes have seen and their hands have handled: and we desire to recall him to that course of strict investigation which has been consecrated by their invaluable discoveries.

We have devoted so much space to Mr. Key, that we can afford but little to Mr. Wickham; but this is of the less consequence, as he lays no claim to novelty for his opinions, and there is, consequently, no room for discussion. His arrangement of his subject is simple, and it is so far good, though he has left so many points untouched, that his work would be better named a Treatise on *some* of the Diseases of the Joints. Meanwhile he has introduced certain topics rather unnecessarily: for instance, he commences with an account of various kinds of exostoses in the vicinity of the articulations. Now, as these have no connexion with the structures of which the author professes to treat, excepting in as far as they impede their motion, he might with equal propriety have introduced an account of popliteal aneurism, or of glandular abscess in the axilla. Caries of the bones, and necrosis, are in a great measure foreign to his subject; and it appears to us that such little notice as it might be requisite to take of them would more properly have been stated in

connexion with their effects on the joints. Again, the author considers the scrofulous affections of the bones, ultimately causing absorption of the cartilage, as synonymous with necrosis and caries: be this as it may, (and we are inclined to differ with Mr. Wickham,) yet the difference of treatment required ought to have secured for them a separate consideration.

In reviewing a work, it is a good practice to select a passage, in order that the reader may judge for himself of the style in which it is written; and, as we have devoted the former part of this article to the pathology of ulceration of the cartilage, we shall quote Mr. Wickham's account of the symptoms of that disease during life. It forms a good specimen of the merits of the whole work, as the author has evidently bestowed more of his attention on the means of detecting disease, and the method of curing it, than on any curious questions concerning its nature and causes.

“Primary ulceration of the cartilage is characterized by strongly marked symptoms, which differ essentially from those which accompany diseased action in other parts of the joint. They are such as satisfactorily to lead to a detection of the actual seat of the disease.

“The pain is peculiar: it is continued, and of the pricking kind. Patients describe it by saying they feel as if an animal was gnawing at the part. This pain is deep in the articulation; but there is for the most part a remote or distant pain, a dull and continued aching down the lower part of the limb. This pain, although generally extending along the whole, now and then confines itself to one particular spot. Even then the pain is the same, resembling that of rheumatism. When the cartilage of the hip joint is inflamed, the distant pain is particularly along the outer side of the thigh, knee, and legs; but it is most severe in the knee and ankle. In disease of the cartilage of the shoulder, the pain extends along the outer side of the arm to the elbow, and onwards to the two last fingers. The distant pain is generally accompanied by a slight degree of numbness, and in very irritable persons by cramps or spasmodic twitchings of the large muscles of the limb. This is a great aggravation of suffering, and renders it scarcely tolerable. The pain, both that which is in the joint and that which is at a distance, is aggravated by pressure or forcing one bone against another; and it is curious to observe, when the pain of the joint has been in less degree than the remote pain, how decidedly pressure produces the distant pain: for example, I have repeatedly found pressure on the groin revive the great suffering which the patient has been affected with in the knee, in cases of disease of the cartilage of the hip.

“*Absence of Swelling.*—In the first stages of this disease no swelling of the joint is observable. It is only when the inflammation has extended to the other textures that swelling occurs. The

distinctions, then, by which disease of this structure is to be known, are the peculiarity of pain, and the absence of swelling. These are the only symptoms of the first stages of the attack, and do not vary until the inflammation has proceeded to other parts; when, however, this does take place, new symptoms arise, and are such as are attendant on disease commencing in the other textures. There is one symptom which may be perceived in the latter stages of ulceration of the cartilage, which cannot be discovered until absorption has gone to a considerable extent. I mean a grating sensation by friction of one bone against another. To detect this, it is necessary that a surgeon should be familiar with the peculiar sensation communicated, and should be able to distinguish it from that of fracture within the joint, or the crackling of certain states of bursal inflammation. Primary ulceration of the cartilage happens more frequently in subjects which partake of a scrofulous habit of body than in other constitutions. I do not mean to say that the disease is in the least degree to be identified with scrofula; but it appears most commonly in feeble and delicate constitutions, and particularly in those persons who have been subject to glandular affections of a scrofulous character. It appears commonly in children, or those about the age of puberty. It is comparatively of rare occurrence in persons in after-life. For the most part no cause can be assigned for its coming on; still it sometimes may be traced to injuries or concussions which the joint may have received, the constitution or part not having power or activity to repair the mischief. This affection is very frequently preceded by fevers, following, after the manner of abscesses, close on the convalescence from any severe febrile disorder. Debility of constitution, whether natural or induced by previous complaint, is favourable to the occurrence of this complaint. That ulceration of the cartilage appears as a constitutional affection is very manifest, from the circumstance that a disposition exists in some persons to take on this disease in several joints at the same time, without sufficient local exciting cause to bring it into action." (P. 49.)

In his treatment of this affection, Mr. Wickham agrees with every good practical surgeon, as to the importance of absolute rest. His observations on this subject are worthy of quotation.

"In all cases of diseased action going on within the articulation, but more particularly in inflammation of the cartilage, rest is to be considered the most important and efficient means of arresting its progress. It is important, because no other remedy can be serviceable without perfect quietude; and it is efficient, inasmuch as it is of itself oftentimes enough to effect a cure. It is a well known fact that an inflamed surface cannot recover itself so long as it is suffering under the continuance of an irritating cause. A wound will not be cured so long as its surface is rubbed, and the efforts at cicatrization are thereby prevented. Let us apply this reasoning

to the condition of the articulating cartilage under ulceration. Every motion of one bone upon another must by friction irritate the inflamed and ulcerated cartilage, and, moreover, where a healing process has actually commenced, it is entirely undone by a single movement. It is therefore to be kept in view, that it is not only necessary to preserve the joint at rest in order to remove the irritating cause and subdue the inflammation which has begun, but also to prevent the whole respiratory process which has been in operation from being rendered fruitless. On the first appearance of symptoms, then, which indicate inflammation of the cartilage, I confine the joint to a perfect quietude by means of a pasteboard splint, and such trappings as may effectually secure the joint from motion, or from the least friction on the diseased surface. I bear in mind also, that the first act of inflammation in the cartilage is its destruction, and that it is necessary to continue the restraint until the ulcerated surface may have become healed. For want of this precaution, and the surgeon delaying his permission of motion, I have witnessed much mischief in the relapse of the case; and this especially when the patient is to be removed from the vigilant eye of the surgeon." (P. 53.)

We are not friendly to endless subdivisions of diseases; they rather confound than elucidate the subject: but Mr. Wickham appears to have fallen into the opposite error, and has not admitted even those divisions of his subject which are valuable in practice. In addition to the instance of scrofulous disease before mentioned, we observe that, under the head of acute idiopathic inflammation of the synovial membrane, he classes the rheumatic and gouty affections of the joints, without noticing the difference of treatment which they require.

If we were inclined to quarrel with Mr. Wickham, we should complain of certain rather lengthy arguments to refute errors long since abandoned. The term *spina ventosa*, with the absurd theory on which that name was founded, has long since peacefully slept with its fathers; but our author has again called it into being, apparently for no other purpose than to repeat the pleasure of destroying it.

Again, when treating of the supposed elongation of the limb in incipient disease of the hip-joint, he offers the following explanation of its cause, and then proceeds to demonstrate its correctness.

"The deception is, I conceive, produced by the position into which the limb is thrown by rigid muscular action. It will be observed that the leg is projected away from its fellow, and the toe is turned a little outwards, so that a person comparing the two legs will bring the sound towards the affected, rather than by great force and consequent pain draw the inflamed limb towards the sound

one. Thus the sound leg does not traverse the median line without losing from an inch and a half to two inches of its length." (P. 157.)

Now, it has not fallen to our lot to see such a clumsy expedient put into practice; a piece of tape does away with the error, and the necessity of an explanation.

But the taste of searching out errors is as useless as it is unpleasant. The general impression which the perusal of a book leaves upon the mind is what is really valuable: our impression, then, in closing Mr. Wickham's book, is, that its author is a very sensible practitioner, who has thought much on professional subjects, and who has faithfully recorded his experience, which is valuable as additional testimony in corroboration of Mr. Brodie's statements; and though we cannot flatter him that his treatise will be generally perused while Mr. Brodie's work exists, yet it will certainly add to his reputation as a sound and scientific surgeon.

The Principles and Practice of Obstetrics, as at present taught by JAMES BLUNDELL, M.D., Professor of Obstetrics at Guy's Hospital. To which are added, Notes and Illustrations, by THOMAS CASTLE, M.D., F.L.S.—London, 1834. 8vo. pp. 838.

AMONG those practical problems which are daily debated, yet never solved, there are few more difficult or more important than those which relate to the best method of acquiring the arts and sciences. It is often mooted, for instance, whether the young student should be taught to swim with bladders or without them; whether some kind instructor should ever be at hand to clear up even the shadow of a difficulty, or whether he should be compelled, as soon as possible, to rely on his own unassisted endeavours, and have success, as it were, forced upon him by the lessons which nothing can give like repeated failures. Again, it is often inquired, in our art, whether, after the inculcation of a few theoretical principles, the future physician should be told to rely on the study of nature alone, or whether he is to be perpetually referred for directions to those volumes in which the lights of medicine have recorded their experience. The greater or less value of lectures, too, may very fairly come under discussion: it is often urged against them, that the professor, after all, is merely reading a ms. book to us, and that Denman or Merriman will give us, in a less fleeting form, and for a smaller price, all that can be obtained from the first obstetrical lecturers of the day. To this it may be answered, that many, or most, branches of medicine require the auxiliary aid of drawings and preparations; that it would be

infinitely difficult to drive pupils through Smellie or Denman, but that it is comparatively easy to procure their attendance at lectures by statutes for that case made and provided; and, lastly, that a really good lecturer can not only invest the darkest and dreariest parts of our art with the rich hues borrowed from learning and imagination, but can even perform the still more arduous task of adding fresh beauties to those brilliant points which would seem to defy the aid of ornament, and which often form the most disappointing portion of a course, from the exaggerated expectations which they are apt to excite. But these advantages depend on his manner, his animation, his fluency: let his words be printed, and the charm is gone; his minuteness will seem dull, his vivacity may be called petulance; we have the contortions of the Sybil without her inspiration. Discourses must be exquisite, indeed, if they can please when thus dissevered from their better half. A cast from the features of deceased beauty may attract, but who would tolerate the lifeless copy of every-day mediocrity? Hence we are surprised at the custom, which has prevailed for some years, of constantly publishing lectures in the Journals, as if they were the most essential and most agreeable part of the medical literature of the day; and therefore, although we shall notice the work before us, from our respect for Dr. Blundell's reputation as a teacher of midwifery, yet, as the book is professedly elementary, our notice will be a short one, from our respect for our readers.

Dr. Blundell gives the following account of the chief differences between the male and female pelvis.

“The differences which characterize the male or female pelvis are six, more or less considerable.

“First:—In the male there is a certain roughness and bulkiness and weight, which strikingly contrast it with the lighter and smoother and more elegant pelvis of the female. Secondly:—In the male pelvis, the ilia, or wings of the ossa innominata, are more erect; in the female more expanded. Thirdly:—in the male the brim is more rounded, though tending somewhat to an ellipse, the long diameter of which stretches from before backward; in the female, the brim, though sometimes rounded, is generally oval, and the long diameter lies between the sides. Fourthly:—Male pelvis deep; female pelvis shallow. Fifthly:—The male outlet very small; the female outlet very capacious. Sixthly:—In the male, the arch of the pubes is contracted; in the female it is capacious, to make room for the more ready passage of the head.” (P. 20.)

Soemmerring, who, in his account of the measurements of the pelvis, has copied a previous writer, tells us that the great

diameter of the brim of the pelvis, or, in other words, the distance between the ossa iliūm, should, in the female, be five inches and six lines; and the smaller diameter, or distance from the sacrum to the os pubis, should be four inches and eight lines: while the former diameter, in the male, is four inches and six lines, and the latter from four to five inches. (*S. Th. Soemmerring, de Corporis Humani Fabricâ*, tom. i. § 446.) It would seem doubtful, therefore, whether, in the opinion of this great anatomist, the diameter from ilium to ilium, or from sacrum to pubes, be the greater in the male.

We do not know what inches Soemmerring (or the author whom he transcribes,) employed in his measurements, which will consequently show only the relative, and not the absolute, diameters of the pelvis.

It is not surprising that the duration of pregnancy should still be a matter of dispute, as opportunities of ascertaining it with scrupulous exactness are few and far between; and writers, gratified with the cases in which it was possible to do so, have too hastily built a theory on two or three examples, and have probably sometimes elevated the exception into the rule. Dr. Blundell thinks that the most usual duration of pregnancy is thirty-nine weeks, plus one day; he says, "I was surprised to learn that, in a late investigation before the tribunal of the empire, nine months of the calendar, and forty weeks, were, by some of the witnesses, used interchangeably, as if they were commensurate periods: the error will appear on a little calculation, as the period of nine months is exactly equal to that of thirty-nine weeks, plus one day, provided of these nine months five are of thirty days only, and four of thirty-one." (P. 175.) These witnesses would certainly not have been qualified to revise a new edition of Scaliger de Emendatione Temporum; but our author has fallen into an error of the same class, as it is impossible to pick out nine consecutive months, of which five shall have thirty days, and four thirty-one. Our opinion is, that the duration of pregnancy may vary considerably; a supposition backed not only by the unfixed duration in animals, but by the analogous irregularity of the appearance and disappearance of the catamenia in women.

When will some accoucheur arise of sufficient courage to avow, that in natural labour there is nothing to be done, and that the duty assigned him of supporting the perineum is an imaginary one? And when shall we have a race of accoucheurs who will instruct their patients, that perpetual examinations are worse than useless, and that, in ordinary cases,

tincture of time (as Gooch facetiously called it,) is the only remedy required? More than half our progress in knowledge consists in unlearning deeply-rooted errors: the poor wear the cast-off opinions of their betters, as well as their clothes, and the piercing cries of "Pray help me, doctor!" are in part the distant echoes of worm-eaten treatises on midwifery.

We do not think that our author will be offended with these strictures, as he has given us a beautiful panegyric on truth, couched in a loftier style than we are accustomed to see in medical writings.

"From the most violent conflicts of opinion, truth has nothing to fear; though long to us, to her a thousand years are but as one day, a point, a nothing in the eternity of her duration. Oppressed, amongst us, beneath the chaos of human follies and errors, she must, she will emerge unhurt at last, unchangeable as her Author. By the mere force of durability, she must ultimately stand alone, solitary amid the wreck of those perishable materials, by which, for a time, she is overwhelmed—'and the ark floated in the midst of the waters.' To her, the living spirit of philosophy, immutable, immortal, infinite, eternal truth, to her, parent of all knowledge, fountain of light, to her may be addressed, without perversion or hyperbole, the sublime apostrophe of the poet,

'The stars shall fade away, the sun himself
Grow dim with age, and nature sink in years,
But thou shalt flourish in immortal youth,
Unhurt.'

(P. 428.)

The operation (as it is called) of Embryotomy forms the subject of perhaps the most difficult question in the whole range of medical ethics. Is it allowable to sacrifice one life to preserve another? or, on the other hand, shall we suffer a woman to perish, when she might be saved by the extinction of the half-existence of a being yet unborn? Our readers well know that the answers to these questions depend entirely on the countries in which they are asked; and that British accoucheurs stand almost or quite alone in their readiness to perform embryotomy. We side with them in those cases where the pelvis will certainly not afford a passage to the child; but we think that the operation cannot be justified by the mere apprehension that the mother *may* sink through the protraction of the labour, or *may* be disfigured by the laceration of the parts. We therefore do not quite agree with our author when he says, "that, in British obstetricy, the life, nay, the preservation of the patient from the graver lesions of her person, is to be looked upon as paramount to every consideration relating to the foetus; and, when these

require the sacrifice, craniotomy becomes justifiable." (P. 546.)

In the section on the means of superseding the Cæsarian operation, Dr. Blundell makes a bold proposal, which will probably be carried into effect some day in these operation-seeking times, to use a phrase of Dr. Jörg, (*in diesen operationssüchtigen Zeiten.*)

"Now, is there any mode in which, when the obstruction of the pelvis is insuperable, the formation of a foetus may be prevented? In my opinion there is: for if a woman were in that condition, in which delivery could not take place by the natural passage, provided she distrusted the circumstances in which she was placed, I would advise an incision of an inch in length in the linea alba above the symphysis pubis; I would advise, further, that the fallopian tube on either side should be drawn up to this aperture; and, lastly, I would advise, that a portion of the tube should be removed, an operation easily performed, when the woman would, for ever after, be sterile." (P. 580.)

Dr. Blundell is well known to be a zealous advocate of transfusion, and in the present lectures he has given the theory and practice of this ingenious but dangerous operation at some length. After showing that the blood of one animal may be substituted for the blood of another of the same species, while that of animals of a different species is destructive; and that blood may be transmitted through a syringe without much deterioration, our author gives the following account of the mode of performing transfusion.

"There are different ways in which transfusion may be performed; and I shall first briefly state to you the method approved now by experience, and which, perhaps, for general purposes, may at present be deemed the best. And first, then, the operation may be executed by means of a well-constructed two ounce syringe, air secure, made of brass, tinned internally, not offensive with oil, of course perfectly clean, and to be used in the following manner: One or two bystanders (males flow more copiously than females) being in readiness to supply the requisite quantity of blood, the arm of the patient should be prepared as follows: taking a scalpel, at one cut, if tolerably dexterous, you lay bare the bleeding vein, which opens on the eye under the knife, the patient being so far from suffering in this part of the operation, that frequently she is not aware that it has been done. The vessel manifesting itself, you take a short curved probe, which you slide beneath it at the lower extremity of the incision, with a well-sharpened lancet, laying open the vein to the extent of about a line, that is, one-eighth of an inch; afterwards introducing, cautiously, at this orifice, the tubule of the syringe, so as to satisfy yourselves that when you operate the entrance will be easy; at this time, perhaps, a little

blood oozes out. This preparation made, you bind up the arm of the person who is to yield the supply of blood, laying open the vein in the usual manner, but making the orifice rather free. In a conical tumbler, of large diameter, the blood may be conveniently gathered; and into the syringe, previously washed and warmed by transmission of water milk-warm, the blood is to be absorbed from the point of the tumbler through the long tubule, in such manner that, although the whole of the blood is not to be taken up lest the air should be drawn in, not more than a dessert spoonful is to be allowed to accumulate at once in the bottom of the vessel; in truth, it is not in the glass, but in the barrel of the syringe that the blood should collect. This tubule should be long enough to throw the barrel of the syringe above and beyond the brim of the tumbler, so that it may be completely out of the way. That it may enter the vein more easily, the end of the tubule may be bevelled, like the tea-pot spout.

“Two ounces of blood from the arm being absorbed in this manner, holding the syringe vertically with the tubule above and the handle of the piston below, you slowly urge the piston onward, till, together with all air, about a dessert spoonful of blood has been expelled; and then closing the nozzle by the apposition of the tip of the finger, lest the piston descending by its own gravity, fresh air should be absorbed, you give the instrument the horizontal direction, and proceed to insinuate the blood into the vein. On approaching the arm of the patient perhaps you find the orifice obscured by the blood; touch the vein with a sponge, and the aperture may be seen as clearly as the letter of a book. At this time an assistant may gently press the vein, where it lies across the probe, which will intercept a further exudation, for the circulation is so low that it is easily arrested. These preliminaries premised, without trepidation, with that calm and measured movement of mind and body, the result, not of mere animal spirits, but of that confidence which arises from a mind well prepared, you proceed to deliver the blood, cautious not to interpose unnecessary delay. For this purpose, the tubule being insinuated into the vein, to the extent of half an inch towards the heart, it is your next office to infuse the blood into the vessel, and very nice and critical is this point of the operation. What the heart in women or men might bear in a state of vigour I do not know, but reduced as it is in these cases, feeble as the limb which refuses to sustain them, it cannot support a sudden influx of the blood. To infuse too slowly is an error no doubt, for, while lying in the syringe, the blood every moment is becoming more and more deteriorated; but to inject too rapidly is a still more fatal error: gorge the cardiac cavities, and the patient may perish as suddenly as if shot through the heart; it is, therefore, with moderate velocity that the blood should be infused, and most cautiously when the collapse is great. In pressing forward the piston, from moment to moment, fix your eye on the countenance, and if all is well, then proceed more boldly; but if

the lip quiver, or the eyelid flicker, or if there be restlessness or vomiting, though these are not fatal symptoms, yet it is better to suspend your operation until they subside, as in the present state of our information there is good cause for alarm; and let me add, that after waiting in this manner, you must not return to the injection, until you have procured a fresh supply of blood. If the first two ounces load, it is better to wait a few minutes, say six or eight, before more is injected; but if these first two ounces are well received by the system, proceed immediately to inject other two afterwards, waiting for eight or ten minutes, till the whole have duly circulated over the body, and, in some measure, at least, have renewed its vigour; under the extremes of weakness, this caution becomes especially necessary. Sixteen ounces of blood for the female system is a large measure, eight or ten are more sparing; four or five may, in delicate cases, turn the scale in our favour. If our object is simply to save life, the smaller quantities must be injected; if to restore vigour, the larger. Whether we transfuse or not after floodings, re-action is apt to come on next day. The entrance of a single bubble of air, though not fatal, is always to be deprecated. Inflammation of the vein is a neat topic of declamation; after the danger is blown over, listen with decent attention; till then you have not time to think about it, Antipater, and the myo-machia, may cross the classical mind. If the blood dribble from the arm which supplies you, or if it be slightly coagulated, it is unsafe, if not wholly unfit, for use. Wash the syringe between each injection. Watch the arm lest it inflame afterwards. If the respiration be stopped, it is, I fear, in vain to transfuse; if respiration is at its last gasp, the hope is small, a sudden influx of two ounces would, I think, certainly destroy in these cases. Would the heart bear, at proper intervals, doses of half an ounce? If the respiration be steady, you are almost certain of success. The best syringes I know of are those of Laundy, Weiss, Reid, and Scott. Laundy's are made according to my own whim; of course I think them preferable. Transfusion from artery to vein, perhaps even from vein to vein, might be accomplished by tubule simply; could you, however, obtain readily those who would supply you in this mode, the arterial transfusion especially would require caution; if the heart were very feeble, an impetuous influx would destroy." (P. 423.)

Dr. Blundell has given a long account of what he calls Hidrotic Fever: it is a low fever occurring after parturition, and accompanied with sweats, (whence its name; from *ιδρως* or *ιδρωτικός*.) Our author has divided this disease into seven kinds; yet, in spite of the pains he has taken with it, we venture to prophesy, that this new malady will not be able to hold up its head among its fellow-fevers. It seems to us to want vivaciousness.

These lectures are upon the whole very good ones, and,

though they cannot aspire to supersede the established textbooks, will yet deserve a place in an obstetrical library. Dr. Castle has performed his task with diligence and fidelity: his notes will be useful to beginners, and show very laudable industry. Considering, however, that his preface is dated from Trinity College, Cambridge, we could have wished his Greek and Latin to have appeared in a more polished state. He might have found at least two hundred undergraduates in that learned body who would have told him that the latter half of *perinæum* is not derived from *πεω*, to accumulate, as he supposes at p. 32 (*note*), but from *πεω*, to flow; and that *ovarium* is not a *diminutive* of *ovum*, as he asserts at p. 37 (*note*), but signifies an egg-bed, just as *rosarium* means a rose-bed. We hope that he will take these friendly hints in good part, and recollect that we expect men to return with gold from Peru, and with knowledge from Cambridge.

Der Alp, sein Wesen und seine Heilung. Eine Monographie, von MORITZ STRAHL, Dr. der Medizin, Chirurgie und Geburtshülfe, und Königlicher Kreis-Physikus.—Berlin, 1833.

A Treatise on the Nature and Cure of Night-mare. By Dr. MORITZ STRAHL.—Berlin, 1833. 8vo. pp. 253.

It is a popular opinion, that nothing qualifies a physician for treating a disease so much as the having suffered under it himself: the man who has become personally acquainted with gout or rheumatism needs no *cramming* to fix their symptoms in his memory:—"those best can paint them who have felt them most." Now, the author of the treatise before us has laboured under this painful advantage: he has been afflicted with the frightful malady which he describes, and the result has been a volume which is very creditable to him in his double capacity of a philosophic historian of the disease, and a patient investigator of its nature and symptoms.

Dr. Strahl gives the opinions of authors, from the earliest ages to the present time, on the nature and essential symptoms of incubus; and shows that most physicians have fallen into error by assuming that night-mare can only take place during sleep, and that it is always accompanied by dreams or visions; and, having demolished their theories by an appeal to facts, he proceeds to give the following definition of the disease: "Night-mare is characterized by a feeling of suffocation and oppression about the præcordia and chest, which mostly comes on during sleep; it lasts only a short time, and completely disappears after a single deep inspiration. If the attack takes place during sleep, loss of the power of speech

and motion frequently occurs in addition, together with the false notion that the sense of oppression is occasioned by some foreign body." (P. 55.)

Our author remarks, that, even when digestion is perfect, various kinds of gas are developed in the alimentary canal; but, in dyspepsia attended with flatulence, much gas is disengaged, which is not only troublesome from its quantity, but injurious from its quality, and painful abdominal spasms, giddiness, fainting, &c. may arise from this source. These symptoms, however, can only be explained on the supposition that the wind (to use the popular expression) is pent up by a spasm of two different points of the alimentary canal, so that the space in which it is confined is dilated; the circulation of the blood being thus clogged, and the nerves pressed upon. That this is the fact, is shown by the removal of the unpleasant symptoms as soon as the wind is got rid of.

Now, a patient suffering from night-mare always has a weak digestion, and particularly a decided inclination to flatulence. A constriction takes place somewhere in the lower part of the alimentary canal, preventing the escape of the air downwards; the air now becomes rarefied by warmth, and the condition arises known by the name of *inflatio ventriculi*. The spasmodic attacks can easily be explained by the dilatation of a large part of the body so richly provided with nerves and blood-vessels. But this dilatation of the stomach must, in particular, prevent the free movement of the diaphragm, by pushing it upwards, and the difficulty of breathing is thus easily explained. The patients feel the necessity of taking a deep inspiration, but the attempt to do so, instead of relieving them, merely increases the distressing sensation about the præcordia: and this is quite natural; for, since the resistance of the diaphragm prevents the due expansion of the lungs, the repeated attempts at a full inspiration, instead of filling the lungs, fill the stomach. The precursory symptoms likewise admit of an easy explanation. The irritable pulse, the electric shocks, and the convulsions, arise from the tension of the nerves and the sluggishness of the circulation in the affected organs.

But, in order to constitute a complete attack of night-mare, another circumstance is wanting, namely, a dilatation of the œsophagus. Amid the morbid phenomena which have been already touched upon, the patient falls asleep. The air in the stomach continues to be rarefied by the heat, and ascends into the œsophagus, which becomes dilated, and presses on the trachea. But, if this pressure has reached its highest pitch, the patient screams out, and suddenly rises,

and at the same time, by an involuntary act of swallowing, presses the air collected in the œsophagus back into the stomach, by which the distressing sense of suffocation is got rid of; or the patient may raise himself up, and discharge the air contained in the œsophagus by frequent eructations. If the patient now falls asleep again, and the spasm at the two parts of the alimentary canal is not yet perfectly resolved, the scene is repeatedly renewed, until that event takes place.

Nosology furnishes us with another disease very similar to the one we have described, namely, *globus hystericus*. In this, too, the fauces are attacked with a sense of constriction, and the patient suffers from a straitened respiration, and a sensation of pressure about the pharynx, as if a ball were fixed there. Together with this, other and frequently severe, spasmodic symptoms are present, which are usually terminated by considerable eructations. This similarity confirms the opinion which the symptoms of incubus had rendered highly probable, and shows that it is a spasmodic disease.

Diagnosis. This is very easy, says our author; for neither asthma, nor any variety of orthopnoea, can be confounded with this disease, if we keep in view the præcordial oppression, and the dyspnoea vanishing with the first full inspiration. Dr. Strahl would wish to change the name of the disease, and, instead of *incubus*, proposes *Inflatio ventriculi œsophagea* for the chronic form, and *Inflatio ventriculi nocturna* for an accidental attack. Dr. Strahl then shows, at considerable length, that atmospheric air may circulate in the blood-vessels; and observes, "that if we are convinced that the development of air in the body is not a pathological but a physiological process, and that it is not its formation, but its retention, which is injurious, we shall be naturally led to consider the restoration of the skin to the full use of its functions as the most pressing indication, which has not yet been done with reference to the cure of flatulence." (P. 137.)

Prognosis. The older writers thought night-mare a dangerous disease, while of late it has been commonly supposed not to be a disease at all, but barely a morbid symptom, and at most the effect of something which, though injurious, was but transient and unimportant; and it was imagined that it could not do any considerable injury to the system. But that night-mare is not an unimportant disease, can be testified by all who have suffered under it. A disease which returns every night, and robs several hours of their destined sleep; a disease which calls forth phenomena which accompany only

the most serious disturbances of the frame, and which, by the violence of its attacks, produces and keeps up in its martyrs the fear of instant death; a disease, in short, which is complicated with so many serious anomalies of the animal functions, (or, to speak more correctly, which arises from them,) can certainly not be looked upon as unimportant.

Treatment. The treatment of night-mare formerly rested on no fixed principles, but was as various as the theories of the nature of the disease. The followers of the humoral pathology, who attributed incubus to a thick mucus, expected success from its removal; and it is impossible (says Dr. Strahl) to refrain from smiling at the army of remedies with which they went out to battle against the night-mare. Thus, for example, Huldenreich proposes Præparantia, incidentia, abstergentia, recludentia, purgantia universalia et partialia, discutientia, educentia, tandem viscera interna alterantia, roborantia. (*Huldenreich, Dissert. de Incub.* 1658, p. 24.)

Wolfgang Wedel, who, as well as many other old writers, supposed plethora to be the proximate cause, recommends bleeding, cupping, setons, issues, and other depletory remedies.

Forestus, and his followers, call a whole host of nervine remedies into the lists. "Dum cubitum itur, sumatur bolus ex conservâ flor. ror. mar. lavendulæ, menthæ, pæoniæ, aut conditæ radicis pæoniæ, aut excorticatæ." (*Forest. Obs.* 52.)

The indications of cure are three:

1st. To lower the excessive sensibility of the ganglionic system;

2dly. To prevent the development of flatulence;

3dly. To excite the skin to its normal degree of activity.

But, before we enter on the consideration of these points, it will be proper, says our author, to give the treatment that should be adopted during the attack itself. At a time when, from ignorance of the nature of his disease, errors in diet, and other causes had increased the violence of his nightly attacks to a frightful pitch, Dr. Strahl had gradually accumulated a little shop-full of antispasmodics by his bedside. He tried everything from castoreum to aqua melissæ, but in vain, for his attacks frequently lasted from ten at night till three in the morning, and not a single remedy was of the slightest avail, except perhaps the aqua laurocerasi, and even that was of doubtful efficacy. He at last tried a cup of chamomile tea, and, as soon as he had swallowed it, felt a slight rumbling in the region of the pylorus, while several violent eructations demonstrated that the spasm at the cardia was also resolved. His breathing became easier, a kindly relaxation

set in, and a placid sleep made our author forget his troubles. This agreeable experiment was repeated every evening, and Dr. Strahl found that he had discovered a specific against this dreadful disease. The infusion must be very weak, and drunk exceedingly hot; but hot water cannot be substituted for it. Waller, who, like our author, was for years a martyr to the disease, found equal benefit from the use of carbonic acid; and hence Dr. Strahl experienced the same effects from good bottled beer. If the chamomile tea, for any reason, cannot be administered, the next best remedy is friction of the abdomen, particularly about the region of the pylorus. Warm baths are also useful, but their temperature must not exceed 26° of Reaumur (= 90½° of Fahr.) Eating, too, is certainly beneficial, and those who go to bed with empty stomachs are most liable to attacks of night-mare.

To fulfil the first indication, *i. e.* to lower the sensibility of the ganglionic system, Dr. Strahl relies chiefly on low diet; for example, the patient's breakfast is to consist of two cups of tea, and a moderate portion of wheaten or of fine rye bread, several days old. He may eat this bread either dry, or with syrup, or with very good fresh butter. Medicines are of little or no use.

The second indication consists in curing and preventing flatulence. Dr. Strahl speaks with some approbation of a method of curing flatulence recommended by many eminent physicians from Galen onwards, namely, dry cupping; he has not, however, tried it himself. As for the long catalogue of carminatives, he thinks them beneficial in slight cases, but useless, or even injurious, in severe ones. He then proceeds to give a list of foods and drinks to be abstained from; among these he reckons "milk, buttermilk, and whey, which are extremely flatulent to persons not accustomed to their use; though they are not so to those who drink them daily, and work very hard when using them, as country people do. It was therefore a rule laid down long ago by Frederic Hoffmann, that consumptive patients can use a milk diet with advantage only when their digestive organs are in good condition, and that what is called a *whey-course* is very injurious, when prescribed for weakly townspeople, or hypochondriacs, or persons inclined to suffer from acidity or flatulence." (P. 209.)

To prevent flatulence, moreover, the bowels must be kept open, and nothing answers this purpose so well as aloes, or the mildest enemata.

The third indication is to excite the skin to a healthy degree of activity. This is to be effected by wearing a flannel shirt, by friction, and by bathing. Dr. Strahl enters at some

length into the details of this last subject, but we shall not follow him, as most of our readers must be familiar with them. He defines a hot bath to be one between 30° and 40° of Reaumur, *i. e.* between 99½° and 122° of Fahrenheit! It seems that Monier, a French physician, once boiled himself for eight minutes, in a bath at 122° Fahr. and lost a pound and a half weight by the experiment. (P. 222.)

We must now conclude this faint sketch of Dr. Strahl's very elaborate work, which certainly does great credit both to his abilities and his industry. We trust, however, that he will excuse us for expressing our surprise at the strange guise in which his quotations from foreign languages appear; a surprise which is increased by the fact that the book is printed at Berlin.

Consumption Curable; and the Manner in which Nature as well as Remedial Art operates in effecting a Healing Process in Cases of Consumption, &c. By FRANCIS HOPKINS RAMADGE, M.D., F.L.S., Fellow of the Royal College of Physicians.—London, 1834. 8vo. pp. 168; four Plates.

SOME well-meaning but mistaken persons have accused us of a bias in favour of the Fellows of the College of Physicians, and have thought that, in the debates which now convulse the medical republic, we have advocated with too much warmth the cause of those grasping monopolists, several of whom have actually seized upon places worth twenty pounds sterling per annum! Now, we plead not guilty of a bias, but guilty of a predilection. We have always been pleased with the favourite phrase of our old writers, “a grave and *learned* doctor of physic,” and we have thought that those who have been hurried away from their books at fifteen or sixteen, and placed behind desks or counters to pick up knowledge by stealth or accident, were not quite so likely to maintain the ancient character of the profession, as those who have had unlimited opportunities of study, and have drunk deep from those fountains of learning which, for ages, all that is most honourable and most revered in England has combined to foster. This theory we were prepared, and are still prepared, to uphold by an appeal to facts; yet we fear that our adversaries (if critics so good-humoured as ourselves can have any,) will poke “Consumption Curable” in our faces, and will say “Here is a Fellow for you!” just as when the philosopher of old had unluckily defined man to be a biped without feathers, somebody thrust a cock stripped of his feathers into his school, and cried out “Here is Plato's man

for you!" We trust, therefore, that we shall receive due credit for our candour in confessing that the work before us is of inconceivable poorness and flatness, and stands unrivalled for pompous imbecility and boastful nonsense. If we were thick-and-thin partisans of the Fellows, (which we are not,) our sole consolation would consist in the reflection, that, since the foundation of the College, there has been but one Ramadge; and that copies of this book, the few copies that are preserved, (for books of this kind have a wonderful tendency to grow scarce,) might be put up in glass bottles, as far greater curiosities than a scirrhus heart, or an acephalous foetus.

We are afraid that, when we tell our readers how Dr. Ramadge proposes to cure phthisis, they will imagine that we are indulging in an agreeable embellishment, but we assure them that we never were more serious in our lives. The first *methodus medendi*, then, consists in producing an emphysematous state of the lungs by inhalation; and the second way is, to make the patient catch cold, as a catarrh is not only an immediate benefit, but is capable of effecting a lasting cure. And now for a few extracts, to justify us in our readers' eyes.

"There are but two modes by which we can hope to cure this disease; the one is by rendering it chronic, and the other by artificially enlarging those portions of the lungs which are pervious to air. In the first, we endeavour to effect an absence of constitutional disorder; but, after this change is effected, there may still remain for an indefinite period one or more cavities uncatarrised, with lining membrane, partly semi-cartilaginous, or of such condensed and insensible structure as to be productive of little inconvenience, if we except occasional cough, and some hæmorrhage occurring at long intervals, and rarely to a great extent. In the second there is produced what is invariably seen when nature or art has effected a cure, an enlargement of the vesicular structure of the lungs, and subsequently a gradual healing of the tuberculous excavations." (P. 88.)

"*Inhalation.* I am well aware that many objections may be started to this practice from prejudice, or inefficient observation. Strange to say, the principle, on which this mode of treatment operates beneficially, appears to me quite unknown to medical men. It is supposed that the inspiration of medicated vapours has in many instances proved useful by allaying cough, and by producing some healthy and unexplained change in diseased parts of the lungs, as well as on such adventitious surfaces as are formed after the softening, or discharge, of tuberculous matter. The permanent advantages which inhaling is capable of affording, I am convinced, have been very rarely witnessed by the generality of practitioners.

First, because the period, during which persons are directed to inhale, is generally too short to produce either a catarrhal, or an enlarged state of the lungs, one of which conditions is absolutely necessary in order to suspend, or cure consumption: and, secondly, the apparatuses employed for this purpose are not constructed scientifically, so as to facilitate those physical changes, which it is desirable the chest should undergo." (P. 97.)

"Neither perfect recovery, nor indeed exemption from the danger of relapse into a consumptive state, is found to occur, except in very rare instances, unless the pulmonary organs become naturally or artificially voluminous; which does not unfrequently happens by the supervention of some catarrhal state of the larynx, trachea, or bronchial tubes. It is a most fortunate circumstance for some affection of this kind to occur early, as it never fails permanently to arrest this most fatal disorder. When the lower lobes of the lungs are entirely free from tuberculous matter, (which is often indisputably the case for a considerable period, unless there be strong hereditary predisposition;) and though there exist at the same time cavities in the superior part of one or both lungs, clearly indicated by perfect pectoriloquism, there is almost a never failing hope of recovery to be entertained, provided an emphysematous sound can be heard.

"In fact, I never knew a consumptive person who did not lose all his formidable symptoms and regain health, when an emphysematous, or a semi-asthmatic change had early taken place. And likewise, I never knew an individual to become consumptive who was a subject of chronic catarrh, or any species of asthma. It is from long consideration of these facts, that I interfere but little with any catarrhal inflammation, which may show itself in the midst of consumptive symptoms, for I well know that it will gradually supersede all these." (P. 100.)

"*Climate.* It has been seen from the preceding pages how much I am at variance with the common opinions entertained of phthisis, and to none am I more diametrically opposed than to those which respect climate. So far from sending a consumptive patient to the south of France or Italy, I should, if change be requisite, deem the climate of St. Petersburg a thousand times more beneficial. In the latter case he has a chance of contracting catarrh, and of thus staying consumption; in the former, any catarrhal state which might exist would assuredly be fatally removed. My experience on this point is full and explicit; and I could substantiate it, were it requisite, at the close of a treatise, the scope of which has been to prove the true nature of this little understood malady, by numerous cases. So decided am I on this head, that I never admit into the Infirmary a phthisical patient with recent catarrh, because its wards are heated in winter-time so as to resemble a moderate summer temperature. In uniformity with these opinions, I feel no anxiety respecting consumptive patients being

kept scrupulously withindoors. Whenever the weather permits, they should be allowed to take an airing daily; but should not be suffered to remain so long as to be sensible of chilliness or cold." (P. 131.)

There is an appendix of thirteen cases; but, though we can afford room for one only, we will regale our readers with the titles of all, as they are pleasant enough in their way.

1. Supposed consumption cured by paracentesis.
2. Consumption cured by paracentesis. [The patient died, however.]
3. Consumption, in its very advanced stage, singularly arrested. [The patient died, in two months, of pleurisy.]
4. Pulmonary excavation discharging its contents by an opening made in the right side of the neck. [Patient died.]
5. Consumption cured by paracentesis.
6. Consumption cured by suddenly supervening empysema.
7. Consumption cured by neglect.

"I will venture one observation on this case, which, although it may appear harsh, regard for truth and the advancement of medical science compel me to make, namely, that had this person when reduced to a phthisical state recurred to medical advice, the probability is, the bronchial affection, which was his safeguard, would, as is but too frequently the practice, have been interfered with, its value being unknown to the profession, and his life consequently shortened by many years." (P. 156.)

8. Consumption spontaneously cured.
9. Remarkable influence of the protective effect of bronchial affection.
10. Complication of disease ending in phthisis.
11. The protecting influence of catarrh, supervening on consumption, exemplified.
12. Consumption cured by exposure to cold, and want of faith in medicine.

"Mr. D—, aged twenty-four, through irregular habits, had so materially impaired his constitution, as to fall in consequence into a decline. He of course availed himself of the benefit of medical advice, which produced no very visible amelioration of his state of health. Being naturally of active habits, he grew impatient of the confinement to which he was subjected, and, tempted by the return of spring, he suddenly deserted his heated apartment, and determined, since he concluded he must die, to die in the manner most agreeable to himself. Accordingly, he betook himself to his favorite sport of fishing. This was in the month of March, a period at which easterly winds are most prevalent. The worst consequence of this apparently rash exposure was, that, after a time, he caught cold, which, as it would appear, was confined to the trachea. His

respiration was sensibly affected, and he laboured under a distressing fulness of the chest. He continued subject to this affection, with an apparent increase of the violence of his disorder; but he still rejected all care and medicine, and persevered in going out. After some period he began to exhibit signs of amendment: he gradually lost his emaciated appearance, acquired flesh and bodily vigor; but was much annoyed by wheezing of the chest, and loud rattle in his throat. He had remained in this state for some months when he applied to me. On examination of his chest, and hearing a detail of his complaints, not only from himself, but from the gentleman under whose care he had previously been, I at once perceived that he was indebted for his recovery from consumption to this catarrhal state of the trachea. I may here observe, that recoveries of this kind are more frequent among the lower than the other classes of the community, owing, doubtless, to what may at first appear a misfortune, but is, to the consumptive patient, in numerous instances, a blessing,—exposure to cold!" (P. 164.)

13. Case of consumption relieved by inhalation, and detailed by the patient himself.

"Ohe jam satis est!" our readers will exclaim. By no means; we have a titbit in store for you: it is not about physic, but about law; Dr. Ramadge, you know, is fortunate in both.

"It has been my misfortune to witness, in the course of my practice, but too many afflicting instances of the maladies engendered 'by a mind diseased.' Well has the poet of Nature remarked this, amongst his aggregate of human ills, when he mentions 'the law's delay,' than which I know not a greater destroyer of peace of mind, and with it of the body's health. We are accustomed to look back with horror on the proceedings recorded by historians as having taken place in that iniquitous court, which went under the name of the Star Chamber. How then, judging by analogy, will our posterity execrate the records left them of the practice of the Court of Chancery! They will there read a piteous tale of justice withheld, of hope, the brightest boon of heaven, extended and protracted, until, to look forward, is to exclaim, with *Lear*, 'Oh! that way madness lies!' The ghastly train of diseases, consumption, cancer, and other fell destroyers of the human race, which I have seen brought on the wretched victims of the procrastination, until recently the characteristic of this court, leads me, in common with the general voice, to reflect with gratitude on the change that has been effected by the wise energy of one master-spirit. Had the reforms introduced by him been adopted even a few years sooner, how many a fair fabric of human happiness would have been spared that now lies dismantled and overthrown!" (P. 86.)

It is needless to repeat our opinion of this work. The most doubting will cease for a time to hesitate; professed panegy-

rists will be unable to praise; and Dr. Ramadge's work will at least have the merit, if it has no other one, of making critics unanimous.

The Principles of Diagnosis. By MARSHALL HALL, M.D., F.R.S.
Two Vols. in One.—London, 1834. 8vo. pp. 426.

THE self-evident importance of correct diagnosis to the successful treatment of disease renders every attempt at its improvement laudable; but when these attempts, although leaving much to be desired, still achieve nearly all that is possible, there is no praise to which their undertaker is not entitled. In this position we conceive Dr. Marshall Hall has placed himself. Science and humanity are equally his debtors: and long may he enjoy their rewards! This is not unmerited eulogy; and we know that he is superior to the affectation of disclaiming what it has been the labour of his life to deserve.

“One of the sources of diagnosis enumerated constitutes a department of knowledge which may be termed *new*: it is that of the effect of remedies, and especially of bloodletting, as a diagnostic of diseases, and as a criterion of the general powers of the system. In cases in which it is doubtful whether the pain, or other local affection, be the effect of inflammation or of irritation, the question is immediately determined by placing the patient upright, and bleeding to incipient syncope: in inflammation much blood flows, in irritation very little. The violence of the disease, the powers of the system, and the due measure of the remedy, are determined at the same time. *There is, in my opinion, no single fact in physic of equal importance and value in the diagnosis of acute diseases, and the use of an important remedy.*” (P. 3.)

Now, as a general truth, this proposition must meet with universal assent; but the exceptions to it are so striking, that, next in importance to admitting the fact, is insisting upon its occasional fallibility. Every one, and Dr. Marshall Hall especially, must have seen the mischiefs resulting from injudicious depletion; that treatment having been persisted in, in virtue of the apparent impunity with which it was sustained. It will not be contended that bloodletting is always appropriate in erysipelas: indeed, some Brunonians, who are not therefore bad practitioners, never employ it; and, on the contrary, it is a measure never omitted by others. Impartial judges justly condemn both these extremes; for it hardly ever fails to afford temporary relief, and rarely furnishes the evidence of Dr. Hall's test at the time of its application. No; the evil is manifested

in precipitating the typhoid termination of severe erysipelas. Therefore, the man whose bloodletting in this disease should be regulated by the author's criterion would do incalculable mischief in treating a disease which we believe is oftener one of asthenia than the reverse. Moreover, the same remarks will, with equal justice, apply to rheumatism, in which the present relief afforded by bleeding is in a direct ratio with the permanent mischief; though nothing can exceed the readiness with which the system parts with blood in this disease. In an advanced part of the first volume he recognizes some exceptions to his own rule, but not to the extent which his large experience could supply.

"The progress of medicine as a science—might we not say, as an *abstract* science?—may be considered as greatly dependent on that of our knowledge of morbid anatomy; but the advancement of physic as a practical art is intimately linked with our knowledge of the history, symptoms, and the effects of remedies,—with the diagnosis of the disease in the living patient." (P. 3.)

A more sterling truth was never enunciated, or one more diagnostic of a philosophical physician.

The old notion that sailors are less obnoxious to calculous disorders than landsmen is perpetuated here; and therefore we infer that Dr. Hall does not accept the plausible explanation that the two extremes of existence, infancy and old age, furnish the largest number of examples of stone in the bladder; and, as both these eras are without the pale of nautical life, the scarcity of the malady among seamen is in good measure accounted for.

"There is a point in the history of diseases which still requires attention, viz. what has been termed the *metastasis*, or *conversion* of diseases. This event has occurred in gout, rheumatism, erysipelas, cynanche parotideæ, some cutaneous affections, suppressed hemorrhoids, &c. But I think some of the events which accompany the dyspepsiæ have been mistaken for the *metastasis* of diseases; and some of the effects of the *treatment*, as will be noticed immediately, are very apt to be mistaken for changes or consequences of the disease." (P. 26.)

"In *inflammation of the abdomen, with severe pain*, there is a continued state of contraction of the muscles of the face, inducing an unnatural acuteness of the features; the forehead is wrinkled, and the brows knit; the nostrils are acute, drawn upwards, and moved by the alternate and irregular acts of the respiration; the wrinkles which pass from the nostrils obliquely downwards are deeply marked; the upper lip is drawn upwards,* and the under

* "See Laennec, ed. i., t. i., pp. 90, 398."

one, perhaps, downwards, exposing the teeth; the chin is often marked with dimples. This state of the features is aggravated on any increase of pain, from change of position, muscular effort, or external pressure. Indeed, in cases of abdominal affection, it is better to press on the abdomen, or beg the patient to raise the head and shoulders, and watch the *effect* on the expression of the countenance, whilst the patient's mind is occupied with some other subject, than to ask the direct question whether pressure induces pain, as is usually done; for patients naturally suppose that every *painful* part must also be *tender*, and are therefore apt to answer in the affirmative, although incorrectly," (P. 47.)

While adopting this useful suggestion, we may also remember that a great difference in the effect is produced by the amount of pressure, severity of pain not being always in proportion to that amount. The muscular soreness accompanying some acute affections, sometimes rheumatic—is increased by slight superficial pressure; but if this be persisted in, and converted into a tolerably firm and continued one, the pain diminishes, thus furnishing a diagnostic of the absence of peritoneal inflammation; keeping in mind that in some varieties of erratic childbed, or "peritoneal fevers," excessive tenderness of the abdomen, indeed absolute intolerance of the slightest pressure, has been held not to depend upon inflammation. To establish this valuable fact, no one has contributed more than our author, except perhaps the late Dr. Gooch.

"The presence of morbid changes of structure affords the evidence of previous morbid actions; their absence affords the proof that such morbid actions have not existed." (Vol. i. p. 185.) Surely this last part will not be even generally assented to; for it cannot be denied, nor disproved, that structure and organs shall have been the seat of morbid actions,—ay, and the most intense and disturbing ones, without furnishing any even the slightest post-mortem evidences of their previous existence. To go no further than inflammation, may we not find an entire absence of these indications of disease, yet the patient shall incontestably have suffered their severest forms, stopping short of those structural changes, which the severity of the disease prevented by destroying life before their maturation. Disorders, serious from their intensity and duration, have had their seat in parts whose structure they have failed to disorganize: this is constantly happening, in spite of the dogma that "their absence affords the proof that such morbid actions have not existed."

The following admission is of infinite value, which is enhanced by the fact of its emanating from so high an autho-

rity as Dr. Hall, who has a strong partiality for a branch to which he here does entire justice :

“ I would observe, however, that the mere student of morbid anatomy is not a good practical physician. There is so much to be considered in the condition of the general system, in the sympathies with the organ, or organs, principally affected, in the effects of remedies, &c. that he who has an eye to the mere disease, the morbid change of structure, alone, is not in possession of the knowledge required to treat the patient.” (P. 185.)

Very germane to this matter, but often, very often, forgotten over the victim of the disease, is the following :

“ It seems probable, indeed, that the solids, the fluids, and the nervous system, are variously but simultaneously involved in all diseases. The morbid change is seldom confined to a part, an organ. Certain morbid appearances, and certain associations of morbid appearances, are met with in fevers, in the eruptive diseases, in inflammations, in scrofulous or tuberculous affections, in dropsies, in hæmorrhages, &c. to which my attention has been forcibly drawn, and to which I wish to draw the attention of the profession. Such forms and such associations of morbid changes constitute the disease. Each of such forms is peculiar. The same change of structure observed in different diseases, according to our usual phraseology, is not, in fact, the same. The inflammatory affections of the skin, which occur in scarlatina, in rubeola, in variola, are not the same. In like manner morbid changes of structure, observed in febrile, inflammatory, and other diseases, although designated by the same term, are not in truth the same.” (P. 6. vol. ii.)

The following observations, too, should never be lost sight of for a moment :

“ The investigation into the state of the ‘ *constitution* ’ of the patient, is one which has been greatly neglected, and which must be studied anew.’ It is to this department of knowledge that Celsus alludes in the following paragraph : ‘ Ob quæ conjicio, eum qui propria non novit, communia tantum intueri debere; eumque qui propria nosse potest, ea quidem non oportere negligere, sed his quoque insistere. Ideoque, cum par scientia sit, utiliorem tamen medicum esse amicum, quam extraneum.’ It is to this department of medical knowledge that I would particularly call the renewed attention of the profession. Every physician feels how much easier it is to prescribe for a patient for whom he has frequently prescribed before, than for a stranger. The habit of such a patient in regard to the kind and severity of the disease, and in regard to the power of supporting important remedies, is familiarly known to him. There is in every one a certain idiosyncrasy, to which it is highly important to attend with scrupulous care. This notion is become antiquated of late; it is nevertheless founded in truth, and will meet

with acceptance, as an old friend, by all practical physicians." (P. 9. vol. ii.)

"It has been my wish, in the first place, as much as possible, to arrange and bring before the young physician every case which can require his attention in actual practice." (P. 19. vol. ii.)

This, with all deference to the author, we deem unattainable: an accurate calculation is impossible, because many causes are constantly acting as disturbing ones, to prevent any attempt at a nosology of the majority of deviations from healthy function; and these deviations are the diseases on account of which the practitioner is consulted, perhaps, seven times out of ten. He expresses his desire to avoid "surcharging these sketches with the names and descriptions of diseases, which are more objects of curiosity and over-refinement than of practical utility.

"I must be excused for still thinking the terms fever, inflammation, rheumatism, scirrhus, &c., useful and practical designations of disease, just as rubeola, erysipelas, and gout are so." (P. 19, vol. ii.)

However laudable it may be, and we admit that it is so, to supersede arbitrary terms by scientific and descriptive designations, it is to be feared that terms having the force or qualities of definitions, will ever be things to be desired in the study and practice of medicine. Almost equally difficult appears to be what Dr. Hall calls a *diagnostic arrangement* of diseases: a severe critic would encounter but slight difficulty in shewing its fallacy.

We do not think that the reasoning is sound which concludes that, because fifteen hundred varieties of the rose have been identified, we may therefore expect an approximation to similar success in the diagnostic arrangement of diseases. Comparison and contrast are the elements of the botanical experiment, and proximity of the objects furnishes a ready means of distinguishing identity or difference: far otherwise in disorders, where the amount of resemblance or disparity is ever varying,—where the symptoms cannot be sensibly or tangibly appreciated, as in the case where matter is the thing judged of.

It is not to be expected that fever, the theme of so many pens, should fail to afford Dr. Hall an opportunity of evincing a familiarity with this engrossing and important subject: this he does, and in a way that makes us regret he did not give a large division of his work to the subject.

From the notes of interrogation after the mention of malaria and contagion as the causes of typhus, we are to infer

that Dr. Hall doubts those sources being true ones of this fever; a scepticism which he will share with but few, and which the appeal to fact—with him a favourite one, will certainly not fortify. He also appears to regard it always as an idiopathic disease, and one not likely to be superinduced: if we correctly so understand him, we are again dissentient. He denies the inflammation and ulceration of Peyer's glands being the effect, the cause, or the complication of typhus; and affirms that they are an essential part of the disease. Perhaps this point may still be considered as doubtful; but our author's theory is certainly confirmed by the late researches of Dr. Chomel.

We are surprised that, in describing the morbid anatomy of typhus, but slight, if any, notice is taken of the "sticky varnish," well described by Dr. Armstrong as almost invariably lining the bronchial passages; the existence of which may in part account for the condition of the blood, as it undergoes less perfectly the pulmonary changes, in consequence of this peculiar mucous lining preventing the perfect access of the atmosphere.

Admitting the propriety of Dr. Hall's two great divisions of fevers into "continued" and "periodic," his assigning the "remittent forms" a place in the latter is more questionable. In intermittent fevers there is an interval between the recurrence of the symptoms of the disease: in remittent fever there is no interval, but, in lieu of it, a continuity of the disease and symptoms, with a periodic exacerbation of the latter. The diagnostic of remittent fever, the absence of the periodic cold stage, is not alluded to; nor is the state of the pupil dwelt upon as an index to the condition of the brain in fever, independent of effusion.

The chapter on the diagnosis of Irritation, Exhaustion, Delirium Tremens, and Erethismus Mercurialis, is invaluable.

It would be unjust to Dr. M. Hall to withhold the highest praise from his eminently successful labours in a department of his art which he is well known to be practically familiar with, and, consequently, well fitted to write upon. His unwearied zeal in the pursuit of knowledge forbids us to despair that, as he must necessarily advance in the attainment of his favourite objects, we shall at a future period enjoy the fruits of labours even still more useful to mankind.

Abhandlungen aus dem Gebiete der Practischen Medicin und Chirurgie. Von Dr. ADOLPH. LEOP. RICHTER, &c.—Berlin, 1832.

Dissertations on Points of Practical Medicine and Surgery.
By Dr. A. L. RICHTER. 8vo. pp. 261.

THIS is an extremely pleasant and instructive volume, consisting of several detached medical and surgical essays, exhibiting a view of what has been previously written on the subjects of which they treat, and interspersed with interesting cases and remarks, which communicate to the whole an air of originality. Papers of this kind, combining literary history with the statement of new facts, are particularly entertaining and useful, and require extensive information, together with considerable talent and judgment, in their author. The work before us evinces all these: it is not, however, altogether free from a fault which pervades the entire medical literature of Germany—that of too great diffuseness, and a disposition to dwell on trifling circumstances. We cannot here refrain from expressing our regret at this unfortunate peculiarity in the German writers; nor is it possible to suppress a feeling of chagrin, when, as frequently happens, after the toilsome enucleation of an author's meaning,—cum sudor ad imos manaret talos, we find that we have waded through a dense volume to come at something which might have been amply set forth in half a dozen pages.

We can assure our Teutonic brethren, that, if they would give themselves only about a twentieth part of the trouble they do, theirs would be the finest medical literature on earth. Their information is immense, their correctness exemplary: all they lack is condensation, which, however, is a most essential requisite for scientific excellence.

We by no means wish to insinuate that these remarks are particularly applicable to Dr. Richter's book, which, if it be not exempt from the charge of unnecessary diffuseness, is, on the whole, less obnoxious to it than most others in the same language: some of the cases, however, are narrated at so tedious a length, that we have been unable to present them to our readers, though desirous of doing so, from their really interesting character.

The subjects treated of in this volume are—

1. The use of gypsum in the treatment of fractures of the leg.
2. The preternatural formation of bone in muscles.
3. The curative process of nature in intussusception.

4. Chronic rheumatic inflammation of the synovial membrane of the elbow-joint.
5. The interstitial absorption of bones.
6. Four interesting cases of disease.
7. The production of modified and spurious small-pox, and of cow-pox, from the contagion of genuine small-pox.
8. Gangrenous erosion of the face in children.

In the first article our author alludes to several recent contrivances for the treatment of fractured legs; as that of Förster, who, after the bones are replaced, lays the leg, with the foot extended, in a box of sufficient length, which is half filled with sand moistened with water. So much sand is then poured on each side of the leg as to surround it to the edges of the shin, which is left free. In the lower end of this box are two little doors, to admit of the extension of the foot. Instead of the footboard Kluge has substituted a valve, perforated with holes for the transmission of the extending cords. The sand, kept constantly moist, forms an equal and comfortable support for the limb without exerting undue pressure; it affords a ready access to the injured part, and has the advantage of being always procured without difficulty or expense. Dr. Richter states, that, although he has seen this plan successfully adopted in many cases of simple and complicated fractures of the leg in the Berlin Hospital, he does not regard it in general as the best mode of treatment: he considers it chiefly applicable to the early or inflammatory period of those cases where there is injury of the soft parts; he also thinks it a desirable means when the accident occurs in the country, and *no other can be obtained*. The latter is always a good reason for taking what one can get, and would be our only motive for using the sand, which appears to us a very slovenly and inefficient proceeding.

The contrivance of Larrey is much neater. Instead of splints, longitudinal folds of linen, soaked in ointment of styrax, are applied over the fractured part; the whole limb is then carefully surrounded with lint and compresses dipped in a glutinous fluid, prepared with wine, or camphorated vinegar, and white of egg, and the whole is retained by an eighteen-tailed bandage. (*Journal Complémentaire du Dictionnaire des Sciences Médicales*, tom. xx.)

To these we may add, a method recommended by the late Mr. Allen, of Edinburgh, who, in the treatment of these and other fractures, made use of pasteboard splints, moistened in warm water, so as to adapt them to the shape of the part, and then soaked in glue, by the hardening of which a light

but firm case is formed for the fractured limb. (*System of Pathological and Operative Surgery*, vol. ii. p. 67.)

The earliest account of the use of gypsum which Dr. Richter has met with, is in an extract from a letter of Mr. Eaton, formerly English consul at Bassorah, to Dr. Guthrie, of Petersburg, contained in the ninth volume of the *Medical Commentaries*. The practice is here mentioned as being in use among the Arabian surgeons. L. F. v. Froriep also, in his *Introduction to Roux's Parallel between English and French Surgery*, states the same practice to be prevalent among the Moors on the northern coast of Africa.

“So far as I know,” continues Dr. Richter, “a trial of this method of treatment in fractures of the leg has only been made in the hospital at Berlin in the year 1828-9, by order of the director, Professor Kluge, and under the inspection of the house physician, Dr. Keyl. This practice, of whose utility I have also had an opportunity of convincing myself, has been made the subject of an inaugural dissertation by Dr. F. W. Ferd. Rauch, entitled ‘*De gypso liquefacto ad fracturas ossium cruris curandas adhibendo*.’ Berolini, 1829. The following detail is given of the mode of proceeding. A wooden box is used, of such a length that the leg and condyles of the femur may be conveniently laid in it. This box is half filled with sand; on the sand is laid a piece of pasteboard six inches broad, and on each side of this a similar piece is stuck into the sand, so that the space thus enclosed indicates the form of the mass of gypsum about to be poured in. These pieces of pasteboard, as well as the calf of the leg, are anointed with oil, or lard, to prevent the adhesion of the gypsum. The leg is then placed, with the foot extended, in the space enclosed by the pieces of pasteboard, and the gypsum is poured quickly and without interruption around the leg till the larger half thereof is surrounded by it. (The gypsum is to be prepared for this purpose by gradually pouring a peck of gypsum into about eight quarts of water, carefully stirring the mixture.)

“In half an hour the gypsum is hardened, and the box as well as the pasteboard may be removed. A more convenient adjustment is afterwards made, by the adaptation of a box, twenty-two inches long by seven broad, whose sides can be let down and removed from the bottom. The hinder wall has also an aperture for the reception of the ham. This box may be used for either leg, and forms a receptacle in which the extended limb may have the gypsum poured around it. After the gypsum is hardened, the sides of the box may be let down, and removed along with the bottom.”

The gypsum may, according to the circumstances of the case, be applied in an unbroken mass, as above described, or in detached portions, which admit of being separately removed. Each portion of the gypsum may be made to

assume any desired shape, by using a piece of pasteboard, of the proper form, as a mould.

When the fracture is complicated with a wound, an aperture of sufficient size must, of course, be made in the covering of gypsum.

The gypsum is best applied in a continuous mass in cases of simple fracture, where we have little to apprehend from inflammation, or other local consequences. The use of separate portions is more applicable to complicated fractures.

Some more minute directions are given for the preparation and application of the gypsum, for which we must refer to the original memoir.

Dr. Richter details the case of a Captain K—, which he treated with success on the above-mentioned plan. The fracture was situated three inches above the ankle-joint, the bone was splintered, and the injury attended with much contusion, swelling, and extravasation of blood. After the inflammatory symptoms were subdued by appropriate means, the gypsum was applied in separate portions, and at the expiration of sixteen weeks the patient was able to return to his duty.

All ingenious attempts to improve the mechanical department of surgery are worthy of attention; but, after all, the treatment of a fractured leg is so very simple a matter, that it would require some ingenuity to mar it; the whole mystery being to lay the leg straight, and keep the toes from turning inward or outward, which may be admirably effected by means of common wooden splints and two or three pieces of tape.

The second paper, *on the Morbid Formation of Bone in the Muscles*, is of considerable interest.

This phenomenon, as occurring in the muscular structure of the heart and blood-vessels, has been already frequently observed and described: its occurrence in the voluntary muscles, however, has attracted less notice. The attention of our author has been chiefly directed to a disease of this nature observed among the Prussian recruits, consisting in a morbid deposition of bone in the muscles on the fore part of the shoulder, and attributed to the pressure of the musket, which induces a species of chronic inflammation, with gradual induration of the parts, terminating in the conversion of a greater or smaller portion of the muscular substance into a bony mass. We are not aware that any such affection is prevalent among our own troops; but it is to be remembered that the German muskets are very much heavier than ours, and Dr. Richter states, that all the recruits suffer more or

less from inflammation and swelling of the shoulder, till they become habituated to the exercise. In the greater number these symptoms gradually disappear, without being followed by any permanent bad consequences: every year, however, affords several examples of the disorganization alluded to, which, in our author's opinion, is favoured by friction with spirituous applications, which the men are in the habit of using with a view of allaying the inflammation, but, in reality, with an opposite effect.

“At the commencement of the disease,” says our author, “the bony tumors present themselves in the form of knots under the skin, of the size of a hazel-nut; they feel elastic and cartilaginous, are somewhat movable, and are not circumscribed, but blend imperceptibly with the surrounding inflammatory swelling. These knots afford nuclei for further morbid deposition in the contiguous parts already degenerated in their texture. The tumor increases from day to day, becomes continually harder, and, as the inflammation subsides, more circumscribed; it assumes an oval form, and is produced at its lower end into a hard cord, which is afterwards ossified, and appears like a stem in the tendon of the deltoid. In the course of from four to six weeks I have seen the bony deposition increase in this manner to the size of a goose's egg. The motion of the arm is of course impeded by this degeneration. During the inflammatory stage the patient cannot use the limb with freedom: when, however, this is past, and the hardened tumor has acquired only the magnitude of a walnut, the soldier is not prevented from the exercise of his duty, and complains of little inconvenience, unless he be ill-disposed, and wish to avail himself of his mishap as a ground of exemption from further service. If the tumor has attained a larger size, and extended itself to the coraco-brachialis and pectoralis major upward to the clavicle, the elevation of the arm, and its lateral movements, become seriously impeded.”

Tumors of this kind may be extirpated, or their resolution may be attempted by discutient applications: our author's experience is unfavourable to the former procedure. He relates the cases of two soldiers from whom he removed such tumors, under the impression that they were separate formations in the intermuscular cellular membrane. Though the wound occasioned by the operation healed readily by the first intention in both these cases, it was nearly a year before either of the men was able to handle his musket. For a long time, also, changes of the weather occasioned severe pains and feebleness of motion in the limb. An examination of the extirpated tumors sufficiently explained the cause of these evil consequences, by demonstrating that the parts removed consisted of the altered structure of the muscles themselves.

“By the extirpation of the tumor in both the above-mentioned patients,” says Dr. Richter, “I was enabled to investigate the nature of the excised mass, and to convince myself of my error in supposing it to be a parasitical growth, or osseous deposition in the cellular membrane between the muscles. The operation itself removed my first impression, and an examination of the textures of the tumors led to a different conclusion. External examination had induced me to believe them of smaller dimensions than I afterwards found them to be; for they reached even to the humerus, without however adhering to it, and their chief extension was in the direction of their depth. After extirpation, their magnitude was found to equal that of a moderate-sized hen’s egg, and their greatest circumference at their middle was from four to five inches. At both ends, but especially the lower, they were produced to a point, and their long diameter was from four to five inches. The surface was uneven, and here and there beset with hooks. The muscular fibres adhered closely to the whole, entered into the solid substance of the mass, and could be separated only with difficulty. At particular parts the surface was invested with a tendinous membrane, which seemed to be traversed by muscular fibres. When the surface was cleansed from all adherent substances, it appeared rough, and not like that of a bone. After the extirpated tumors had lain some time in spirit, they appeared smaller, and somewhat shrunk. The weight was not proportionate to the bulk, for the smaller mass weighed, after this time, ʒij. ʒi., and the larger ʒv. gr. xxx. The consistence of the two was not similar; the larger was harder, and required a saw for its division; the smaller might be divided, though with some effort, by means of a sharp knife. An examination of their substance shewed that it was not homogeneous; the foundation was of muscular substance, which exhibited itself very manifestly in their texture and colour, and in particular parts had a silvery and tendinous, or rather fibrous appearance. In the midst of these longitudinal muscular and tendinous fibres, I found a hard, bony, and porous substance much resembling pumice-stone, but harder, and which might be compared to the dense texture in the ends of long bones. No cellular structure, nor the presence of any substance resembling the marrow of the bones, could be detected in the texture of this new product.”

“The hook-shaped bodies on the surface were connected with the bony mass by a tendinous substance, and were movable.”

Experience being unfavourable to the extirpation of such tumors, our author recommends a discutient plan of treatment.

If the swelling of the shoulder be still inflammatory, the disease recent, and the induration small, leeches are to be applied, followed by cooling lotions. When the redness has disappeared, mercurial ointment is to be rubbed in, and a mercurial plaster applied during the night. If the disease be

further advanced, the inflammatory stage already passed, and the tumor free from pain, friction with mercurial ointment, and stimulating liniments, may be had recourse to from the beginning. The Ung. Hydriod. Potass. is also applicable to this stage of the disease; in which benefit is also to be derived from the continued irritation of blisters and the tartar-emetic ointment.

The success of this treatment is various: applied in the early stage, it will generally effect a complete cure. If the disease be of long standing, and the tumor have attained the size of a walnut, it may generally be diminished, though not entirely got rid of. In some cases, when the tumor is diminished to a certain point, the patient recovers the free use of his arm: in others, where the tumor is so large as to reach nearly to the coracoid process, this fortunate result is not to be hoped for, and the man becomes incapacitated for further service.

The first two papers in this volume are the most worthy of attention, as containing information in some measure new: our notice of the rest must be more cursory.

In the essay *on the Sanative Process of Nature in Introsusception*, the author gives an excellent view of the manner in which the invaginated portion of intestine is separated and cast off. A case is also introduced, in which, when the patient appeared to be at death's door, a sudden amelioration of the symptoms took place on the expulsion of a portion of the small intestine, forty inches in length; and a perfect recovery ensued.

The subject of the next paper, *Chronic Rheumatism of the Elbow-Joint*, obtruded itself most disagreeably on our author's attention, by taking up its residence in his own elbow for thirteen years. Dr. Richter enters fully and judiciously into the treatment of this affection; but, when all is said that can be said, nobody knows what chronic rheumatism is; and, what is worse, we fear nobody knows how to treat it.

Our author's remarks on the *Interstitial Absorption of Bones* are well worthy of perusal. We can here give little more than the heads of the subject.

1. Of interstitial absorption as a general disease, arising from some constitutional malady.

This may be called *tabes ossium*, an affection on which surgical writers have hitherto bestowed little attention. It is characterized by diminution of the volume, or attenuation of the substance of the bone, and occasionally by both. It occurs superficially, or in the inner texture; and, especially when local, sometimes occasions a solution of continuity. It

may present itself throughout the whole osseous system, in the bones of a single limb, or in individual bones, or portions of bones. In cases where one half of the body is crippled, the bones of that half are sometimes thus affected.

The disease is most usually confined to a single bone, and the destruction of substance may proceed from within outwards, or *vice versâ*. In pathological museums we find bones which surprise us by their extraordinary porosity, thinness, and levity. Our author has seen calvariæ so thin as to be transparent, and long bones which had scarcely any weight, and consisted only of an external lamina no thicker than paper: the outer surface was smooth, of a shining white, and not porous; the inner surface was rough, and the cancellated structure so completely obliterated, that the bone resembled a hollow tube. The prominences to which the muscles had been attached were scarcely perceptible. In the broad bones, the cancellated structure seemed to be more subject to absorption than the outer shell, and the destructive process was frequently considerably advanced before it became evident externally. This absorption taking place in the parenchyma of the bones, and thereby increasing their porosity, has been called rarefaction of the bones, osteo-porosis, or osteo-spathyrosis, of which fragility of the bones is a symptom. This consumption of the bones rarely occurs as an idiopathic affection, and, where it is the consequence of any other constitutional disease, it is, of course, accompanied with the peculiar symptoms of that disease.

The general causes of this malady enumerated by our author are—

1. Old age.
2. The great class of tabid diseases.
3. Crippling of a limb or one half of the body.
4. Syphilis, and mercurial cachexy.
5. Scrofula.
6. Gout.
7. Rheumatism.
8. Scurvy, cancer, and herpetic cachexy.
11. Of interstitial absorption as a local disease arising from pressure.

The causes which operate in its production are—

1. Aneurisms.
2. Fungous tumours of the brain, and its membranes.
3. Tumours in the nose and antrum maxillare.
4. Hydrocephalus.
5. The attrition of the act of chewing with a jaw that has lost its teeth.

6. The action of the muscles in various curvatures of the spine.

7. Contusion of the bones.

8. Some other mechanical causes.

III. Of interstitial absorption as an exertion of the sanative power of nature.

This is exemplified—

1. In the healing of fractures, where inequalities in the bone are removed by the action of the absorbents.

2. In the restoration of the medullary structure in the seat of the fracture, the cavity for containing the marrow being, for several months after the reunion of the fracture, obliterated by bony matter, which is afterwards removed by the absorbents, and the natural structure restored.

3. In the diminution of the quantity of callus.

4. In the removal of portions of bones by the saw, as in amputation; the sharp edges of the truncated bone being removed by the absorbents, the cavity filled up by new deposition, and the end of the bone brought into a rounded form.

5. In necrosis.

6. In the formation of new articular cavities in cases of unreduced dislocation.

7. In the changing of the teeth.

Of the cases which constitute the sixth paper, two afford examples of inflammation of the diaphragm; in the one instance rheumatic, in the other, consecutive on softening of the brain: these we would gladly extract, but that they are too diffuse.

The two concluding papers are excellent of their kind, affording an useful compendium of the observations and opinions of authors on two interesting subjects: since, however, they contain comparatively little original matter, we shall not protract this article by any quotations from them.

In conclusion, we beg to recommend all these tracts to the attention of those of our readers who are conversant with German: they are the production of a well-informed and judicious physician.

The Anatomy of the Human Eye. By JOHN DALRYMPLE, Assistant Surgeon to the London Ophthalmic Infirmary.— London, 1834. 8vo. pp. 294; Plates.

A GOOD monograph on the structure of the eye has for some years been a desideratum in our medical literature: the investigation of this organ constitutes a separate department of anatomy, and cannot be satisfactorily conducted within the limits of an ordinary anatomical system, or an introduction to a pathological treatise. The principal materials for such a work must necessarily be derived from the labours of preceding authors, but the task of collecting and weighing their statements and opinions is, if judiciously performed, one of considerable difficulty and great utility: the subject also still affords sufficient scope for original observation in some of its minuter details. Mr. Dalrymple has shewn great industry and judgment in the collection of his materials, and has taken nothing upon trust, but has been careful to verify or correct the statements of other anatomists by his own observation: he has also introduced several interesting descriptions and ingenious opinions of his own. We give one or two extracts merely as specimens of the work. The following is our author's account of the foramen of Soemmering.

“ In the description of the sclerotic, I had occasion to notice the lamina cribrosa, and the point where the optic nerve enters, as not being placed in the direct centre of the eye; or, in other words, not in the exact axis of vision, but being rather to the inner or nasal side of the organ. If the globe of a recent human eye be divided by a transverse section, and, whilst immersed in water, the vitreous body along with the anterior section be removed, the posterior portion of the retina will be brought into full view; which, notwithstanding the delicacy of its texture, will remain undisturbed, and fairly exhibit the lateral entrance of the nerve. From this point we at once trace a small elliptical fold, that extends transversely to the very axis of vision; where is observed in its centre a small dark spot, not perfectly round, but rather oval, like the fold in which it is placed; it is also slightly depressed, and surrounded by a yellow circumference. This spot is what Soëmmering discovered, and described as the ‘foramen et limbum luteum,’ and which, during several years, was considered peculiar to man: but Cuvier has since remarked it to prevail in some of the genus, ‘quadrumana;’ and by Dr. Knox it has subsequently been observed in the eyes of certain lizards, and in the chameleon; the last mentioned author has denied the appearance of a fold in the human eye, and treats its existence only as a post-mortem result. I however believe the fold to be essential to the formation of the dark-coloured spot described by Soëmmering.

“A contrariety of opinions has existed in reference to this point. The illustrious author of the discovery, by the very name he has applied to it, considers it as a real aperture, surrounded by a yellowish coloured circumference; while Blumenbach attributes to it an expansive and contractile power, for the purpose of regulating, under certain circumstances, the admission of rays of light. Sir C. Bell denies the existence of a real foramen, the apparent aperture being produced by the transparency of the retina at this point, while its remaining portions become uniformly opaque. Blainville, in his *Principes d'Anatomie Comparée*, though generally correct in his description of this appearance, falls, I believe, into a similar error: ‘Un petit enfoncement plus ou moins ovalaire, translucide au milieu, autour duquel se plisse un peu la rétine, qui l'on remarque dans cette membrane, en quelque distance en dehors de l'entrée du nerf optique, dans l'axe même du globe de l'œil.’ For myself, I am disposed to think that the existence of the apparent aperture in question may be explained on other grounds than that of the transparency of the central spot. I have remarked that it is not, as Soëmmering has represented it, a perfectly circular point, but that its figure is oval, corresponding in this respect with the plica, in the centre of which it is placed: this is also stated by Blainville. This fold is formed by a duplicature of the retina, or rather by the union of two minute plicæ, united at their respective extremities, and leaving a depression between them in their centre. Their extremities thus joined extend on the one side to the entrance of the optic nerve, while on the other, or temporal side, they are lost by expanding into the general surface of the retina: the extreme length of these folds is about one and a half lines, in breadth nearly one line. This appearance I have repeatedly observed in the human eye when immersed in water, as I have already described. If the subject under observation be carefully frozen, and neatly separated by a vertical section through the centre of the folds, it will be still more distinctly shewn, and exhibit the central depression, consisting of a single layer of retina only; whilst the folds, consisting of two portions of membrane doubly opaque, and standing out in relief, throw it into shade, the dark pigment behind, adding a still greater depth of colour, increases the effect of the shadow.

“This conclusion is still further sustained by the appearances exhibited by a preparation in my possession, in which, by long immersion in dilute spirit of wine, the central depression has partially unfolded, shewing the continuity of the retina between the folds as perfectly opaque as in any other portion of its surface. The yellow circumference, or ‘*limbum luteum*,’ has been also blanched by the spirit, a result, as to colour, equally produced on the grey matter of the brain by long continued immersion.

“The opinions which I have here ventured to submit to the profession are the result of dissections made six years ago, the vouchers for which I still retain in the preparations then made:

they have been confirmed by recent and continued examination of this point; and, as the inspections afforded me, on these occasions, were made under circumstances the most favorable, as regarded the recent state of the organ, I am led to speak with increased confidence of the nature of the appearances described in the preceding paragraphs." (P. 75.)

Mr. Dalrymple makes some remarks on the discovery of Dr. Jacob, who, it appears, does not understand the mystery of his own membrane: Is it wonderful, then, that others should have been slow in apprehending it? nay, that some heretically-disposed persons should have started doubts whether it were anything or nothing?

"Dr. Jacob," observes our author, "does not assert the identity of this membrane with serous tissues in general, although some confusion may arise from his likening it to the lining membrane of serous cavities. It is also evident, that the discoverer believed it to be a single membrane. From observations made on the human eye, in connexion with other experiments on the eyes of animals, I am induced to consider it as a *double reflected serous membrane.*" (P. 95.)

The following, according to Mr. Dalrymple, is the true anatomy of the membrane in question.

"At the point of entry of the optic nerve this delicate tissue first commences; it proceeds concentric with, lines, and is attached to the internal surface of the choroid, as far as the ciliary circle, and 'ora serrata;' thence doubling on itself, it is reflected upon the outer surface of the retina, to which it is loosely adherent, forming that exquisite structure first observed and described by Dr. Jacob: in this way it proceeds back to the optic nerve, where it is again continuous with the portion lining the choroid. The latter portion, or the choroidal reflection, wheresoever it comes in contact with the pigment, is stained by it, though it does not allow the colouring matter to transude. Thus, instead of its being a single layer, I think we are enabled to establish, that it is a double and reflected tissue, forming a closed sac, and presenting the peculiarities, anatomical and physiological, common to all such membranes as line serous cavities.

"Certain morbid conditions of the eye would seem to point out the existence of a serous membrane at this part, and of these the most remarkable is a peculiar form of 'gutta serena,' mentioned by Mr. Ware and others, who, in several instances after death, have observed a fluid effused between the choroid and retina. The former gentleman, by puncturing the sclerotic and choroid in some cases, gave immediate relief by removing the pressure on the retina produced by this morbid accumulation. In some rare instances the retina has been found ossified; and Meckel is of opinion, that Jacob's membrane is the seat of this affection. Ossification of

serous textures does not unfrequently occur in other parts of the body; as, for instance in the pleura costalis, in the pericardium, on the peritoneal surface of the spleen, &c. It is also sometimes observed on the arachnoid surface of the dura mater. I know of no well authenticated instance, in which the medullary matter of the brain has been converted into bone, although I believe a rare case of ossified brain has been somewhere recorded.

“A disease which in its early stage bears some resemblance to fungus in the eye, presents a confirmation of the existence of this serous tissue: hitherto these cases have been described as effusions of lymph from the internal surface of the choroid. Is it not more probable that such effusions have arisen by secretion from a serous surface?” (P. 99.)

This work is a valuable contribution to anatomical literature, and we strongly recommend it to the student of ophthalmic surgery.

Leçons de Clinique Médicale, faites à l'Hôtel-Dieu de Paris, par le Professeur A. F. CHOMEL; recueillies et publiées sous ses yeux, par J. L. GENEST, D.M.P., ancien Chef de Clinique Médicale de l'Hôtel-Dieu de Paris, &c. (Fièvre Typhoïde.) —Paris, 1834.

Lectures on Typhus Fever. By Professor CHOMEL.
8vo. pp. 548.

WE trust that, before many years have elapsed, it will be considered discreditable for a hospital physician not to have contributed his portion (or, if he cannot do that, his mite,) to the improvement of the practice of physic. The neglect of this duty might indeed be palliated, if medicine were one of the exact sciences, replete with undoubted facts, and logical deductions from them; but, as the matter stands, with doubt staring us in the face on every side, it is strange that any one should enjoy unlimited opportunities of observation and experiment for fifteen or twenty years, and yet have nothing to communicate to his less fortunate brethren. When a neighbour makes an excursion into Worcestershire, we do not wish him to write his travels; but, when the African Society send a picked man into the land of depressed crania, we expect an account of the prodigies he saw: and is not rheumatism more mysterious than Timbuctoo, and the course of fever more puzzling than the course of the Niger?

The volume before us shows that Dr. Chomel is not to be numbered among the *malingers*: indeed, the large size of this book, giving an account of only a few years' practice in a single disease, would rather seem to demonstrate that re-

viewers are necessary evils, and that they are absolutely required as middle-men between author and reader.

Before we begin our abstract, we must mention an important circumstance. We concluded, from the title-page, that Professor Chomel was the sole author of this book, and that Dr. Genest was merely his shorthand writer, or amanuensis; but, when we had toiled on to page 509, and had arrived at the second paragraph of the seventh section of the seventh article, we were startled by the following note: "Ce paragraphe et l'article suivant appartiennent entièrement à M. le Professeur Chomel." We shall continue, however, to call Dr. Chomel the author, but with a slight mental reservation. We must also premise, that what the author calls *fièvre typhoïde* we call typhus fever: but that he appropriates the term *typhus* to the typhus gravior, or jail fever, exclusively.

Professor Chomel divides typhus fever into three stages, each of which lasts about a week.

Symptoms of the First Stage. The most usual symptoms at this period of the disease are headach, which comes on at the very commencement, and appears in almost every case; prostration of strength and stupor; diarrhœa, meteorism, and sensibility of the abdomen, especially in the right iliac region; a gurgling noise on pressure of the lower half of the abdomen; epistaxis; and, lastly, the eruption generally called typhoid eruption, which, however, scarcely belongs to this stage. If the patient should be able to sleep, his short repose is accompanied by painful dreams, which leave a lasting impression, and are confounded with his waking state, so that he thinks he has not been asleep at all: this state is called by pathologists *coma vigil*. The headach is very intense for the first week, but almost always yields at the end of this period, and sometimes sooner, to the remedies employed; but it generally lasts longer if nothing has been done. Our author does not think the colour of the tongue important as a diagnostic mark, but insists strongly on the almost constant presence of diarrhœa: some patients have one, and others fifteen or twenty liquid stools in twenty-four hours, but the most common number is from four to eight. Out of fifty-four cases in which the typhoid eruption was observed, there were but two in which it appeared during the first stage. It is very unusual for patients to die during this period. Among forty-two deaths from typhus fever in the clinical ward, but one occurred at the end of the first stage.

Symptoms of the Second Stage. It is generally about the seventh or ninth day from the first attack that the eruption

appears which is peculiar to typhus fever, consisting of small rose-coloured spots, which disappear on pressure, from half a line to two lines in diameter, round in shape, and hardly, if at all, raised above the skin: they are scattered over the abdomen, and sometimes over the chest, and are rarely found on the thighs, arms, or forearms. These small spots are more easily distinguished in proportion to the whiteness of the skin, and are sometimes made out with difficulty in dark-coloured persons. Their number cannot be determined, because they are not all equally visible; but, in order to characterize a typhoid affection, there must be at least fifteen or twenty: if there are but two or three, nothing can be inferred from their presence. The importance of these lenticular spots has been denied, and it has been asserted that they are produced by the action of cataplasms, baths, and fomentations on the skin of the abdomen. This is obviously an incorrect explanation; for the poor rarely employ these remedies, and yet, out of seventy patients, twenty-nine had this eruption when admitted; and, moreover, it often appeared on patients in the hospital when the fomentations, &c. had not been used.

These lenticular rose-coloured spots can easily be distinguished from petechiæ and flea-bites, because in the latter kinds there is an extravasation of blood on the surface of the skin, and their colour, instead of being diminished by pressure, becomes apparently more vivid by the diminution of colour in the surrounding skin. In the typhoid spots, on the contrary, the redness disappears just as it does in erysipelas, where there is evidently congestion of blood, and reappears when the pressure ceases.

In this stage, too, occur the small vesicles called *sudamina*; ulcerations on the surface of the body, and an almost total loss of the contractile power of the muscles. This debility of the muscles sometimes extends to those which are employed in respiration, immediately endangering the life of the patient. The diarrhœa still continues, and sometimes there is hemorrhage from the intestines. The meteorism in some cases is considerably augmented, and reaches the degree of intensity to which authors have given the name of tympanitis. The abdominal pains, which are occasionally rather sharp during the first stage, disappear in the second, excepting in mild cases, where the patient preserves his senses and intellectual faculties unimpaired. Some patients die during the second stage, *i. e.* from the eighth to the fifteenth day. Of forty-two deaths in the clinical ward, nine

occurred in this stage; that is to say, during the most acute stage of the disease.

Symptoms of the Third Stage. If the case is about to terminate in recovery, the more serious symptoms diminish in intensity. If the patient gives a quicker answer to questions, and his eyes are voluntarily turned towards the person who speaks, this first look of the patient, this expression of his physiognomy, showing that he is beginning to awake from the stupor, in which he was unconscious of all around him, is a certain sign of amendment. In other cases the coma becomes a quiet sleep, on awaking from which the patient has recovered a part of his consciousness. In the greater number of patients their movements are easier, and the difficulty of swallowing is diminished; and, though debility is still present, the patient can move himself in a way that he could not have done two or three days before. The mouth and tongue become moist; the meteorism diminishes; and the stools become yellower, more solid, and less fetid.

In unfavourable cases the stupor increases, and the alteration in the expression of the patient's face becomes more obvious; the mouth becomes drier, or, if it is moistened, it is only with the secretion of a mucous liquid, of a grey and gluey appearance, with sanious striæ and a fetid smell. Sometimes it is black or opaque, and at others has the colour of pus. The respiration becomes more and more oppressed and stertorous; and in some cases, during the last days, a crepitus can be perceived, especially at the base and posterior part of the lungs, which is occasionally succeeded by an entire absence of the respiratory murmur.

Sometimes, too, a sudden and fatal termination of the case is produced by perforation of the coats of the intestines. In fifty-five fatal cases of typhus fever, M. Louis found intestinal perforation to have taken place eight times; but, in forty-eight fatal cases at the Hôtel Dieu, it occurred only twice.

Thirty cases were bled, and there was a firm crassamentum twenty-six times, contrary to the theory of those authors who maintain that, in serious cases of fever, the blood has always lost some of its consistence.

Post-mortem Appearances. We shall not enter into the minutiae with which Professor Chomel has filled more than 240 pages, but content ourselves with two or three of the more prominent points. When a patient dies during the earlier stages of the disease, the intestinal glands (Brunner's and Peyer's) are sometimes found merely swelled, and of a deeper colour than the surrounding parts, but not ulcerated;

but, on the ninth or tenth day of the disease, the mucous membrane covering the *plaques gaufrés* begins to ulcerate. M. Louis, too, mentions but two cases in which he found the patches without ulceration, and there the patients had died on the eighth day of the disease. After the eighth day, he seems always to have met with ulcerated patches. When the patient dies at an advanced stage of the disease, Peyer's glands have altogether disappeared, and left nothing but ulcers to mark their place. When death takes place six weeks or two months after the first attack, the ulcers in the intestines are found to be partly healed.

These lesions are always or nearly always found, and form an essential part of typhus fever; but there are others which may be called accidental, such as redness, softening, or thickening of the mucous membrane of the stomach; enlargement of the spleen; and *ramollissement* of the liver. In almost every case the spleen is enlarged, and is frequently two, three, or even four times its natural size. The heart is often softened, and sometimes to such a degree that its muscular substance breaks down under the fingers. Our author says, that morbid appearances are rarely found in the brain, yet he gives the following table of the state of that organ in thirty-eight cases:

- Injection of the membranes in 4 cases;
- Œdema of the membranes in 7 cases;
- General but slight *ramollissement* in 6 cases;
- Effusion of serum in the ventricles, varying from a teaspoonful to a tablespoonful, in 12 cases;
- Gritty state of the cerebral substance in 5 cases;
- Anormal density in 2 cases;
- Normal state in 15 cases.

Causes. The remote causes are unknown; but among the predisposing ones may be numbered youth, and recent residence in a great city. In 117 cases, where the age was accurately known,

	8	were from	15 to 18	years old;
25	—	18 to 20	—	
36	—	20 to 25	—	
30	—	25 to 30	—	
9	—	30 to 35	—	
3	—	35 to 40	—	
5	—	40 to 50	—	
1	was	52.		

If we add to this table the results obtained by M. Louis, and other observers, we shall find that the disease rarely occurs in persons above forty years of age, and that perhaps there

is not a case on record where the patient was above fifty-five.

The majority of typhus patients admitted into the hospitals have lived but a short time at Paris, as will appear from the following table of ninety-two cases, in which this point was ascertained with precision:

5	—	had been in Paris less than 1 month;
10	—	from 1 to 3 months;
9	—	from 3 to 6 months;
21	—	from 6 months to 1 year;
19	—	from 1 to 2 years;
15	—	from 2 to 6 years;
11	—	more than 7 years;
2 were natives of Paris.		

Hence it appears, that sixty-four out of ninety-two, that is to say, more than two thirds, had been in Paris less than two years.

The puerperal state has likewise been considered a predisposing cause; but, so far is this from being the case, that typhus fever seems never to follow parturition. It must be recollected, that the anatomical characteristic of typhus is the lesion of the isolated or congregated follicles of the intestines, and of the mesenteric ganglia. Now, in 220 dissections performed by M. Tonnellé, at the Maternité, during the epidemic of 1829, among forty-four collected by Dr. Robert Lee, and a great number more reported in various excellent theses maintained at Paris for several years past, we have not found a single one, says Professor Chomel, in which the change in the glands of Brunner and Peyer, that we have described, is mentioned as having been found. Moreover, in fifty post-mortem examinations after typhus fever, published by M. Louis, and forty-four that took place at the Hôtel Dieu, there is not one case where the disease had followed delivery.

The section in which our author discusses the question whether typhus is contagious or not, is very sensibly written; but he concludes, as impartial physicians must do in the present state of the evidence, by declaring the point unsettled. It seems clear enough, however, that the vast quantity of miasmata generated in fever hospitals is sufficient to spread the disease; and hence it may be inferred, (if we may be allowed a mathematical mode of reasoning,) that a single case is capable of doing so likewise, but in an infinitely small degree.

Professor Chomel now gives a separate account of the various forms of typhus fever. There are five species; the inflam-

matory, the bilious, the mucous, the nervous, and the adynamic. We shall content ourselves, however, with giving one of his cases; it belongs to the first, or inflammatory form.

Twenty-seventh Case. Qurtrechy, a worker in ebony, aged twenty-two, living in Paris for the last four months, was attacked on the 21st of January, without any obvious cause, with want of appetite, weakness, and headach. He was obliged to keep his bed, and suffered from want of sleep, a slight cough, pain in his abdomen, and fever, with considerable heat during the night, and a sensation of cold during the day. The patient reported that he had vomited green and bitter matter, and had kept himself on low diet; but no other treatment had been adopted when he entered the St. Lazarus ward, No. 27, on the 25th of January, 1832.

On the sixth day of the disease, there was debility, with a difficulty of sitting upright. The patient had come to the Hôtel Dieu supported by two companions. His consciousness was perfect; his tongue moist, and whitish; the other symptoms were, thirst; slight pain on pressure of the epigastrium; meteorism; one liquid stool; an occasional cough; a weak and transient *râle sibilant* on both sides; the pulse full, and of moderate frequency; the skin moist; and the patient said that he had perspired a good deal that morning. The prescriptions were VS. ad \bar{z} xij., a solution of syrup of gum, with twelve grains of chloride of soda; whey; a chloruretted enema, and chloruretted lotions.

Seventh day. The blood taken yesterday is not buffed, and is rather diffluent; the weakness continues, but the headach is less. Yesterday evening there was slight epistaxis; there is no sign of the typhoid eruption; the patient has had one liquid stool; the state of the abdomen is the same.

Eighth day. The eyes are still brilliant, and the skin hot; the pulse has almost lost its frequency; the weakness is still considerable; there has been one loose stool during the last twenty-four hours.

On the following days the patient continued to get better, but very slowly. Although no one of the local symptoms was intense, convalescence did not begin till the seventeenth day; and at an advanced period the patient had a very slight attack of ague, which disappeared under the use of an infusion of cinchona. Some days afterwards he complained of considerable pain in the region of the left kidney, which yielded to the application of ten leeches. He went out after having remained in the hospital six weeks. (P. 348.)

We pass over our author's observations on the diagnosis of typhus fever, partly because we think it is a disease which can rarely be confounded with any other one, and partly because there is nothing very new in his remarks.

Prognosis. There are few diseases in which the deaths are so numerous in proportion to the number of patients. Out of 147 cases of typhus admitted into the clinical wards of

the Hôtel Dieu, from the beginning of 1828 to the end of 1832, forty-seven died, being nearly one in three. It would appear, however, that the great mortality at the Hôtel Dieu partly depends on its proximity to the *Bureau Central*, in consequence of which it is the receptacle chosen for the worst cases.

Out of seventy-three cases where the attack was sudden, there were twenty-six deaths. Out of thirty-nine cases with premonitory symptoms, there were twenty deaths. On which the Professor says, strangely enough,

“ La différence entre ces résultats est assez forte pour ne point être négligée; il est évident que le pronostic est plus fâcheux chez les sujets chez lesquels l'invasion a lieu d'une manière subite, et qu'au contraire, il est plus favorable chez ceux qui ont offert des préludes.” (P. 433.)

It is obvious that the reverse is the fact, provided our author's figures are correct.

When a decided amelioration takes place, particularly from the tenth to the twentieth day, and the symptoms return after a short time with greater intensity, the termination of the case is almost always unfavourable.

Treatment. In the slighter cases of typhus fever, it is sufficient to prescribe cooling beverages, such as lemonade and orangeade, and linseed poultices to the abdomen, if it is painful; together with lotions of vinegar and water applied over the whole body; or baths, if the heat is great; mucilaginous enemata several times a day; cold compresses to the forehead when there is headach; and hot poultices, or even sinapisms, if there is a tendency to coma.

These remedies alone would generally be sufficient; nevertheless, it is useful, even in the slightest cases, to begin with a bleeding, whose first effect is to diminish the headach, and to hasten the approach of the period when it ceases. When the headach or the abdominal pain is intense, leeches may be applied; in the former case to the mastoid apophyses, in the latter to the anus. Our author treated a large number of cases with the chloride of soda, but, though at first his success was marked, subsequent cases seemed to show that the remedy had no especial efficacy. The majority took from fifty-four to ninety ounces daily of a solution containing a grain or a grain and a half of the chloride in an ounce, besides the use of lotions and enemata impregnated with the same substance.

This work certainly does great honour to Professor Chomel and the illustrious school of medicine to which he is attached; but it must not be considered as a treatise on typhus fever in

general, but on the disease as it appeared in Paris from 1828 to 1832; for many of the symptoms mentioned by our author (such as the eruption and the diarrhœa,) cannot be admitted into a definition of the disease, as they by no means universally attend it. The book is certainly a large one; yet those of our readers who are not overwhelmed with occupation will do well to peruse it, for it is the production of a genuine observer, —a man enjoying vast opportunities of gathering knowledge, and possessing talent to profit by them.

The Transactions of the Provincial Medical and Surgical Association. Vol. II.—London, 1834. 8vo. pp. 546; coloured Plates.

THE volume before us commences with an account of the first anniversary of the Society whose Transactions it contains. After this follows an address, by Dr. BARLOW, and three essays on Medical Topography. The first is an account of the district of the Land's End, by Dr. FORBES; the second, by Dr. CARRICK and Dr. SYMONDS, is on the Medical Topography of Bristol; and the third is an account of Stourport, in Worcestershire, and its neighbourhood, by Mr. WATSON. It is with considerable reluctance that we pass over these interesting papers without extract or comment, but we must hasten on to matter more immediately practical. Dr. Forbes' essay is especially elaborate, and he promises another chapter, containing the medical history of the inhabitants of the district, on a future occasion.

Dr. BARDSLEY has contributed *Additional Facts and Observations on the Efficacy of Strychnine in some Forms of Paralysis*; his former remarks on this subject having been contained in the excellent work entitled "Hospital Facts and Observations," published four years ago. The author seems to us to be one of the few hospital physicians who are conscious of the vantage ground on which they stand, and of the comparative facility with which they might advance the progress of the healing art: had he many rivals, we should not have to regret that the improvement of the practice of physic does not keep pace with that of the auxiliary sciences, pathological anatomy and pharmaceutical chemistry.

After quoting the testimony of Dr. Elliotson and Dr. Graves in favour of the employment of strychnia in some paralytic affections, Dr. Bardsley says,

"My further experience with strychnia leads me to repeat, that it is in such cases of paralysis as seem to arise from diminished nervous excitement, that this remedy is particularly indicated;

and, generally speaking, that it is likely to prove more serviceable in paraplegia, unconnected with spinal disease, than in hemiplegia, though I feel confident that it will not unfrequently be found an important remedial agent even in hemiplegic paralysis, when the cerebral mischief is not very extensive, and the nerves are still capable of being acted upon by appropriate excitants. I can state, on the authority of facts occurring within the sphere of my own observation, and that of others, that strychnia has proved curative in cases of palsy of long standing, after the complete failure of the discipline ordinarily adopted in these attacks. The late Dr. Somerville, of Stafford, communicated to me an interesting case of paralysis of the hands, arising from the absorption of lead, in which strychnia removed the disease in less than a month. The patient commenced with the eighth of a grain twice daily, but at length took one grain within the same interval." (P. 202.)

Dr. Bright, too, speaks favourably of it; but observes, that "cases of hemiplegia from the rupture of vessels are not those in which this remedy holds the greatest prospect of success, though, with caution, it may be employed in the advanced stages of convalescence, with safety at least, and sometimes with benefit." Our author also quotes a very remarkable case, given by Dr. Gaskoin, in the *Medical Gazette*, in which "the patient, a boy twelve years of age, was incapable of moving the head, or any part of the vertebral column, from the place of support." The sulphate of strychnia was given in the dose of $\frac{1}{30}$, which was gradually raised to $\frac{1}{5}$, of a grain three times a day. A cure was effected in six weeks.

A case still more remarkable, if possible, was communicated to Dr. Bardsley in the spring of last year. A young lady, in the twenty-third year of her age, who was not able to walk more than three or four miles without a sensation of weakness and pain in the back, had a severe attack of remittent fever in the autumn of 1826. The dorsal debility increased rapidly, and by the end of May, 1827, she was unable to walk; in the succeeding years she went on from bad to worse, and, by the advice of Sir Astley Cooper and Sir C. M. Clarke, tried the usual remedies of cupping and counter-irritation, without any permanent benefit.

"The following account of her condition, on the 16th July, 1830, was drawn up by her regular medical attendant. 'She has now been ill nearly four years; she has entirely lost the use of her lower extremities, but their sensibility is natural, or rather more acute than usual; there is considerable pain across the loins, extending from one spine of the ilium to the other, and over the whole surface of the sacrum; there is also a diffused tenderness of the

integuments of the same parts, and also at times much turgescence and a feeling of fulness; there is considerable weakness of the upper extremities; she sleeps but indifferently in general, in consequence of pain in the joints, particularly the ankles and wrists, which she describes to be a sensation as if the joints were separating by violent extension. The periodical evacuations are regular, and tolerably natural; there is, in the intervals, occasionally some leucorrhœal discharge, which is not continued, but appears in considerable quantity suddenly, and then ceases: it is thin and transparent. The appetite is bad, and almost every article of diet disagrees with the stomach, inducing a sensation of fulness and oppression; the bowels are very irregular, and the evacuations, generally, very slimy and unnatural in their appearance. She is subject to rather frequent attacks of increase of all the dyspeptic symptoms, attended with headach and foul tongue, at which time there is an aggravation of all her painful symptoms. She is just recovered from one of these attacks, and the tongue is now clean and almost natural in appearance; the pulse is eighty-one, weak, and easily accelerated." (P. 208.)

The next day, (July 17th, 1830,) Miss S. began the use of the strychnia, by taking $\frac{1}{12}$ of a grain once a day, and continued to take it in increased doses till the 6th of November. Nothing could be more satisfactory than the effects of the remedy. First, her appetite and digestion improved, and soon after the pain in the back diminished; on the 23d of August she could stand with the aid of her crutches, and on the 5th of October she could walk five or six yards, leaning on her brother's arm only. The improvement continued after the medicine had been left off; and in May, 1831, she was capable of walking slowly for an hour without much fatigue. The largest dose administered was $\frac{1}{3}$ of a grain three times a day.

This case, while it showed the advantage to be derived from the persevering use of this alkaloid, showed also with what extreme caution it must be exhibited; as one third of a grain, taken twice a day, was capable of producing convulsive twitchings, alarming both from their violence and their duration.

Dr. A. T. Thomson, who has used this remedy with advantage in the form of the acetate, supposes that strychnia does not influence the circulation in the brain, even when given in fatal doses. The following case, however, seems to show that this opinion is erroneous.

William Jones, ætat. forty-six, was admitted into the Birmingham Hospital, March 25th, 1831. He was suffering from hemiplegia of the left side of three weeks' standing. On the fifth day after admission he began taking half a

grain of strychnia twice a day, and continued to do for five days, without any sensible effect. The dose was then increased to a grain twice a day, which at first produced spasmodic contractions of the muscles; but, as this dose gradually lost its power, and in a few days produced no effect at all, the patient was ordered to take a grain and a half every morning. The first dose, however, produced fatal opisthotonos, the death of the patient taking place three hours and three quarters after the administration of the strychnia.

“*Post-mortem Examination, seven Hours after Death.*—April 16, 1831. External appearances: The fingers were firmly contracted, and the muscular system, generally, was in a state of spastic rigidity.

Brain: A considerable quantity of limpid blood flowed from the division of the scalp; the vessels of the dura mater were also turgid with dark-coloured blood. The arachnoid membrane was opaque and thickened throughout all its inflexions, but particularly at the base of the brain. The basilar artery, and the arterial circle of Willis, were somewhat diseased, and spotted with atheromatous deposition. In the right corpus striatum there was an apoplectic clot, dark coloured and grumous, of an irregular figure, and in bulk about the size of a very large walnut. The substance of the brain, in contact and in the vicinity of this clot, which was clearly of previous formation, was in a state of ramollissement in several parts. The lateral ventricles contained about f. ʒiiss. of yellowish serous effusion. The other parts of the brain were healthy.

“The spine: The investing membranes were found in a highly vascular and injected state; the pia mater was of a florid redness, and everywhere congested with arterial blood; there were four recently extravasated patches of blood between this membrane and the arachnoid, which was also thickened and opaque, as in the brain. These patches were situated opposite the last dorsal and the two first lumbar vertebræ; and in the lowermost a distinct coagululum could be recognised. The spinal marrow itself was healthy. It is also to be regretted that the thorax and abdomen were not examined, owing to the interference of the friends of the deceased.” (P. 218.)

Dr. Booth, the narrator of this case, then gives the post-mortem appearances in two dogs killed by strychnia, showing that this poison causes congestion of the brain, contrary to the common opinion, which supposes its action to be confined to the spinal cord.

After giving a number of other successful cases, which we must reluctantly pass over, Dr. Bardsley has some observations on the external use of this powerful alkaloid. He says,

—“ I wish particularly to direct the attention of the profession to the external application of strychnia in that obstinate form of paralysis of the levator palpebræ superioris muscle, occasionally the drooping or falling of the upper eyelid, by which the eye becomes totally or partially closed. I have met with three examples of this kind, in which strychnia sprinkled on a blistered surface, established immediately above the orbit of the eye, has been productive of great benefit. It is proper to commence with the application of one sixth of a grain night and morning, progressively increasing the quantity to half a grain or a grain at the same intervals. The employment of galvanism may be advantageously combined with the application of strychnia in these cases.” (P. 237.)

We cannot, however, resist the temptation of extracting the table giving the result of the employment of strychnia in paralytic cases, in the Manchester Royal Infirmary, since the year 1830. The internal dose was generally from one sixth of a grain twice a day, to half a grain three times a day. The quantity employed externally was from one fourth of a grain to two grains, sprinkled on the blistered surface twice a day.

In the following tables, I.P., O.P., and H.P., mean respectively in-patient, out-patient, and home-patient.

“ *Table of Cases of Hemiplegia treated with Strychnia.* ”

No.	Name.	Age.	Duration of Complaint.	Disease.	Result.
1	John Johnson, O.P.	30	Two months.	Hemiplegia of left side	Cured.
2	Mary Harwood, I.P.	43	Two years.	Ditto.	No benefit.
3	John Beech, I.P.*	25	Ten months.	Hemiplegia of right side.	Relieved.
4	Eliz. Worsley, H.P.	58	Sixteen mths.	Ditto.	Little benefit.
5	Thos. Walton, I.P.†	57	Two months.	Hemiplegia of left side	Relieved.
6	Jane Macguire, I.P.	42	One month.	Ditto.	Cured.
7	Owen Connor, I.P.	33	Four months.	Ditto.	Relieved.
8	James Brown, O.P.	60	Two years.	Hemiplegia of right side.	No benefit.
9	Alice Burns, O.P.	33	Six months.	Hemiplegia of left side	Greatly relieved.
10	Mary Kelly, I.P.	39	Three months	Ditto.	Cured.
11	John Royle, H.P.	61	Sixteen mths.	Ditto.	No relief.
12	Charles Astley, O.P.	29	One year and a half.	Hemiplegia of right side.	Cured.

* “ Beech persevered in the use of strychnia for more than three months after he was discharged from the hospital, and, when I last saw him, he had almost entirely recovered the power of the right side.

† “ Walton died suddenly in the course of two months after quitting the hospital. He had not taken any strychnia during that time. On post-mortem examination the basilar artery was found in an ossified state, and a large clot of blood was detected on the medulla oblongata.”

Table of Cases of Hemiplegia treated with Strychnia.

No.	Name.	Age.	Duration of Complaint.	Disease.	Result.
13	Mary Brion, o.p.	59	Two years.	Hemiplegia of right side.	Little amendment.
14	Jos. Medcalf, o.p.*	33	Thirteen wks.	Ditto.	Cured.
15	Susan Scott, I.P.†	60	Six months.	Ditto.	Little relief.
16	James Ingham, H.P.	39	Two months.	Ditto.	Cured.
17	Patrick Dillon, I.P.‡	48	Three years.	Hemiplegia of left side.	No benefit.
18	Mary Furbar, o.p.	43	Six weeks.	Hemiplegia of right side.	Cured.
19	Jonath. Jones, I.P.§	60	Two months.	Ditto.	No benefit.
20	Cath. Davis, H.P.	28	Thirteen wks.	Hemiplegia of left side.	Much relieved.

* "Medcalf continued the use of strychnia for more than thirteen months. During the last three months, the paralytic limbs were galvanised each night and morning.

† "This patient died in a short time after her discharge from the hospital, with symptoms of cholera.

‡ "Dillon was very inattentive to the directions given to him by myself and our intelligent house apothecary, Mr. Lloyd; and I have reason to believe that, on several occasions, he deceived the nurse with respect to taking the strychnia pills.

§ "In Jones's case, many remedies had been previously employed, and with a similar unsatisfactory result."

"Table showing the Results of the Combined Internal and External Use of Strychnia in twelve Cases of Paraplegia.

No.	Name.	Age.	Duration of Complaint.	Disease.	Result.
1	Jane Brown*	13	Seven months.	Paraplegia.	Cured.
2	John Edwards.	53	One year.	Ditto, incomplete.	Relieved.
3	Sarah Jackson	16	Six months.	Complete.	Cured.
4	Thomas Pollitt	24	Thirteen mths	Ditto.	Cured.
5	Isaac Sampson†	60	One year.	Ditto.	No benefit.
6	Timothy Smith	39	Two years.	Incomplete.	Greatly relieved.
7	Mary Walsh	45	One year.	Complete.	No benefit.
8	Joseph Chadwick ...	36	Six months.	Ditto.	Cured.
9	John Christie	32	Nine months.	Incomplete.	Relieved, but afterwards became hemiplegic.
10	John Burgess.....	35	One year and a half.	Complete.	Relieved.
11	Sarah Higgison	48	Four years.	Ditto.	No benefit.
12	John Ellison	33	Nine months.	Ditto.	Much relieved.

* "This girl was brought to the infirmary from a distance of more than sixty miles. She had been under the care of a very eminent surgeon, who had previously tried the usual remedies, but without benefit.

† "This man had led a previous intemperate life, and his constitution was much shattered."

“Table showing the Result of the External Application of Strychnia in eight Cases of Palsy of the Wrists from Lead.

No.	Name.	Age.	Duration of Complaint.	Result.
1	William Roberts ...	40	Three months.	Cured.
3	Thomas Bennett ...	38	Six weeks.	Cured.
3	James Constantine	29	Three weeks.	Cured.
4	John Logan	40	Two months.	Relieved.
5	William Hays	32	Six weeks.	Ditto.
6	Thomas Dane	54	Three months.	Ditto.
7	Charles Wood	23	One month.	Cured.
8	Richard Cranshaw...	39	Nine weeks.	Cured.

“Both Logan and Hays recovered the entire power of the wrists in the course of a fortnight or three weeks after leaving the hospital. I received no further information respecting Dane.” (P. 238.)

There is a paper on *Chronic Peritonitis*, by Mr. EDWARD THOMPSON. He acknowledges the extreme difficulty of the diagnosis, but says that there is one symptom which he has never known to be absent, viz. “a feeling of uneasiness on descending a stair, or stepping from an elevation.” Should this be confirmed by other observers, the diagnosis would be extremely easy; but, until this is the case, we hope that no one will adopt the method of treatment recommended by our author, which is neither more nor less than the regular British panacea, or all-heal—salivation, to wit. Were this paper destined to make an impression on the medical public, we should fear the rise of a peritoneal sect, as there formerly was an hepatic one, by whom patients were “put through long and ruinous courses of mercury, without any benefit.” (*Abercrombie on Diseases of the Stomach, &c.* second edit., p. 345). *Dii tale avortant omen!*

Mr. JAMES DAWSON has given *the History of a Case of Lithotomy by the Rectum*, which is sufficiently interesting to induce us to present our readers with a large portion of it.

“Robert Cox, nearly three years and a half old, of diminutive form and sickly aspect, was admitted into the Liverpool Infirmary in January, 1832.

“The history of this child’s sufferings, during the past six months, was detailed by his father, and it was sufficiently distressing to lead to the belief of the presence of a stone in the bladder. After a few days of repose the sound was passed, but no calculus could then be detected. The urethra was found to be short and very narrow, admitting, with difficulty, the smallest instrument. The bony outlet of the pelvis was deformed; the space left between the conjoined pubic and ischiadic branches being narrowed to a degree I had never before witnessed; this space, by admeasurement, not exceed-

ing one third of an inch; the course of these branches, to within one quarter of an inch in front of the anus, was nearly parallel; from this point into the tuberosities their divergence was abrupt, leaving ample space for the anus itself." (P. 301.)

After remaining in the hospital a few weeks he was sent home, but returned in five months.

"His mother had entirely neglected him; she had allowed the anus to remain in a state of prolapse nearly all this time, so that the exposed mucous membrane had acquired a deep purple tint, was beset with excoriations and ulcerations, and presented, altogether, a very menacing appearance.

"Some pause was necessary, in order to bring the part into a condition to bear any future exploration.

"Taking advantage of a tranquil state of the rectum, I passed the finger, when its point was abruptly met, about half an inch within (or beyond) the fibres of the sphincter ani, by a bulging downwards, in a pouch-like form, of the upper wall of the rectum, through which membrane could be felt, but not very distinctly, the outline of a solid, and hence, probably, a foreign body, of about the size of a large Spanish olive, which appeared to be firmly seated in its novel situation.

"The bladder was forthwith sounded, when the instrument struck against a stone. The foreign body sustained by, and felt through, the medium of the anterior wall of the rectum, was hence satisfactorily identified with the calculus just detected in the bladder. Here, then, was an instance of sacculated stone. It is useless to inquire whether the pouch was a congenital, or an accidental formation. One thing seemed to be certain, viz. that, owing to the extreme narrowness of the bony outlet, the calculus was inaccessible by the usual lateral operation; indeed, I feared, at one time, it might be so by any other route." (P. 302.)

It was now determined to operate by the rectum, as soon as the state of his health would allow of it. The agony he suffered in passing his urine, though unrelieved by large doses of various narcotics, yielded to the introduction, at stated intervals, of an elastic gum catheter, which had been made to retain its curve without the wire. In order to prepare the rectum for the passage of the urine, astringent and sedative injections were at first employed, but were found to be worse than useless. The injection of cold water twice a day was then tried, with great benefit, for it cured a chronic diarrhoea to which the child had long been subject. The operation was performed in January, 1833, in the following manner.

"He was bound by no ligatures. The nurse supported him on a pillow on her lap, in the usual position. A gum-lancet, having its anterior edge rounded and very keen, was laid flat on the finger,

which, thus armed, and oiled, was introduced through the anus, so as to reach a point a short distance beyond the recto-vesical pouch, when its edge was turned upwards, and a decided cut made, by drawing the instrument from behind, forwards, in the median line, through the walls of the pouch, and up to the stone, on the hard surface of which the edge of the lancet was distinctly felt to grate.

"I may mention, that the back part of the blade of the instrument was blunted, which allowed the point of the finger to project beyond it, and which was thus at liberty to direct, as well as to execute, the intended incision. After pausing a few moments, to allow time for the retraction of the divided structures, the finger was again passed, when the calculus was felt to be entangled among a mesh of elastic fibres; hence a second section became necessary, in effecting which the speculum was employed.*

"The calculus was now found seated in the upper, or vesical region of the sac, whence, having been displaced by the finger, it fell into the rectum, from among the valvular folds of which, after eluding the attempt once or twice, it was finally withdrawn by the help of Pellier's double silver wire, which served the purpose of scoop and lever. No blood was lost. The operation lasted nearly five minutes.

"The calculus was found to be much smaller than we had been led to expect. I have omitted to state that, during the operation, a quantity of hardened or dried mucous escaped, along with the fæces, through the sphincter ani; it resembled, in form, the peeled skin of a small apple, and it struck us, at the moment, that this substance might have been coiled round the lower moiety of the concretion, something after the manner of the cup of the acorn, and might, in this way, have added to its apparent magnitude.

"The child passed two liquid stools on the day of the operation, in each of which a clot of blood was found, equal in quantity to about two drachms. He passed a very tranquil night. During the four succeeding days the evacuations from the rectum were chiefly made up of urine. About this period of the after treatment, 'Clot Bey' visited our Infirmary; he expressed great interest about the child, but he gave me no hope whatever of the ultimate closure of the communication between the two outlets. A very slight degree of tenderness was detected on pressure, at the lower part of the abdomen, on the second day after the operation, but this was very promptly and properly treated by the house surgeon, Mr. Simon, and no more was heard of it afterwards. On each succeeding day two liquid motions were passed, the urinous admixture being always perceptible in them; the anus, however, remained free from the slightest appearance of excoriation.

"And now was experienced the benefit of the sphincter ani.

* "The employment of this instrument was productive of great torture to the child; and, as the degree of stretching to which the mucous membrane was exposed by its presence was undesirable in every point of view, it was instantly withdrawn."

The control exercised by the fibres of that muscle kept him clean and dry. It was only when the desire to empty the bowel came on with too much suddenness and urgency to allow time for the bed-pan to be placed under him, that his bedclothes or body-linen were at all stained by the excretions.

“On the tenth day from that of the operation, to my surprise and delight, I found he had passed his urine, to the amount of four ounces, in a full stream through the penis; it was voided without pain, or straining, or spasm. After this, no urine was ever detected in the evacuations.

“The calculus, twenty-four hours after extraction, and spontaneously dried, weighed just sixty grains. A few particles had been separated in the operation. It consisted, externally, of ammoniaco-magnesian-phosphate. The internal part, where seen, consisted of phosphate of lime.” (P. 307.)

This poor child was allowed to remain in the Infirmary for six months, and died, a few days after leaving it, of the pestilential cholera.

Mr. GRINDROD has communicated a case of *Hydrophobia.*

“Thomas Pitt, æt. six and a half, was, on the morning of Monday December the 2d, 1833, bitten over the left eye by a rabid dog. The parents of the boy immediately washed the wounds, and took him to a public institution, where, however, no decisive measures were pursued. No further notice was taken of the boy until, upon hearing of the circumstance, I called upon the parents, on the ensuing Wednesday, and, with their consent, excised the parts, and afterwards applied a strong solution of caustic. The boy called at my house frequently afterwards, in order to have the excised parts dressed. They soon healed.

“On the morning of Wednesday, January the 8th, the boy appeared in his usual health playing with his associates. About two o'clock in the afternoon he attempted to drink some water, but, on elevating the vessel to his mouth, he trembled, and declared he could not drink any. This circumstance did not excite the suspicion of his parents, who attributed it to the effects of the cold water on the teeth.” (P. 311.)

The nature of the disease soon became manifest, and the child died early in the morning of January 11th. The following were the more remarkable post-mortem appearances:

“The mucous membrane of the trachea, immediately before its bifurcation, was highly vascular. The submaxillary and sublingual glands were much enlarged.

“On opening the pharynx, it was evident that this part had been much affected during life. The greater portion of its inner surface was intensely inflamed, and terminated in a defined line opposite the cricoid cartilages. The velum pendulum palati, uvula, and

MR. PRICHARD'S *Tuberculous Affection of the Kidney*. 361

most parts of the pharynx, shewed considerable development of the mucous glands. The tonsils were slightly enlarged. The œsophagus was greatly inflamed near its termination, and in one part the mucous membrane was slightly abraded. The whole mucous membrane was so softened, that the slightest touch of the scalpel separated it.

“*Abdomen.* The stomach was remarkably contracted and completely empty. Intense inflammatory patches were seen on the rugæ, which were very much developed. The mucus was very thick, and had, in some parts, an unusually deep colour. On one of the rugæ was observed a dark spot, about the size of a small shot. The stomach appeared healthy between the rugæ, but had, in some places, a darker colour than natural. The mucous membrane of the duodenum displayed intense inflammation also, and the glandulæ solitariae were exceedingly enlarged, and very numerous.” (P. 325.)

The bitch was dissected by Mr. Jordan, who found the following appearances:

“The lungs were of a very rosy colour, but their structure was healthy. The quantity of mucus in the bronchial tubes was small. The mouth healthy but very parched. The whole of the pharynx was of a deep rosy colour, which terminated in a defined line immediately opposite the cricoid cartilages. The larynx was healthy. A considerable vascularity was manifest at the lower part of the œsophagus, and was continued into the stomach. On opening the stomach, a mass of substance was observed, which had certainly the external appearance of a bird's nest. On being separated, it was found to consist of straw, wood, leather, &c. These materials were in a remarkably dry state. Upon being removed, the mucous membrane was found to be covered, in many parts, with a tough mucus. The rugæ were particularly manifest, and upon their surface were observed, here and there, intense inflammatory patches, and, in other parts, black or dark brown streaks, which, in a few hours, became still more perceptible. The external surface of the stomach seemed to be healthy. The par vagum and nerves of the tongue were perfectly healthy. The salivary glands were of the usual colour and size.” (P. 326.)

Mr. PRICHARD relates a very remarkable case. A lady, aged sixty-eight, who was supposed to be suffering from renal calculus, passed a large biliary concretion by stool, in November, 1828. She had previously been under our author's care, and again sought his advice in May, 1829. From this time till her death, in September, 1830, she laboured under so perplexing a multitude of symptoms, that the diagnosis was difficult, if not impossible. Under the date of February 16th, 1830, we find it stated, that, “on examining the back, a tumor was discovered in the region of both kidneys; that

362 MR. PRICHARD'S *Tuberculous Affection of the Kidney.*

on the right side being circumscribed, and much more elevated than that on the left: on both sides, but more especially on the right, a pulsation, synchronous with that of the radial artery, was clearly perceptible, and I find in my note the following question, 'Aneurism, or abscess with pulsation communicated?' Whilst these tumors, especially that on the right side, went on increasing, the power of moving the limbs daily improved, and the general health remained stationary." (P. 344.)

Large purulent discharges from the bladder afterwards occurred, with temporary relief: on one day two ounces of pure pus were passed. The following was the solution of some of the difficulties.

"*Post-mortem Examination, twelve Hours after Death.* The general appearance of the abdominal viscera, *in situ*, natural.

"The stomach contained a quantity of dark fluid, by which it was much distended.

"The spleen was very small.

"The liver was unnaturally small and very pale, except in the neighbourhood of its anterior edge on either side of the suspensory ligament, where it was pretty much coloured by bile. On a cursory examination, it was difficult to discern any thing like a gall bladder, but, on further investigation, this organ became evident, in the form of a semi-cartilaginous membrane, puckered up into several elevated folds, within one of which a small gallstone was lodged. No bile, nor appearance of bile, could be detected in any part of this membrane. The cystic duct, of a natural size, proceeded downwards, from a portion of it, and its internal coat was deeply tinged with bile. The hepatic duct was natural, as were the *pori biliarii* and the *ductus choledochus*. The right kidney, much enlarged, weighing twelve ounces, formed the external tumor. Its adipose and cellular investment adhered firmly to it, and the lower and back part of which shewed marks of recent inflammation, being, in its thickened state, inseparable from the organ itself. The renal arteries, veins and ureter, were healthy, excepting that the latter contained curdy pus. A section of this kidney exposed a mass of extensive disease, the centre of which had a firmly gelatinous character, and was intersected by white bands. In other parts the appearance was tubercular, more or less advanced to a state of ramollissement; its superior portion, from which the discharges of curdy purulent matter from the bladder proceeded, was in a state of suppuration.

"The left kidney weighed four ounces, and was tolerably free from disease, excepting that, on its surface, a small hydatid had formed.

"The bladder, small and very much thickened, contained about $\frac{3}{4}$ iss. of thick foetid urine, mixed with the curdy pus from the right kidney.

“The aorta, where it passed over a considerable protuberance of the spine, firmly adhered thereto, and its external coat was inflamed in patches, and, in parts, firmly ossified.

“A considerable protuberance presented itself about the last dorsal and first lumbar vertebræ, and the psoas muscles, on either side, bulged out laterally. On removing this portion of the spine, and examining it, it appeared that the spinous processes of the last dorsal, and the first and second lumbar vertebræ, were separated from their bodies, and partook of the morbid changes surrounding them. The first lumbar vertebra was converted into a soft carious mass, having partially the same character of tubercular ramollissement as the kidney. The dura mater, in the vicinity of this mass of disease, appeared healthy; on opening it, the medulla spinalis had evident marks of recent inflammation, and the pia mater investing it and the proceeding nerves were much injected. On removing the psoas muscles, several tumors, as large as a walnut, appeared, closely attached to the spine, two on one side and one on the other, having the same character of scrofulous tubercle as the other diseased parts.” (P. 345.)

How and when the gallstone passed into the bowels was a question not resolved by the dissection, and must be considered a curious problem in pathology.

Mr. WATSON gives an account of a case of *Uterine Hydatids*. The patient was twenty-two years old, and had been married ten months. There were several discharges of hydatids, followed by a flow of blood from the uterus, which, after resisting medicine, yielded to injections of port wine and water. The patient's recovery was perfect.

We are indebted to Mr. THOMAS DAVIS for the account of a case which is probably without a parallel. A boy accidentally shot himself, driving a piece of stick three inches in length between the third and fourth ribs on the right side, where it disappeared. He survived the wound thirty-seven days, and, on examination, the stick was found in the right ventricle of the heart, incrustated with a thick coagulum as large as a walnut. There was neither wound nor cicatrix, either in the heart or pericardium. Mr. Davis supposes that “the stick, after wounding the lung, passed into the vena cava, and was carried by the stream of blood, first into the right auricle, and then into the right ventricle, where it became fixed.”

Mr. W. F. MORGAN, late house-surgeon to the Bristol Infirmary, gives the method of *reducing Dislocation of the Shoulder* practised in that institution. It invariably succeeds in recent cases, of which Mr. Morgan saw at least 150, as

pupil and house-surgeon. The following is the method recommended.

“As soon as the patient is seen, and the nature of his injury ascertained, he is placed sideways on a common chair, with the dislocated arm hanging over its back, which is padded for the reception and support of the axilla. A reel-towel is then fastened on the arm, immediately above the condyles, by a running noose, with the knot outwards; and its lower part is formed into a loop some way above the ground, to receive the foot of the surgeon. One or two assistants press on the shoulder, much in the same way as Mr. Toogood advises, to fix the scapula and prevent the patient from rising, and the surgeon puts his foot, or, occasionally, his knee, into the loop of the towel, and gradually and unremittingly bears on it with the whole weight of his body. In a very little time, generally within three or four minutes, the head of the bone slips into its place with an audible jerk; the patient’s sufferings are moderate, and of short duration, and the use of his arm is soon restored.” (P. 362.)

Dr. WARD has communicated *Observations upon Cholera, as it appeared in Wolverhampton and its Neighbourhood, in August, September, and October, 1832.* This is a sensible paper, and evidently written by a practical man, but does not contain much matter that would be new to our readers. Dr. Ward speaks highly of Dr. Stevens’s method, but thinks croton oil the best remedy in the stage of collapse.

In the *Observations on the Peculiarities of the Diseases of Infants and Children*, by Dr. J. K. WALKER, we find the following passage:

“There is reason to believe that the uvula may, from various causes, be in a state of hypertrophy and relaxation, so great, as to keep up a constant irritation, and, in the opinion of Baron Larrey, even to occasion actual suffocation. I have seen, in many instances of laryngeal affections in adults, the most decided relief follow the removal of a portion of the uvula, which, by its elongation, was a source of continued irritation. In one such patient, I had the pleasure to find an almost immediate amendment in the cough, as well as other symptoms; and, no doubt, cases occur, where this state of the uvula has often been overlooked, and the cough and other symptoms have been attributed to a chronic disease of the larynx. It will sometimes happen that, in epidemic fever, accompanied with sore throat, the uvula is the first part affected, projecting into the rima glottidis, and threatening instant suffocation. In such cases the breathing is embarrassed, the voice extinguished, and the deglutition impeded. Yet, have not such symptoms occasionally occurred, without the real source of the mischief being even suspected? A case of this kind is recorded by Baron Larrey, where

excision of the uvula gave instant relief. The patient was threatened with immediate suffocation, and, on inspection of the throat, the uvula was found drawn down into the rima glottidis, to the extent of nearly half an inch, by the act of inspiration. By its removal, perfect freedom was given to the respiration, and the patient was extricated from impending asphyxia." (P. 408.)

There is nothing so new, say the French, as that which has been forgotten. Many of the unpleasant symptoms arising from affections of the uvula have been described by that vigorous but somewhat affected writer, Aretæus: in his chapter *Περι των κατα κιονιδα παθων*, he says, for example, *Πνιξ δε επ' αυτειοσι πασι, και ηκεισα ρηδιως καταπινθει· Βηξ επι πασι μεν, μαλιςα δε επι τοισι Ιμαντιοισι, και επι τοισι Κρασπεδοισι· γαργαλισμος γαρ της αρτηριης απο των υμενων γιγνεται· εσθ' οπη δε και ενσαζει τι τον υγρω λαθρη ες την αρτηριην, οθεν αναβησσει· Επι δε τη Σταφυλη, και τη Κιονι, δυσπνοια επι μαλλον, και καρτα πονηρη καταποσις· κ. τ. λ.* (P. 8. Ed. Wigan.)—*i. e.* in all these affections there is a sense of suffocation, and the patients swallow with great difficulty; in all there is a cough, but particularly in those called *Himantion* (strap) and *Kraspedon* (fringe): for the trachea is irritated by the membranes, and in some cases moisture drops into the trachea, and causes coughing. But, in the affections called *Staphyle* (grape) and *Kion* (uvula), the dyspnœa is still greater, &c.

Dr. Walker gives three interesting cases, in one of which enlargement of the liver, and in the others obscure abdominal diseases, were cured by the hydriodate of potass. The ages of the patients were eleven, three, and two and a half.

MR. E. A. JENNINGS has contributed *an Attempt to ascertain, by Experiment, the exact Differences between the Changes produced in the Lungs of Stillborn Children by their Artificial Inflation, and those produced in the Lungs of Stillborn Children by Natural Respiration.*

Our readers are well aware of the test proposed by M. Beclard, who asserts that, when the lungs of a stillborn child float, in consequence of artificial inflation, the air may be squeezed out of them, and they will then sink. Our author gives seven experiments, all of which go to confirm the truth of this ingenious test. When the child had been stillborn, and the lungs artificially inflated, the lungs could always be made to sink, by compressing them. When the child had breathed, it was impossible to effect this, without completely mashing the lungs. In one very curious case, where the child had breathed imperfectly for half an hour only, the right lung floated, and the left lung sank, with the exception of a small part about its root.

There is another test, proposed by Professor Brent, and quoted by our author. It is as follows :

“ In the foetus, the arterial duct proceeds from that part of the trunk of the pulmonary artery where it divides into two great branches, and running parallel with the arch of the aorta, and in contact with it, joins it at a very acute angle. If the child has breathed, even for a few moments only, the aperture by which the duct enters the aorta becomes oval ; and, afterwards, the diameter gradually, but rapidly contracts at the aortal end, so that the vessel forms a cone, with its base towards the pulmonary artery. If the child has breathed several hours, or days, it resumes its cylindrical form, but becomes all much contracted and shorter ; so that, from being equal in diameter to the pulmonary trunk, it becomes intermediate between that and the pulmonary branches, or, even, not larger than the latter. If the child has lived above a week, it is wrinkled, and no thicker than a crowquill, while the pulmonary branches are, at least, as large, and the pulmonary trunk as thick as a goosequill.” (P. 438.)

On this point the author says,

“ Before respiration the arterial duct is of equal diameter throughout its course, considerably larger than either of the pulmonary branches, and nearly as large as the pulmonary trunk.

“ As far as these experiments go, they fully confirm the above statement, which corresponds with what Professor Brent states upon the subject.

“ 6th. After respiration has been established, the arterial duct becomes conical, the apex of the cone being towards the aorta ; it is also considerably smaller in size than the pulmonary trunk, and one or both of the pulmonary branches will be found, in diameter, nearly equal to, if not exceeding it.

“ In experiment 7, where respiration had evidently existed in one lung only, it will be observed that one pulmonary branch had increased in size, while the other remained much smaller than the ductus arteriosus. Imperfect as the respiration was in this case, yet the conical form of the duct, and the right pulmonary branch being as large as the duct, showed the changes effected by respiration in these parts with sufficient clearness to leave no doubt on the subject of its having taken place. My observations do not accord with Professor Brent's on the appearance of the orifice at the termination of the ductus arteriosus in the aorta. He states that if a child have breathed but for a few moments, the aperture becomes oval. I have not been able to satisfy myself on this point. In experiments 1, 2, and 3, when respiration had not taken place, it was impossible to say whether the aperture were round or oval ; and in cases where it had existed, I have found the same difficulty in deciding on its form. Until respiration has existed for some time, when the aperture becomes puckered, (as in experiments 5 and 6,) I confess my inability to decide on the form of the opening,

from the facility with which it may be made to assume either a circular or oval shape." (P. 454.)

We are surprised that he should say, "that from the moment that respiration commences all the blood of the body circulates through the lungs," (p. 452;) for the foramen ovale is usually open for some days after birth, and it is reasonable to suppose that blood passes through it.

Mr. Jennings's paper deserves attention, and we trust that his experiments will be repeated by other physiologists.

The *Reports of the Birmingham Infirmary*, and *Eye Infirmary*, are well drawn up; but the length to which this article has already extended will prevent our giving any account of them.

The volume concludes with a *Memoir of Dr. Darwall*, equally remarkable for its clear and graceful style, its sound common sense, and the lofty generosity of its sentiments. We are indebted for this specimen of what biography should be to that accomplished physician, Dr. CONOLLY.

We recommend our readers to add this volume to their libraries: some of the papers are immediately and practically useful, and others will supply the philosophic practitioner with ample materials for thinking.

Principles and Illustrations of Morbid Anatomy; adapted to the Elements of M. ANDRAL, and to the Cyclopædia of Practical Medicine, &c. By J. HOPE, M.D., F.R.S., Physician to the St. Marylebone Infirmary, &c.—London, 1833 and 4. 8vo. Parts I. to X. pp. 248 and lxxxiv; with numerous coloured Plates.

IN our second Number we gave a short notice of the seventh part of this beautiful work; but, as ten parts are now lying before us, we trust that we shall gratify many of our readers by giving them a brief abstract of the contents of the whole book.

The first two parts comprise diseases of the lungs, such as acute peripneumony, abscess, pleurisy, phthisis, pulmonary apoplexy, emphysema, bronchitis, &c. In these, as throughout, the plates are remarkable for their fidelity to nature, as well as their pictorial beauty. The 46th figure gives a good representation of ulceration of the fauces and epiglottis, with vegetations extending into the larynx, together with hypertrophy of the mucous glands and papillæ. We quote the case annexed to it, because it is short and pithy enough to have obtained the author a prize in Sparta.

"CASE. Syphilis treated with excess of mercury." (P. xiv.)

The third part contains an account of the diseases of the heart; and we give Dr. Hope great credit for not having yielded to the temptation of dilating too far on a subject, on which his long and zealous researches must have supplied him with a superabundance of materials. The 54th figure, representing the appearances on dissection in a case of acute pericarditis, deserves especial mention. The patient was "a man in La Charité, who had protracted peripneumony, in the last stage of which pericarditis supervened, and was suspected by Chomel, four days before death, by the pulse becoming very irregular; this being the only well-marked symptom. The pericardium contained eight ounces of turbid, flocculent, yellow serum." (P. xvii.)

The fourth and fifth parts are dedicated to the diseases of the liver, and form a good compendium of what is known, and what is conjectured, on its physiology and pathology.

The sixth, seventh, eighth, and ninth parts are devoted to diseases of the alimentary canal below the diaphragm.

The following observations, taken from the ninth part, are ingenious and interesting, though we would not pledge ourselves to the soundness of all the theories contained in them.

"Seats of Hypertrophy. There is no part of the canal below the diaphragm in which hypertrophy of the submucous cellular tissue has not been observed; but it occurs principally in the parts most liable to chronic inflammation of the mucous membrane, namely, the stomach, the rectum, the colon, and the end of the ileum. Hypertrophy of the muscular coat is found principally where that coat is naturally of the greatest thickness, namely, in the pylorus and pyloric third of the stomach, in the cardia, the rectum, and the colon.

"Contraction of the pylorus is occasionally attended with enormous dilatation of the stomach, which has been known to reach even to the ossa pubis. (*Andral, Clin. Med.*) Under these circumstances the walls are sometimes attenuated, and sometimes of natural thickness. The dilatation arises from distension of the organ, by accumulations of food which cannot pass through the pylorus. After the lapse of several days, the stomach, distended to the extreme, relieves itself by disgorging its contents; and hence, says Andral, arise those vomitings, so remarkable for their extreme copiousness, which supervene from time to time, (every eight or ten days, for instance,) in individuals labouring under contraction of the pylorus. When the contraction proceeds from carcinomatous tumours, the vomiting ceases when ulceration of the tumour leaves the orifice free; but the symptom recurs in proportion as the tumour is regenerated. It occasionally happens that similar dilatation of the stomach takes place when the pyloric orifice is enlarged; an anomaly which is explained by the thick-

ened walls of the viscus having lost their tonic contractile power; whence they allow accumulations to take place, as in an inert bag. When the pylorus is much thickened, a tumour may sometimes be felt externally; and, when the whole stomach is diffusely thickened and contracted, without forming any particular tumour, an unusual resistance is, in some cases, perceptible over the whole epigastrium.

In the small intestines, hypertrophy of the submucous tissues is rare, and it is generally confined to a particular spot, of small extent. Sometimes the symptoms of stricture are produced by it, and increase from time to time to those of strangulation, of which the patient, after several relapses, usually dies. The intermittent nature of the symptoms of strangulation is ascribed by Andral to temporary tumefaction of the mucous membrane of the contracted portion; but it is also certain, that the mere circumstance of distension of the gut above the stricture will, in contractions of a certain form, tend to close the passage; as, for example, in the stricture, fig. 177. In these cases the gut above the stricture is sometimes permanently dilated to three or four times its natural capacity.

In the colon, hypertrophy is more common at its two ends than in the middle; for the simple reason, that the mucous membranes and follicles are more subject to disease at the two ends. The thickening is in general attended with contraction of the gut; but sometimes the reverse takes place, and the walls, having lost their contractility, become dilated into a cyst with thick and hard parietes, forming adhesions with the contiguous parts, and presenting externally the feel of an abdominal tumour. (See case 105, by Abercrombie, on the Abdominal Viscera.)

Stricture of the rectum, or of the colon, (fig. 177,) is in general nothing more than hypertrophy of the submucous tissue (*a, a,*) succeeding to irritation and thickening of the mucous membrane itself.

“Condylomata around the anus are formed by hypertrophy of the submucous cellular tissue, covered with the thickened and more or less injected mucous membrane within the gut, and by the cuticle exterior to it. Fig. 179 represents a good specimen of the disease. The pale part, *a*, is a segment (about one fourth) of the sphincter ani: all exterior to it is a triangular portion of one side of the nates. The alteration sometimes consists of distinct rounded tumours, like hæmorrhoids, with necks narrower than their heads, as seen at *b, c, d*; in other cases there is only a diffuse, granulated thickening around the anus, as at *e*, where the diseased skin is a third of an inch thick; but most commonly this thickening and round tumours coexist, as in the present figure. The surface of the disease is highly vascular. During life the portion represented was universally red; but, after death, the blood gravitated away from the parts *a, c*, leaving them lead coloured, and stagnated in the large tumors, *b*, and other dependent parts, rendering them of

an intense violet hue. On cutting them, blood oozed freely on pressure. When the thickened cuticle was peeled off, the surface had the granular appearance of a common wart, and the tumors grated like scirrhus, when divided with the scalpel. Sooner or later suppuration and ulceration take place, and the disease then assumes appearances often designated by the term *cancer*. In connexion with external condylomata, Andral once found similar globular bodies, of livid red colour, studding the whole internal surface of the rectum.

“Hypertrophy of the intestinal canal occurs most frequently between the ages of thirty-five and sixty-five, and is very rare between puberty and thirty-five. It is not uncommon in children between the ages of four and twelve, when of unhealthy constitutions, and subject to chronic diarrhœa.

“There is reason to believe that the blood-vessels and nerves of the intestinal canal may become hypertrophous (*Path. Anal.* ii. 86.) Hypertrophy of the lymphatic apparatus is a familiar affection; this being the nature of the enlargements of the mesenteric glands following protracted inflammation of the intestinal mucous membrane, as in figs. 154 and 155.” (P. 213-216.)

The tenth part contains a short chapter on External Cancer, and the commencement of the account of diseases of the Uterine System.

Our imperfect list of the subjects treated of by the author, together with our long quotation, may give our readers some notion of the variety and extent of the topics discussed in this work. These Illustrations deserve great praise, yet there is a very serious defect in them: they contain too much of Andral, and Laennec, and Cruveilhier, and too little of Dr. Hope. The author will reply, that he gave us fair notice of his intentions on the title-page; but we must still rejoin, that we would rather that he had written a book substantive than a book adjective. However, had the author committed a hundred errors greater than this, the coloured drawings have merit enough to redeem them.

An Inquiry into the Principles and Practice of Medicine, founded on original Physiological Investigations. By G. CALVERT HOLLAND, M.D., &c. Vol. I.—London, 1834. 8vo. pp. 540.

No study is better fitted to teach men humility than that of medicine: affording unbounded scope for observation and for thought, presenting an object to which scarce any variety of knowledge is inapplicable, and opening a field in which every department of philosophy is cultivated with a common aim, it has been in all ages a favorite pursuit of the most gifted minds; yet to this hour it remains the most imperfect and unsatisfactory of the sciences. The seductive character of

the pursuit, not less than its difficulty, has tended to retard its progress: and it has too often happened that active and ingenious minds, directed to a subject as delightful as it is interminable, have lost all severity of tone, and revelled instead of laboured. The "great principle of induction" has been talked of till it has become a cant, but it has been very little acted upon; and till facts, not the *inferences* which frequently go by that name, but plain unvarnished facts, universally admitted as such by all reasonable men, become the sole basis of medical doctrine, the science must remain conjectural, and the art empirical. It will no doubt be mortifying to see the limits of our science apparently contracted, instead of being enlarged; to see by far the greater portion of a vast fabric of thought melt into air, and to find ourselves in possession of only a small number of truths, as the mere foundation of a structure of much tardier growth; yet for this we must be prepared, if medicine is ever to approximate to the exact sciences. Many, we are aware, will maintain, that it is altogether incapable of such approximation, but this we do not admit: our knowledge will most likely always remain extremely circumscribed, but it may be exact as far as it goes; if it be otherwise, it is not knowledge at all. At present, indeed, medicine must be allowed to be the most conjectural of the sciences: but what has made it so? the habit of deluding ourselves with dreams of knowledge which we do not possess; the eagerness to generalise before a sufficient number of facts have been accumulated; impatience of the way, in short, and weariness of the labour. It is the desire to get on too fast that has made medicine a vague and unsatisfactory pursuit, and if we attempt, as we daily do, to arrive at truth in this science by roads which were never known to lead to it in any other, need we wonder at having to retrace our steps?

Medicine, as M. Magendie justly observes, is the physiology of the sick man; its basis therefore is the investigation of the healthy functions of the animal frame. This principle is not denied: but how much is it perverted in its application, and how many pathological theories are confidently reared on the most gratuitous suppositions as to the functions of organs or systems? It is needless to cite examples of this: the whole history of medicine is one great example.

Although the dependence of medicine on physiology is universally admitted, they have hitherto been little cultivated in any sort of philosophical connexion with each other: nor is this surprising, when we consider the extreme difficulty of placing their relations in a just light. With diffidence in entering on so arduous a subject, we subjoin a few remarks

on some of the points which seem to bear most immediately and usefully upon it, premising that it is not our object to advance doctrines, but merely to throw out suggestions as a clue to experiment and observation,—the only true foundation for doctrine in this or any other science.

We may observe, in passing, that if those whose fertility of mind enables them to form new and ingenious conceptions would merely advance them as subjects of inquiry, instead of defending them as *theses*, and weaving them into baseless theories, they would confer a real benefit on science. All experiment implies some preliminary notion, some doubt to be resolved, or question to be decided; something, in short, to determine the course of investigation in one channel rather than another. Hypothesis in itself is good, and without it experiment could have no beginning: it is only when it usurps the place of fact and observation that it becomes an evil.

The Relation of the Nervous to the Vascular System. The obscurity of the causes which influence the action of the blood-vessels, and more especially of the capillaries, constitutes a difficulty which everywhere confronts us in the application of physiology to medicine. In all our reasonings, whether on general or local disease, it opposes an insurmountable barrier to our further progress. To this question, therefore, the attention of the physiologist should be assiduously directed; and we cannot help thinking that he might still derive very important aid from the researches of minute anatomy.

Daily observation demonstrates that the circulating system is strongly under the influence of causes which cannot be conceived to be immediately applied to it. The pulsations of the heart answer to a thousand impulses which can only be indirectly communicated; and the arteries, to their minutest ramifications, have their action increased, diminished, or altered, by causes equally remote, and which evidently do not reside in the mechanism of the vascular system, or the influence of the fluid which it circulates.

Our attention is therefore naturally directed to the nerves, as the great medium of sympathy, and the most obvious chain of communication between distant organs. Now, it is certain that the action of the blood-vessels cannot be materially under the control of the nerves of sensation and voluntary motion, because that of the heart continues after the removal of the brain and spinal marrow;* and that of the vessels of a limb remains unimpaired when both sensation and motion are

* Wilson Philip's *Experimental Inquiry*, p. 62.

destroyed by paralysis, or the division of the nerves. Again, it has been asserted, on good authority, that the fibres of the ganglionic nerves may actually be traced in the course of the principal arteries, till they become so minute as to elude the eye, affording every presumption that they still accompany the vessels to their minutest ramifications.* Supposing these observations accurate, how does the question stand? We have an organ whose function is to be assigned, and a function whose organ is to be discovered: we are all but certain, on the one hand, that local changes in the action of the minuter vessels do not arise from the mechanism of the vascular system itself, or the influence of the contained fluid on the vessels. On the other hand, if the use of the fibres of the sympathetic, interwoven with the coats of the arteries, be not to influence and regulate their actions, the utmost ingenuity cannot devise even a probable function for them. We ought therefore, by a further appeal to minute anatomy, to endeavour to ascertain whether the fibres of the sympathetic can actually be traced to the situation in which they are alleged to have been seen: if they can, there seems to be no reason why we should not adopt, with some confidence, an opinion which is corroborated by many striking phenomena of the living system, contradicted, as far as we know, by none, and whose evidence, though short of demonstration, would afford that strong degree of probability on which we are contented to reason in many other matters of at least equal importance.

Animal Temperature. This subject is obviously one of great moment in its relations to pathology. The two leading theories, that which connects the temperature of the body with respiration, and that which attributes it to the influence of the brain, have both striking, though not conclusive experiments in their favour; and the former is supported by an extensive and beautiful chain of analogies; yet we have little hesitation in stating our belief, that they ought both to be relinquished, because they are both manifestly incompatible with the facts of disease. Confront the chemical theory with the following cases related by John Hunter.

“CASE I. A gentleman lying apoplectic, whilst in bed, would become suddenly cold, and as quickly would become extremely hot; and here there was no alteration in the pulse or breathing.

“CASE II. A man lying comatose in consequence of injury to the brain, and breathing with only half his usual frequency, was yet extremely hot.

“CASE III. A boy, who appeared to be dying, breathed so slow

* Vide, in particular, Copland, Notes to Richerand, p. 556.

that twenty-three seconds elapsed between each act of breathing: the pulse was weak and very slow; the body of purple hue, the blood not passing often enough through the lungs to acquire its scarlet hue: he was very warm, though in the midst of winter, and in a room without a fire."—(*Parkinson's Hunterian Reminiscences*, p. 14.)

These cases are not solitary; instances equally subversive of Crawford's theory occur continually in the course of ordinary practice, rapid alternations of temperature being observed without any change in the respiration at all commensurate with the effect produced; and where such effect cannot be connected, with any reasonable probability, with the state of cutaneous evaporation which is supposed to modify the influence of the other chemical causes.

Brodie's theory is still more obviously at variance with pathological and other facts: thus, in cases of injury of the vertebræ, where all the parts below the seat of the injury are entirely deprived of sense and motion by the interception of their communication with the brain, the temperature of these parts often remains perfectly natural. Again, children have been born without any brain, who nevertheless evinced no defect of animal temperature. Nor has the spinal cord any better claim to be considered as the source of vital heat, since complete paralysis of the nerves derived from it is frequently unattended with any diminution of temperature in the limb to which they are distributed.

The hypothesis of Sir E. Home, which refers the generation of animal heat to the ganglionic system, is worthy of considerable attention, though very feebly supported and reasoned on by its author. (*Quarterly Journal of Science*, vol. xx.)

The opinion of John Hunter, as far as it can be collected from his writings, was, that living parts had an inherent power of regulating their own temperature according to their necessities; an opinion which may be considered by some as a sort of begging of the question, but which has some very striking facts in its favour, and is perhaps, on the whole, less at variance with the results of observation than any which has succeeded it.

The subject of animal temperature is evidently one on which we are in want of more facts; these the patient researches of the physiologist may possibly supply, while the phenomena of disease will afford a good touchstone on which to try the validity of the conclusions derived from them.

General Anatomy. Bichat's doctrine of the tissues has been hailed as the dawn of a new era in medicine; but, whatever its future utility may be, it seems to us that the influence it has hitherto exerted on that science has been greatly over-

rated; so far, indeed, from forming the basis of any very important practical views, it has given birth to little else than generalizations whose accuracy is extremely doubtful. The phrase "properties of tissue" has got into current use, without perhaps any very definite idea being attached to it; in virtue, however, of the said properties of tissue, a certain similarity has been assumed to exist between the morbid conditions of the same texture in whatsoever part of the body it may be found; but we believe it may be correctly affirmed, that any such analogy is hitherto known to hold good only when there is a perfect similarity in the functions to which the given texture ministers.

Take, for example, the serous membranes: it is true that there is a remarkable uniformity in the pathology of these membranes throughout the body; thus, inflammation presents in all the same phenomena, it has the same terminations, is attended by the same kind of constitutional symptoms, and is affected in the same manner by therapeutical agents; but it is also true, that there is an almost perfect similarity of distribution and function among these membranes; they all line shut cavities, and afford a superficial covering to important organs.

Synovial membranes, again, present a like uniformity in their morbid conditions; but here also we have the same resemblance of distribution and function. All these membranes line articular cavities, whose surface they lubricate by the secretion of a similar fluid.

Many other examples might be adduced, which all go to prove the same thing; hence all pathological reasoning founded on properties of tissue is premature, since the analogies observed are found to be universally connected with uniformity of function; and there is no proof that they would hold good independently of such uniformity: no proof, for example, that a serous membrane, if conceived to line an excretory canal instead of a shut cavity, would retain its pathological similarity to the other serous membranes.

Upon the whole, then, it appears that the only pathological inference at present deducible from the doctrine of the tissues is, that, when the healthy functions of parts are similar, the derangement of these functions in disease will also be similar; a conclusion so obvious, that we do not require the assistance of general anatomy to arrive at it; and, if this study has in any degree furthered the progress of medicine, it has been rather by affording a convenient mode of classifying morbid appearances, than by throwing any additional light on the nature or results of morbid actions.

It has moreover unfortunately happened, that the too hasty generalization of the doctrine of the tissues has led to positive errors in pathology and false principles in practice.

The origin of these errors may, indeed, be traced to Bichat himself, the author who first reduced the facts of general anatomy to a systematic form. There can be little doubt that this distinguished physiologist borrowed his first ideas on the subject without acknowledgment from Andrew Bonn's treatise, "*De Continuationibus Membranarum.*"

Bonn's views were purely anatomical, and related only to the continuity of surface in different membranous textures throughout the body. Bichat, adopting his facts, and adding to their number, observed that similarity of property frequently accompanied the continuity of surface; and hence appears to have prematurely adopted the notion that such correspondence was universal: the result was the classification of certain continuous surfaces as homogeneous textures which have in fact no right to be so considered.

Subsequent authors have not been slow in extending this error, for an instance of which we need go no further than mucous membrane, a texture very generally diffused, and of great importance in its pathological relations. The several membranes classed together under this denomination are frequently considered by medical writers as constituting a tissue which is nearly the same throughout the body; and a sufficient similarity is assumed in their diseases to be made the basis of practical precepts generally applicable to them. Now, so far is this from being the fact, that scarcely any two mucous membranes agree precisely in their external appearance, in their functions, in the influence of physical agents upon them, or in the phenomena and results of their diseased actions. Their functions are most diversified: in the stomach we find mucous membrane ministering to the secretion of a fluid different from all others; in the small intestines it forms an absorbing surface for the purposes of nutrition; in the cells of the lungs it forms a permeable web, allowing the access of the air to the blood; in the urinary bladder it lines a reservoir for containing a highly irritating fluid; in the urethra it lines an excretory canal; in the nose, mouth, and ear, it affords a surface for the distribution of the nerves of sense; and in the conjunctiva of the eye it constitutes the outward protection of a very delicate organ. Even the common secretion from which the mucous membranes derive their name is not similar in any two of them: we have, indeed, as Dr. Craigie justly observes, certain *mucous* membranes which secrete no

mucus at all,* and whose very name is consequently a solecism.

Physical agents affect different mucous membranes in different ways; cold and damp air very frequently inflames the membrane of the nose, but has no such effect on that of the mouth; urine produces no effect on the mucous surface of the bladder, but would severely irritate that of the eye.

The phenomena and terminations of diseased action are dissimilar in different membranes of this class: thus, inflammation of the membrane of the nose is not attended with pain, but with a disagreeable sensation of heat, and, if not resolved, terminates in increased secretion of mucus, or secretion of pus without solution of continuity; inflammation of the lining membrane of the mouth occasions considerable pain, and never terminates in a secretion either of mucus or pus, but frequently in ulceration.

Notwithstanding all these diversities, which plainly show that mucous membrane is not one tissue, but many tissues, we find certain general precepts confidently given for the treatment of its diseases: thus it is a current maxim with many practitioners, that inflammation of mucous membranes does not bear bleeding well. This may be true of some of them, but it is most untrue of others: common conjunctival ophthalmia, for instance, not only bears bleeding well, but requires a larger use of this remedy than inflammation of the same extent in any other membranous surface throughout the body.

We cannot pursue the details of this subject further, but we think that all attempts to adapt the doctrines of general anatomy to medicine had better be laid aside till their applicability is better established, and the mode of their application better understood. There is a subject which may be considered as a branch of general anatomy which has received little or no attention, but from which some interesting conclusions might possibly be derived. We allude to an investigation and comparison of the properties of organised textures which are produced by morbid actions.

Morbid growths, considered in the mass, have indeed been the objects of much minute description; but the different textures of which they are composed,—the relation of these textures to each other, and to the healthy tissues which they more or less resemble, have never yet been subjected to scientific analysis. Morbid anatomy, in one sense of the term, is cultivated with sufficient diligence, but it is chiefly conversant with the *products* of destructive processes,—with the *debris* of

* *Elements of General and Pathological Anatomy*, p. 660.

the fabric, rather than the causes which led to its dilapidation; and hence its use is rather to localize disease than to explain it. But disease creates as well as destroys, and a careful comparison of the various forms of morbid organization, (in other words, a general anatomy of disease,) might perhaps be brought to bear advantageously both on physiology and pathology. To give an example of our meaning: a sinus is lined by a sort of membrane bearing more resemblance to mucous membrane than to anything else; the cavity of an abscess has a somewhat similar lining. Wherein do these membranes differ from healthy mucous membranes, or from each other? Has that lining the sinus any more resemblance to the membrane of an excretory canal than that lining the abscess? Questions of this kind are always worth proposing: it is true they may generally lead to nothing, but sometimes they may afford the clue to important investigations.

Having alluded to morbid anatomy, we may perhaps be indulged in a momentary digression on this subject. Important as the study is in itself, and indefatigably as it is followed up, we think it extremely doubtful whether its operation at the present moment is to advance or retard the progress of medicine. If it were philosophically pursued, there could be no such doubt; but it is too often most unphilosophically pursued. A great number of pathologists have fallen into an error as pernicious as it is unaccountable—the disposition to couple every disease with some change of structure; which will, in reality, be found to amount to nothing more nor less than the identification of all actions with those of the vascular system. The pathologists we speak of are aware of the fact that every organ is originally constructed by vessels; that its waste is occasioned and repaired by their action; that its form, consistence, colour, all its properties manifest to the eye or touch, depend upon such action: accordingly, when they find an organ changed in any of these properties, they justly refer the change to disordered action of the vessels; and when disordered vascular action has subsisted for a certain length of time, they rationally expect an obvious change in the structure of the organ. Now, if they would be content to trace and record the ravages of different degrees and kinds of disordered vascular action, wherever they are actually to be found,—in short, if they would describe what they see, and no more, they would be philosophically and usefully employed. But they are not content with this: they insist on change of structure as the necessary consequence of diseased actions, in which there is no reason to believe that vessels are immediately concerned. Thus, where there has been derangement of

the intellectual functions, they must needs have induration, or softening, or other apparent change, in the structure of the brain;—if the sensibility of an organ has been for some time morbidly increased, they hold it impossible but that its texture must be changed; forgetting that there is no reason to suppose that the action of the vessels has any immediate connexion with the functions in question, that vascular action may be one thing, and nervous action another. A disease, say they, which cannot be seen, is no disease at all; and, if they cannot see what they want by the ordinary exercise of vision, they avail themselves of the grandest of all microscopes, a favourite notion; and thus, while professing to accumulate facts, they are merely torturing nature into a conformity with preconceived views, and justifying the saying, that there are in medicine more false facts than false theories. In consequence of this stupid error, (for such we really must call it,) many industrious persons are expending years of labour in seeking for what they will never find, or imagining what they cannot see.

The Origin of Diseases. The animal frame is evidently destined to pass through the successive periods of growth, maturity, and decay, and its organization is prospectively adapted to this course; so that, setting aside the influence of extraneous causes, there would be nothing to occasion a deviation from this natural progress, and the individual would live free of disease, and die when his organism was worn out, as is frequently observed to be the case in savages, and occasionally in civilised men. In a healthy animal body, then, we must seek for the origin of disease in the influence of extraneous agents, and among these our chief attention is naturally directed to such as are known to be most constant and most influential in their operation. But, again, it is obvious that only certain parts of the frame are immediately exposed to the action of these causes: the surface of the alimentary canal is liable to be irritated by unwholesome ingesta; the external surface of the body is exposed to the continual vicissitudes of heat and cold, dryness and moisture, and acted on, more or less, by all the physical changes of the atmosphere; many other parts, however, are not so exposed; no external agent, for instance, is immediately applied to the substance of the heart, none to the texture of the peritoneum; yet these parts become the seat of a variety of diseased actions. Is it not probable, then, that the origin of a great number of diseases is to be sought for in sympathy; the morbid cause acting immediately on the part to which it is applied, and affecting remote parts which consent with it according to laws

which are most likely invariable, though hitherto undetermined? What a vast variety of remote diseases are known to originate in the stomach and intestinal canal, and what an impulse has the knowledge of this fact given to the theory and practice of medicine! May there not be a number of analogous facts equally important and equally applicable; and may we not, at this moment, be erroneously referring many diseased actions to sympathy with the digestive organs, which are in reality to be attributed to sympathy with other organs not less exposed to noxious agents, and exerting no less powerful and extensive an influence on the system at large? A patient, for example, complains of general languor, debility, and depression; he is somewhat emaciated; his complexion is sallow, and his appearance haggard; and all this without any local pain, or febrile affection of the system. We might at first be inclined to refer his symptoms to derangement of the digestive organs; but what if the tongue be clean, the appetite sufficiently good, the bowels regular, and the alvine excretions natural? We must seek for some other cause, and we may perhaps find it in a chronic affection of the bronchial membrane, indicated by an increased secretion, causing a degree of mucous rattle; and somewhat impaired respiration, without any evidence of disease of the pulmonary tissue. We are not imagining a case, but describing one of frequent occurrence. Now that such affection often arises from the local action of atmospheric causes on the bronchial membrane, is rendered probable by the fact that many persons are almost constantly subject to it in some localities, and perfectly free from it in others, their diet, habits, and other circumstances, remaining the same.

Again, a disturbed state of the general functions of the system may often be apparently traced to a dry and imper-spirable state of the skin, which may originate from causes acting locally upon it, since the symptoms are sometimes most effectually relieved by remedies acting directly on the surface, as tepid bathing and friction. In applying this view of the origin of diseases, we should attend to the various organs which, from their situation, or relations to external agents, are most liable to injurious impressions: it should also be kept in mind, that some symptoms may arise from the sympathies between the exposed organs and distant parts, and others from the derangement of important functions exercised by such organs. We may adduce the following examples.

1. The whole range of the alimentary canal may be irritated by noxious ingesta; and here we have to consider not

only the sympathies of the several parts of this canal with distant organs, but the disturbance of the nutrient function which is essential to the whole system.

2. The respiratory passages may have their lining membrane affected by the qualities of the atmosphere; here we have to take into account not only the sympathies which may be exercised by these parts, but the insufficient accomplishment of those chemical changes in the blood which are necessary to the healthy functions of every organ in the body.

3. The surface of the body is exposed to the action of atmospheric and various other causes; and disease in distant parts may arise not only from sympathy with the cutaneous texture, but from the disturbance of its absorbent and exhalent functions, its influence on the capillary circulation; and, consequently, on the distribution of the blood.

4. The centres of the nervous system are continually impressed through the medium of the organs of sense, and the continuance of too intense excitement of any of these may thus become a source of disease; nay, it were easy to point out instances in which it manifestly is so.

We can by no means pretend to enumerate the various ways in which external agents may produce local impressions communicable by sympathy to distant organs; we merely propose the subject, which we think might yield some valuable results to patient and philosophical inquiry. The train of reasoning is exceedingly obvious, yet we are not aware that it has ever been followed up to any extent, or even that the conditions of the question have ever been distinctly stated.

In pursuing this subject, it would be necessary carefully to reconsider the various kinds of sympathy hitherto recognised by physiologists; to apply them where it is possible, thus extending the knowledge of their laws; and to ascertain whether there be any other kinds of sympathy which have as yet escaped observation.

Finally, it is to be remembered that, although many diseases may probably be traced to the physical causes above alluded to, there is little doubt that a host of others proceed from the operation of causes which are altogether hidden from us; which act on we know not what part, and may gain as easy access to one part as another; as contagions, of which we understand nothing but their effects, electricity, and many other things 'twixt heaven and earth, which are not dreamed of in our philosophy.

The Influence of the Mind on the healthy and diseased

Functions of the Body. This subject, though evidently one of vast extent and importance, has given rise to so little scientific investigation, that a man, in search of recorded facts connected with it, would perhaps find more to his purpose in the works of poets, painters, and sculptors, than in those of physiologists and physicians. The few works published on this subject, though creditable to their authors, and useful, as forming at least a commencement of inquiry, have been little attended to; and we believe we may affirm with truth, that the influence of the mind on the animal frame remains as an open and almost uncultivated tract, which may yield an ample recompense to those who have the boldness to enter, and the perseverance to explore it. That there are facts on this subject is obvious, that they may be capable of generalization, and afford useful inferences, is by no means impossible; at all events then it would be worth while to collect and record them.

We must however observe, that if this study is to be pursued with any prospect of success, the inquirer must divest his mind of a very gratuitous hypothesis, which has become so generally prevalent as to be regarded by many as a simple matter of fact; namely, that we are actually acquainted with the seat and organ of the mind. The ancients believed the heart to be the seat of the moral feelings, and the liver of the passions, conceits at which we now laugh; but, in assuming the brain to be the organ of the intellectual faculties, or that these faculties have any organ at all, we may, peradventure, be indulging in a conceit altogether as airy. A mind of philosophical training will not easily admit the truth of a doctrine which involves an utter incongruity between the cause and the effect; which attributes to the brain, a *material* organ, the production of thought, an *immaterial* result. All material operations, which we know to be such, whether the matter engaged in them be inert or organised, produce a result some way or other relating to matter: mechanical operations produce motion, by which matter is made to change its position; chemical operations produce changes in the sensible properties of bodies; the operations of organised matter also produce material results; muscular action causes motion, which may be measured like any other kind of motion; the action of the liver produces bile, which is a fluid, and has chemical and mechanical properties like all other fluids. But what are the products of the mind's operations?—ideas, various modes of thought and feeling. Now we should be glad to know what properties these have in common with matter; what is the colour of a recollection; what the specific gravity

of a doubt; what the chemical properties of a wish? It is evident that there is not a single property in which any one mental product resembles any one material product.

Surely, then, it is absurd to attribute to a material organ results which have nothing in common with matter;—as absurd to suppose that the brain can produce thought, as that we could produce a brain by thinking of one; the absurdity in either instance consisting in an entire incongruity and want of relation between the cause and effect. The absurdity is the same as if one were to talk of producing sounds by adding numbers together: the two things have nothing whatever to do with each other.

We admit, however, that all this is but matter of opinion; not hesitating, at the same time, to state our own, that the doctrine of the brain's thinking is flat nonsense. All we contend for is, that a mere assumption, resting on no kind of proof, should not be allowed to influence a science, whose only legitimate foundation is in observation and experiment.

There are various other physiological subjects which have very important relations to pathology, as the influence of the several periods of development in the aggravation or correction of pre-existent diseases, and the production of new ones; the effects of the periodical changes which are observed to take place in the animal economy; morbid diatheses; hereditary predispositions to disease; and many additional topics, on which it would be much easier to exhaust the patience of the reader than to say anything at all to the purpose. The consideration of the action of remedies also forms an important part of the application of physiology to medicine; but, as all that can be said on this subject is comparatively familiar, we shall not further protract this article, over which it is more than probable that the gentle reader has already fallen asleep.

A New Synopsis of Nosology, founded on the Principles of Pathological Anatomy, and of the Natural Affinities of Diseases. By G. HUME WEATHERHEAD, M.D.—London, 1834. 18mo. pp. 90, and xxix.

DR. WEATHERHEAD says, in his introductory remarks,

“The author has found that he has been able, by following the natural affinities, to classify all the diseases resulting from the derangements proper to the body, spontaneous and incidental, under four principal heads. These form his classes: namely, the Phlogotici, or pure inflammatory diseases; the Hæmapharmatici, or those diseases which originate from a miasm, or poison, entering the healthy blood, and tainting it; thirdly, the Neurotici, which

comprehend all those diseases arising from affections of the nervous system, unaccompanied by any apparent structural disorganization; while the last class, or the *Vitia*, comprises all accidental disfigurements, new morbid formations, extraneous lodgments, and congenital malformations." (P. xvii.)

Now, if for this barbarous term, *Hæmapharmatici*, we substitute *Cachexiæ*, and say *Locales* instead of *Vitia*, we shall have Cullen's four classes, which we prefer with the original names. In the various subdivisions our author is so much indebted to Dr. Young, that we could have wished to see some acknowledgment of his obligations. Surely there is a strong resemblance between the following species of *Vulnus*, as given by the two writers:

"*Vulnus* (a wound). *α*. Simplex. *β*. Laceratum. *γ*. Puncturatum. *δ*. Penetrans. *ε*. Contusum. *ζ*. Venenatum." (P. 73.)

"*V. simplex. V. penetrans. V. laceratum. V. contusum. V. ablatitium. V. venenatum.*" (*Young's Medical Literature*, p. 407, 2d edit.)

Dr. Weatherhead does not follow the ancients in the genders of his words: thus, at p. 74, he makes *ulcus* masculine, and, at p. 82, *pes* feminine; but, at p. 81, this bold innovator ventures on a still more violent infringement of the *propria quæ maribus*, and actually makes *penis* feminine! Then, at p. 81, we have a mistake of the kind for which boys get their ears boxed at all well-conducted schools: *cor expers* is used to signify "heart wanting," *vesica expers* a "deficiency of the bladder," and so on. At p. 22, Dr. Weatherhead says, that *phrenitis* "is obviously a very improper name for any disease; since, according to the pathological meaning now attached to *itis*, it signifies *inflammation of the mind*." Poh! poh! *Phrenitis* signifies inflammation of the brain, and is one of the best names we have; for it is not one of the rickety, make-believe Greek words, manufactured by dictionary-hunters, but a genuine long-lived term, as old as the hills, and likely to last as long.

Yet we would not have our readers suppose that our author, though unskilled in verbal niceties, is altogether deficient in ingenuity; far from it. We approve, too, of his giving after each disease the usual sequelæ; and the following passage may show that, if Dr. Weatherhead will give up the arid study of nomenclature, in which he is far from happy, he may be infinitely more successful in other branches of medical knowledge.

"The pathology of jaundice, as at present laid down in books, is that it arises from the reabsorption into the circulation of bile

that had already been separated from the blood, from an impediment existing somewhere to the transit of this fluid into the duodenum. Now, without insisting on the prodigious quantity of bile that would be required to tinge yellow so large a mass of an already deeply coloured fluid as the blood, it may be allowed us, in this place, to refer to the experiment of M. Magendie, who, when he injected only about two drachms of bile into the veins of an animal of the middle size, caused its death. Again, it may be asked, how comes it so frequently that jaundice shall occur, and yet no impediment to the free issue and discharge of the bile shall be found to have existed? Another circumstance deserving of recollection is, that bile is often seen to be separated in abundance from the blood by the kidneys, for several days *before* any jaundiced yellowness is perceptible even in the conjunctiva. And the last fact I shall notice, subversive of the doctrine of reabsorption, or of the necessity for it at all, is, that the experiments of Orfila, Chevreul, and Clarion, have established, that several of the immediate principles of bile, if not bile itself, exist naturally in the blood; and hence it would appear, that the office of the liver in separating this fluid from the circulation is not formative, but secretory, in the most literal meaning of the word.

“Premising these few remarks, we now can see why and in what manner jaundice may be produced, without having recourse to the improbable doctrine of reabsorption, against which a strong array of other circumstances militates. The liver ceasing its function of separation from any cause, the bile, or its immediate principles, thus accumulate in the blood; and, when this takes place, the author conceives several vicarious actions are instituted as suppletories: the kidneys are made to strain off a large quantity of it; cases are on record where the salivary glands have secreted it in abundance; and the yellowness of the skin, he conceives, is entirely owing to the same suppletory function being instituted by the exhalants that open on the surface of the body: hence we not unfrequently see the body-linen of a jaundiced patient tinged yellow.” (P. 67.)

Hortus Medicus; or, Figures and Descriptions of the more important Plants used in Medicine, or possessed of Poisonous Qualities; with their Medical Properties, Chemical Analysis, &c. &c. By GEORGE GRAVES, F.L.S. &c., and JOHN DAVIS MORRIS, M.D. &c.—Edinburgh and London, 1834. 4to. pp. 274; thirty-eight coloured Plates.

THE figures of this work are beautiful, both in drawing and colouring; and the volume, on the whole, has a very prepossessing appearance. Hence we anticipated, on commencing its perusal, that our task would be one of unmixed praise. But, alas! human works, like human lives, are webs of mingled yarn; and, notwithstanding our prepossessions in its

favour, we have been disappointed with the *Hortus Medicus*, because it has failed to realize those expectations which its titlepage and preface allowed, nay, led us to indulge.

The *Hortus Medicus* is declared to contain "*figures and descriptions of the more important plants used in medicine or possessed of poisonous qualities;*" and the preface informs us that "the expensive forms and extent of the modern works on Medical Botany induced the authors to attempt the present publication, in which such plants only are introduced as are in present use by British practitioners, or, from being endued with poisonous qualities, are likely to call for the attention of medical men, to remedy or alleviate their effects."

This all sounds very fairly, and the scheme is plausible. Looking at the voluminous medical Floras of Germany, and even those of our own country, (perhaps in some respects too prolix,) we should commend the publisher who would select "the more important plants used in medicine" from those of less value, or which have ceased to be employed, and give in their stead figures and descriptions of such as are "possessed of poisonous qualities." But then we should expect to have figures of *all* the more important medical plants, especially of those that are rare and *most* important; and the chief of the poisonous species, particularly the indigenous ones, should be also given. The want of this offends us in the *Hortus Medicus*; for, although between 180 and 200 species are mentioned, which, from their being selected and described, we presume have been considered as the more important and poisonous species, yet of these less than fifty are figured; so that the volume, instead of being a "*Hortus Medicus*," in the proper sense of the words, is rather "a compilation on materia medica, with figures of a few of the plants employed in medicine, or known as poisons."

In the next place, we come to consider the principles of the selection; and, when so few plants are figured, we of course expect they should be the *more*, if not the *most* important. Here, again, we are disappointed; for certainly *Papaver somniferum* is a more important officinal plant than *Papaver Rhæas*, and yet the latter is figured, and the former not. Again, why should the burdock (*Arctium Lappa*), and the buck-bean (*Menyanthes trifoliata*), and others of equal non-importance, have each of them a whole plate dedicated to their representation, while the *Laurels* (cassia, cinnamon, and camphor,) the *Peppers*, the *Tobacco*, the *Jalap*, the *Scammony*, the *Saffron*, *Ginger*, *Cardamom*, *Ipecacuan*, *Capsicum*, *Calomba*, *Cascarilla*, *Aloe*, *Rhubarb*, *Squill*,

Gamboge, Gentian, Hop, Nutmeg, Clove, Allspice, Ricinus, Smilax, Croton Tiglium, and Eleutheria, &c. are omitted. We have every proper respect for the *Dandelion*, but we had rather have had figures of the different species of *Cinchona*, showing their leaves and flowers. We do not mean to detract aught from the importance of *Linum catharticum*, but we think it might well have given place to the *Senna*. Doubtless the *Bistort* and the *Mezereon* should have been figured; but then the whole of the *Pines* and the *Acacias* should not have been left out. It may have been very right to give representations of the common mallow (*Malva sylvestris*), and the black and white *Mustards*, with the broom (*Cytisus scoparius*), and two species of *Sium*, or water parsnep; but surely they are not more important plants as medicines, nor more fatal ones as poisons, than the white hellebore (*Veratrum album*), the hedge hyssop (*Gratiola officinalis*), the wolf-bane (*Arnica montana*), the cajeput (*Melaleuca Cajeputi*), the serpentary (*Serpentaria Virginica*), the willow (*Salix Russelliana* or *Capræa*), the poison ash (*Rhus Toxicodendron*), the nux vomica (*Strychnos*), and others too numerous to catalogue.

One reason alone suggests itself to us for this arbitrary selection, in which we should say many of the *more* important plants are left unfigured, viz. that those were sketched which came readiest to hand, and which, of course, from being the most familiar and best known, would the least be wanted for the instruction of the student: for, what other cause can account for a figure being given of the *Bryony*, while both the *Elaterium* and the *Colocynth* are omitted?

We say no more upon the head of omissions; but, unpleasant as is the task of finding fault with a work in some parts excellent, still it is a duty we owe to the public not to let vessels sail on the literary seas under false colours; and if, in an appendix, which might form a second volume, the author will supply the defects of the present one, we shall then cordially recommend his work to the student; although, if rendered as copious in illustrations as the other medical Floras to which he alludes, we doubt whether it would be much inferior to them in cost.

In fine, notwithstanding the above named serious omissions the volume is valuable, for the plates already given are beautiful, both as representations of nature and works of art; and the medical and chemical notes are creditable to the compiler.

The Principles of Physiology applied to the Preservation of Health, and to the Improvement of Physical and Mental Education. By ANDREW COMBE, M.D., Fellow of the Royal College of Physicians of Edinburgh.—Edinburgh, 1834. 8vo. pp. 320.

THIS treatise is upon the whole sensibly written, and, though not altogether free from what might be termed physiological pedantry, is well adapted for non-professional readers. The common fault of hygienic works is their intolerable rigour,—their prophylactic puritanism. A man who lived according to their fantastic notions might immediately be known not to belong to our profession, from his horror of mushrooms, raw water, and sitting on the grass; just as Theophrastus was known to be a foreigner by the Athenian herbwoman, from the very excess of his Atticisms. Dr. Combe, however, does not fall into this error, and is tolerant as long as toleration is a virtue. The following strictures on stays and other absurdities are very judicious, and should be thundered into the ears of schoolmistresses till reform was forced upon them. Every school has its medical attendant, and how is it that these simple truths are unknown? When the doctor is called in to cobble a crooked spine, why does he not tell how crooked spines are manufactured? Is it from gross ignorance, criminal apathy, or mean subservience?

“To an unreflecting person it may seem a very easy and pleasant service to stand for half a day in the attitude of an Apollo or a Gladiator, as a model to a statuary; but, on trying it, he will find, to his astonishment, that stone-breaking or the tread-mill are pastimes in comparison: in the one case, the muscles which preserve the attitude are kept incessantly on the strain; while, in the other, they enjoy that play and variety of motion for which they were destined by nature. We may easily put the fact to the test, by attempting to hold the arm extended at right angles to the body for the short space of ten minutes. He whose muscles, if indeed capable of the exertion, do not feel sore with fatigue at the end of that time, may think himself peculiarly fortunate in being blessed with a powerful constitution.

“The principle just stated explains very obviously the weariness, debility, and injury to health, which invariably follow forced confinement to one position or to one limited variety of movement, as is often witnessed in the education of young females. Alternate contraction and relaxation, or, in other words, exercise of the muscles which support the trunk of the body, are the only means which, according to the Creator’s laws, are conducive to muscular development, and by which bodily strength and vigour can be secured. Instead of promoting such exercise, however, the prevailing

system of female education places the muscles of the trunk, in particular, under the worst possible circumstances, and renders their exercise nearly impossible. Left to its own weight, the body would fall to the ground, in obedience to the ordinary law of gravitation; in sitting and standing, therefore, as well as in walking, the position is preserved only by active muscular exertion. But if we confine ourselves to one attitude, such as that of sitting erect upon a chair, or, what is still worse, on benches without backs, as is the common practice in schools, it is obvious that we place the muscles which support the spine and trunk in the very disadvantageous position of permanent instead of alternate contraction; which we have seen to be in reality more fatiguing and debilitating to them than severe labour. Girls thus restrained daily for many successive hours invariably suffer, being deprived of the sports and exercise after school-hours which strengthen the muscles of boys, and enable them to withstand the oppression. The muscles being thus enfeebled, they either lean over insensibly to one side, and thus contract curvature of the spine; or, their weakness being perceived, they are forthwith cased in stiffer and stronger stays, that support being sought for in steel and whalebone which Nature intended they should obtain from the bones and muscles of their own bodies. The patient finding the maintenance of an erect carriage (the grand object for which all the suffering is inflicted,) thus rendered more easy, at first welcomes the stays, and, like her teacher, fancies them highly useful. Speedily, however, their effects shew them to be the reverse of beneficial. The same want of varied motion, which was the prime cause of the muscular weakness, is still farther aggravated by the tight pressure of the stays interrupting the play of the muscles, and rendering them in a few months more powerless than ever. In spite, however, of the weariness and mischief which result from it, the same system is persevered in; and, during the short time allotted to that nominal exercise, the formal walk, the body is left almost as motionless as before, and only the legs are called into activity. The natural consequences of this treatment are, debility of the body, curvature of the spine, impaired digestion, and, from the diminished tone of all the animal and vital functions, general ill health: and yet, while we thus set Nature and her laws at defiance, we presume to express surprise at the prevalence of female deformity and disease!

“ It would be easy, were it required, to prove that the picture here drawn is not overcharged. A single instance, from a note appended by Dr. Forbes to an excellent treatise on Physical Education, by Dr. Barlow, of Bath, will suffice. After copying the programme of a boarding-school for young ladies, which exhibits only one hour’s exercise, consisting of a walk, arm-in-arm, on the high road, and that only when the weather is fine at the particular hour allotted to it, in contrast with nine hours at school or tasks, and three and a half at optional studies or work, Dr. Forbes adds: ‘ That the practical results of such an astounding regimen

are by no means overdrawn in the preceding pages, is sufficiently evinced by the following fact, a fact which, we will venture to say, may be verified by inspection of thousands of boarding-schools in this country. We lately visited, in a large town, a boarding-school containing forty girls; and we learnt on close and accurate inquiry, that there was not one of the girls who had been at the school two years, (and the majority had been as long,) that were not more or less crooked! Our patient was in this predicament; and we could perceive (what all may perceive who meet that most melancholy of all processions, a boarding-school of young ladies in their walk,) that all her companions were pallid, sallow, and listless. We can assert, on the same authority of personal observation, and on an extensive scale, that scarcely a single girl (more especially of the middle classes,) that has been at a boarding-school for two or three years, returns home with unimpaired health; and for the truth of the assertion we may appeal to every candid father whose daughters have been placed in this situation.'"* (P. 109.)

The Gardener's Dictionary, &c. By PHILIP MILLER, F.R.S. &c.
A new Edition.—London, 1833 and 4. 8vo. Nos. 1—5.

ALAS, poor Philip Miller! Heaven save thee from thy friends! How much cause hast thou to bewail the indiscretions of thy editors. Martyn encumbered thee with ancient lore, and with too much learning made thy useful pleasant tome distasteful and unwieldy. Don has kept thy name as his foundation, but the superstructure is not thine,—thou wouldst not know it; and now two other adventurers have set sail in thy fair bark. As yet, they have scarcely launched out from the shore; what will be the fate of their adventures is in the womb of time; but, as the freight, in part, consists of unacknowledged transcripts, page after page, of the *Saturday Magazine*, we do not augur well of the rest of the cargo.

If the articles alluded to, viz. those on the *Age of Trees*, were worth embodying in the work, an acknowledgment should have been made, even when taken from a penny magazine; but column after column of letterpress, besides figures, are introduced, without even the commas of quotation.

This book is the chronological miracle already mentioned in our *Journal*: a number appears but once a month, yet fifty will be published within a year.

* "Cyclopædia of Practical Medicine, article *Physical Education*; Vol. i. page 693."

Observations on the present System of Medical Education, with a View to Medical Reform. By A LICENTIATE OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.—London, 1834. 8vo. pp. 95.

WERE it our object or duty to amuse our readers, we should make very large extracts from this pamphlet; for it is eminently smart and clever, and not to be laid down again till read through: but, in a Journal like this, consecrated to practical information and stern utility, such a thing is not to be thought of, and we must therefore content ourselves with a couple of short quotations.

“*The Hospital Student.* The short period between the termination of the apprenticeship and the commencement of the hospital career is spent at home, where the young doctor contrives, as much as possible, to convince the natives of the progress he has made in his studies. This is not so difficult a matter with the medical as with most other professions. People can judge of the manual dexterity of a lad, or even of his general mental endowments, but no one can say whether he will be a good or bad doctor.

“The suppositions are, however, in favour of the young student of medicine (for he has dropped the name of apprentice,) from the good testimonials he produces, and his opinion upon a dropsical female, who had been operated upon eight times with success, established his reputation.

“He was decidedly of opinion, that the swelling was caused by a bulk of fluid in the abdomen, and not by pregnancy; and, as she had been tapped already eight times, she might perhaps undergo another operation without endangering her life, though, in reality, life was a thing very ill-defined. It is true, he observed, that this would make the ninth time, and much stress was laid by the ancients upon odd and even numbers, but this opinion stood not the test of modern philosophy. He recommended, in fact, another operation, but would not commit himself by specifying any particular time. It was with great diffidence he gave his opinion, but he thought the constitution might be injured by repeated tappings.

“This opinion gained him great credit, both for his modesty and learning, and his friends thought that the 100*l.* premium had not been thrown away, and his father was the more disposed to part with the money he had put aside for his hospital career, as he saw with pleasure that there was every probability of its being well employed.

“The day arrives for his departure, and, after a little sermonizing about temptations and bad company, and sacrifices, &c. the student finds himself the following day, with his pocket full of money, in Tooley-street, in the Borough. He was now his own master in a private lodging, and every comfort about him; he felt a strange sensation as he counted over the half-notes, for the precaution of

cutting them in halves had not been omitted, and he rejoined them with a wafer. He walked up and down his room, which allowed of about three strides in each direction; but it was a palace to him, it was his own, and he could ring his bell as often as he pleased. It was the 29th of September, and the lectures were to commence on the 1st of October; the following day therefore he proceeded to the hospitals, which were situated about five minutes' walk from his lodgings. He meets upon the road a young man with a catheter in his hand, turning into the gates of Guy's, and addressing him, begs he will conduct him to the office for entering to the different courses of lectures. It happened to be a dresser, a kind of non-commissioned officer, and he proceeds with him direct to the apothecary's shop. Here he saw for the first time a hospital laboratory, and he shrugged up his shoulders, when he compared it with his old master's shop. It is in reality an aristocratic establishment; and he who gets one foot into Guy's may hope in time to get both into a carriage, and himself into an apoplexy.

“ He was a little astonished at his morning's disbursement, and the more so when he found that he had taken out no tickets for surgery and anatomy, which he came to London to study. He was soon, however, directed to another office, where, upon paying another considerable sum, he became perpetual proprietor of as many courses as he pleased. He had now disbursed almost the whole of the sum with which he was supplied on leaving the paternal house. He returned to his lodgings with the best resolutions, and immediately informed his friends of the legal claims already made upon his purse. The sundries did not hitherto figure in his cash-book; all was fair and legal.

“ He had received tickets of admission to each course of lectures. These were printed in ink of various colours, with appropriate Latin mottoes; but he had so far forgotten his Latin as not to be able to construe them, and he determined upon buying a dictionary and grammar, and sticking this winter close to his classics.

“ He already regretted his former life, and the frivolous, unprofitable manner in which he passed five years of his existence. He finds himself deficient in the very elements of education, and ignorant of such things as are necessary to his comprehending any part of his medical studies. He is now obliged to go to school again, and devote a portion of that time to elementary education, which is of itself much too limited to teach him what he came to learn.” (P. 51.)

“ Will patients regret the diminution of draughts and pills, powders and electuaries, the only means at present of giving a medical man food?

“ Dr. Paris tells us of an apothecary who declared he put as many ingredients into his mixtures as he well could; for, in shooting out many arrows, it is probable that some will hit.

“ Another gave three different kinds of draughts, one to produce heat, the other to produce cold, and the third to modify the effects

of the other two. This is the nullifying system with a vengeance; but still the patient had to pay at least 4s. 6d. for what the prescriber himself confesses could be of no service.

“ I had myself an opportunity of witnessing the absurdity of the present system in nearly the first case which I attended. It was a case of confirmed enteritis: neither bleeding nor leeches had been applied, and I attended the case in consultation with the late Dr. T. The apothecary, or rather druggist, who preceded us, had sent draughts, pills, and powders, with the following directions:

“ One draught to be taken every two hours.

“ One powder every two hours.

“ One pill every two hours.

“ The stomach rejected every thing taken into it. The patient recovered by bleeding copiously from the arm, and leeches.

“ It was a case where no medicine could be taken by the mouth but with disadvantage during a certain stage of the disease; it was, consequently, a case either to starve the apothecary, or destroy the patient.

“ Does not such a system need reform? Does not society demand it? Does not the apothecary, in his own defence, call for it?

“ The fault is not always with the apothecary; the system leads to great abuses, and sometimes to unavoidable ones. Men of the highest education are found among this body, as well as men of the lowest: let them no longer be confounded together because they both live by charging time and talent upon drugs, and cease to be looked upon as mere tradesmen.

“ It is impossible to say how far such innovations may be adopted, or how they will work; but it will be our regret and mortification if they do not tend to the good of all classes of society, should they be put into execution; for I trust the time is near at hand when the satire of the old practitioner will no longer be applicable—

“ *Juvenis, tua doctrina non promittit opes;
Plebs amat remedia.*” (P. 93.)

The best part of the work (from which our first extract is taken,) consists of the history of a country apothecary's apprentice: it is, in fact, a medical novel, and ends, as novels ought to do, with the hero's wedding. The apprentice marries his master's daughter, and succeeds to a practice of 150*l.* per annum.

The defect of this book is, that it is rather too smart: there is a perpetual string of antitheses in words and thoughts from beginning to end. We confess, however, that this is not the most unpardonable of faults in our eyes: epigrammatic exuberance resembles its parent, youth, of which the experienced are wont to say, that it is a fault which mends with time; and it must be allowed, on all hands, that wit is a tincture which it is far easier to dilute than to concentrate.

The Magazine of Botany and Gardening, British and Foreign.
 Edited by JAMES RENNIE, M.A., Professor of Zoology, King's
 College. London, 1834.

THIS is one of those dishonest publications against which, notwithstanding their cheapness and occasional value, we resolutely set our face; for the injury they do to the commonwealth of science is incalculable. Like smugglers, or pirates, or the dealers in stolen goods, they offer the wares pilfered from their neighbours at a much lower price than they could be manufactured by the honest literary operative; as that which costs nothing may be sold for nought. But it behoves authors and publishers to withstand the parasites which not only feed upon their labours, but undersell them in the markets with their own goods.

In looking over several of the late numbers of the Magazine whose editor's name —graces the head of this notice, we have found scarcely anything original in them, excepting errors which have been ignorantly introduced, or negligently suffered to escape correction. If anything can exceed the assurance with which articles are filched from every side, it is the calm effrontery with which the announcements are worded, so as to lead the public to believe that the persons who have been robbed have voluntarily contributed their property. We fear that our language is suited rather to our subject than to our own pages; but we know not any terms of condemnation sufficiently severe to characterise such a system of plunder; and, although modern refinement may use a smoother name, it seems to us that illegal conveyancing does not deserve it.

Vindiciæ Medicæ; or, a Defence of the College of Physicians.
 London, 1834. 8vo. pp. 113.

A PETITION was presented last year to both houses of parliament, signed by forty-nine licentiates, who complained that they were illegally excluded from the fellowships of the College of Physicians. Now, this word *illegally* was an extravagant flourish, and must have appeared so to every one who knew that the repeated decisions of the Court of King's Bench had always been in favour of the fellows, and against the licentiates, and that the charter and byelaws were consequently sound in law. Sir George Tuthill, however, the author of the pamphlet before us, has taken the trouble to go through the allegations of the petition, and confute them one by one. This was perhaps a work of supererogation, as the flourish is allowed on all hands to have been a flourish; yet

it is not to be regretted, as it has made the charter, and the construction put upon it by the judges, more easy of access to many readers.

A far more difficult question remains, not as to what is, but what ought to be the law? We confess that we are not among those who would cite the existence of an institution in the days of Henry the Eighth as a sufficient authority for its existence now; and therefore, if the College of Physicians had nothing but acts of parliament on its side, our advice would be simply to repeal the Acts. It is our opinion, however, that the College is upon the whole a well-regulated and praiseworthy body. It does not persecute—that is, prosecute, (for, in the case of medical corporations, we hold these to be synonymous terms,) and of late years it has shown a reasonable facility in elevating distinguished licentiates to the rank of fellow. We should have no objection to see this facility slightly increased, and we have little doubt that it will be so: indeed, it seems to us much more likely that errors will be committed in granting than in refusing; and it would appear, from the following passage, that the College is about to concede more than any moderate licentiate could require. Surely the titular *alumni* of Aberdeen and Erlangen do not insist on the exclusion of the genuine graduates of real universities?

“The College of Physicians pretends to no exemption from the imperfections of civil institutions; but is fully sensible that as all laws and ordinances ought to be framed in accordance with the spirit and genius of the time and country in which they are enacted, so it is perfectly just that they be modified by the genius and spirit of succeeding ages. If the conditions of our social relations be now very different from those which existed at the beginning of the sixteenth century, it may fairly be presumed that some changes will be requisite to adapt institutions then first called into existence, to the intellectual necessities of the present day. But there is an immeasurable distance between adaptation and subversion. And although it be utterly impossible for error to acquire any title to respect by reason of its antiquity, it is a safe precept to proceed very cautiously in changing what the collected wisdom of past ages may have established or sanctioned. Alteration and improvement are by no means synonymous: and it is so much easier to condemn than to reform, that it is a virtue of old institutions to be slow in their decisions, lest future experience should unhappily demonstrate that they had mistaken change for amendment. The College of Physicians has proceeded, and is proceeding, with a revision of its laws, which, it may be confidently predicted, will be productive of two important modifications: a restriction upon the admission of graduates of the English Universities to the Fellowship of the

College, and a greater facility for the election of licentiates; for it is the unanimous voice of the College, that every licentiate, educated as a physician, who may become honorably distinguished by professional eminence, or whose labours may have led to useful discoveries in medical science, should be invited to the Fellowship; but the College will never concede to a threatening adversary one single privilege which it is bound, as a national establishment, to withhold." (P. 111.)

Medica Sacra; or, Short Expositions of the most important Diseases mentioned in the Sacred Writings. By THOMAS SHAPTER, M.D., Physician to the Exeter Dispensary and Lying-in Charity, &c.—London, 1834. Small 8vo. pp. 191.

DR. SHAPTER anticipates that

"some may say, that whilst there exists a work under the same title as this small production of mine, with the important prefix of Dr. Mead's highly and justly esteemed name, another was superfluous: sufficient apology, however, on this score may be offered; for independently of my dissent from many of the views of Dr. Mead on the diseases under discussion, it must be borne in mind, that the *Medica Sacra* of this learned physician was published in Latin, and that its preface contains the following anathema against those sufficiently bold to translate it.

"Βεβηλοῖς autem hæc non scripsi; sed iis tantum, qui aut sacris theologiosis, aut medicis, initiati sint et eruditi. Eâque de causâ Latino potissimum sermone in lucem edere placuit; quem per multa jam sæcula docti homines ad ea inter se communicanda, quæ aut nova, aut præter vulgarem opinionem dicta viderentur, ubique fere adhibuerunt. Si quis igitur libri hujusce Anglicam versionem suscipiat, non tantum, me invito, id se facturum sciat; sed etiam contra jus illud æquabile, quo de re sua, prout libeat, statuere unicuique conceditur.'" (*Pref.*, p. vi.)

In this passage our author seems to suppose that there is no translation of Mead's *Medica Sacra*, whereas it is to be found in the English edition of his works, printed in 1762, in one lusty quarto. If Dr. Shapter has not seen this translation, his little work affords an example of one of the most curious literary coincidences on record; for, at p. 186, in quoting Mead's opinion of Hezekiah's case, he uses the same words (*verbatim et literatim*) that were used by the former English translator, (p. 602, ed. 1762.)

This work is not discreditable to Dr. Shapter, for it shows liberal principles and some research; yet, were it not inconsistent with the liberty of our medical republic, we could wish that all physicians were prohibited from wandering into these by-paths, until they had worked on the high-roads of medicine. When a man can say, as Mead does in his preface,

“my declining years having in a great measure released me from those medical fatigues in which, for the public good, (at least as I hope,) I have been employed about fifty years,” &c., we would willingly allow that he should pass his learned leisure as he pleased, like a gladiator *rude donatus*. Unfortunately, however, the medical press groans under books which have little more tendency to improve the diagnosis or the treatment of disease, than the novels of Smollett, or the poetry of Akenside.

Illustrations of the Elementary Forms of Disease. By ROBERT CARSWELL, M.D., Professor of Pathological Anatomy in the University of London, &c. Fasciculus V. *Softening*.—London, 1834.

THIS fasciculus is not inferior to the preceding ones, and those who have seen any one of them will immediately allow that panegyric can go no higher. Dr. Carswell's investigations are still characterized by the same spirit of impartiality, and his plates continue to have the same correctness of drawing, and the same exquisite beauty of colouring. His observations on the erosions of the stomach after death by the gastric juice, which have so frequently been mistaken by the French pathologists for the effects of disease, are extremely judicious and convincing; but it is not necessary to quote them here, as we gave a summary of his opinions on this point in our last Number, in the review of the Cyclopædia of Medicine.

In speaking of inflammatory softening of the cellular tissue, our author says,

“Muscular tissue is also easily torn or separated into shreds, in consequence of softening of the interstitial cellular tissue by which its fibres are united. This is often observed in the muscles of voluntary motion, and sometimes in the heart. The easy separation of the serous and mucous membranes is always the consequence of inflammatory softening of their connecting cellular tissue, and the degree of facility with which their separation is effected, affords a ready means of estimating the degree and extent of the inflammation to which this tissue had been subjected. Cases of peritonitis and meningitis occur which would escape our *post-mortem* researches but for this state of softening of the cellular tissue. In such cases there may be little or no increase of vascularity; and perhaps only a slight serous effusion, which may be overlooked, or, if observed, can afford no idea of the degree and extent of this morbid condition of the cellular tissue. Both are readily ascertained in peritonitis, by making a circular incision of the peritoneum, and then pulling the intestine in a longitudinal direction. The intestine is thus as it

were unsheathed, by the gradual separation of its muscular coat from the peritoneum. In meningitis the blood-vessels are separated from the pia mater in a similar manner."

When these splendid illustrations are completed, they will not merely be indispensable to every medical library, but ought to be found in those magnificent collections of books, where the more opulent patrons of knowledge delight to bring together all the works most conspicuous for their merit, in each department of art, science, and literature.

The Cyclopædia of Practical Surgery. By WILLIAM BLOXAM, Esq., M.R.C.S. Revised by CHARLES MILLARD, Esq., M.R.C.S. Fasciculi I—IV.—London, 1834. Folio.

THE four fasciculi before us belong to Division I. "On the Surgical Anatomy of the Arteries." The first fasciculus contains a dissection of the arteries, veins, and nerves of the head and neck; the second, a dissection of the subclavian and axillary arteries; the third, the operative surgery of the carotid and subclavian arteries; and the fourth, the dissection of the arteries, veins, and nerves of the upper extremity. The drawings are made by Mr. Cane, curator to the museum of King's College, and are exceedingly well done. The plates are lithographic, and partly coloured, so as to give them the greatest possible distinctness.

We consider it our duty, as honest reviewers, again and again to caution our readers against buying books in fasciculi, numbers, or by whatever other name the useless fragments may be known. Wait at least till some great portion of the book is finished, which may form an instructive whole. In the present case the first portion will be completed in about twelve monthly parts, and we therefore counsel our readers to bridle their impatience, and buy Division I. in December.

The Anatomy and Operative Surgery of Inguinal and Femoral Hernia. By VALENTINE FLOOD, A.M., M.D., &c. Illustrated by eight Folio Plates.—London, 1834.

THESE plates are of neat, but by no means of brilliant execution: they are however clear and distinct, and will serve the purposes of the student. It is with a feeling akin to regret we perceive that the violent spirit of competition, which is the canker of our profession,—which makes gratuitous offices sought for with breathless eagerness, and threatens to reduce medical remuneration to the level of the wages of a

day-labourer, seems to pervade even medical literature. Mr. Guthrie, Mr. Bloxam, Mr. Tuson, and Dr. Flood, have all, within a few months, published plates intended to lessen the difficulties of the operation for strangulated hernia; yet the author says "there is still a great deficiency of plates illustrating operative surgery."

Dr. Flood intends to illustrate all the capital operations in surgery in a similar manner; so does Mr. Bloxam, to say nothing of Bourgery. We trust that they may all prosper; but they must recollect that, when so many rivals are in the field, nothing but the most finished excellence can obtain attention, far less success.

Pharmacopœia Homœopathica. Edidit T. F. QUIN, M.D., Medicus Ordinarius Leopoldi Primi Regis Belgarum, &c.—Londini, M.DCCC.XXXIV. 8vo. pp. 165.

WE recollect a remarkably instructive case in Dr. Paris's Treatise on Diet, which is quite apropos to the doctrine of Homœopathy. A clerk was in the habit of remaining at his office from nine to five, and then taking exercise for two hours, without refreshment. So long a fast, and so much work, had debilitated, and almost destroyed his digestive powers, and he sought the advice of the excellent physician just mentioned. Dr. Paris, after having administered medicine without benefit, made more particular inquiry into his patient's habits, and ordered him to take a lunch with him to his office. He did so, and got well. Now, no rational person can doubt that he would also have got well had he taken the tincture of belladonna, or of aconite, in the dose of "glob. ij. vel iij. trigesimæ attenuationis;" or that Homœopathy depends for its fame on the fact, that in chronic, or, as Hahnemann pleasantly calls them, *psoric* diseases, we have few or no specifics; and that the dietetic doctor will patch up more shattered constitutions than he who puts his trust in blue-pill and gentian.

Dr. Quin writes in the gravest of all languages, and, though we cannot compliment him on his Latinity, his gravity is really enviable. Far from ever allowing a nascent smile to betray the fact that what he is talking about is fudge, he keeps up the stern composure of a comic actor, who does not join in the laughter which he excites. He prepares his tinctures and powders, his ghosts of departed medicines, with the wholesome earnestness of a child building card-houses: indeed this is carried almost too far: for, as Montaigne tells us, that the sports of children are not to them sports, but are to be judged in them as their most serious actions, so one might be tempted

to think that Dr. Quin had taken himself in, and would really treat cases in which physic might be of advantage, with his imaginary quantities, his medicinal differentials.

We will now indulge our readers with one of the formulæ of this most humorous Pharmacopœia.

ACONITUM NAPELLUS L.

Triginta attenuationes (X).

“ Floret mensibus Julio et Augusto, quo tempore colligenda est.

“ Succum e recente herba expressum cum pari quantitate Spiritus Vini misce, et viginti quatuor horis præterlapsis liquorem limpium et clarum defunde.

“ Unam hujus guttam cum nonaginta novem guttis Spiritus Vini bis agita, et signo (1) inscribe. Deinde attenua ad dilutionem trigesimam.

Dosis:—Glob. ij. vel iij. vigesimæ quartæ in morbis chronicis, in acutis vero tricesimæ attenuationis.

“ Duratio:—Per duodequingenta horas.

“ Antid.—Acida plantarum vel Vinum.” (P. 36.)

The juice of aconite is to be mixed with an equal quantity of spirit of wine; one drop of the mixture is then to be diluted with ninety-nine drops of spirit, constituting the first attenuation; one drop of this again is to be diluted with ninety-nine drops of spirit, and this constitutes the second attenuation, and so on. A drop of the last mixture will have only $(1,000,000)^{10}$ th of the strength of a drop of the original compound of juice and spirit. In chronic diseases we may be so bold as to use the medicine only twenty-four times attenuated; in which state, however, it does not seem to us likely to produce very severe symptoms of narcotism; but we must not suppose that a whole drop is to be given for a dose: such rashness would make every hair stand erect on homœopathic heads. No; the words glob. ij. vel iij. refer to a much nicer subdivision. People often talk of a drop in the ocean; but in homœopathic practice, we learn to see an ocean in a drop. It is only in very few diseases, and to very stout men, says Dr. Quin, that a whole drop, or even half a drop, of any remedy can be given as a dose, and we are therefore to get the “globuli minimi” made of sugar and starch by the pastrycooks, of which about two hundred weigh a grain, and soaking these in the required tincture, we are to keep them for use. What these “globuli minimi” may be, we know not; our first guess was *sugar-plums*; but, though we have all eaten and given away sugar-plums (even reviewers do sometimes,) we never saw any weighing only the $\frac{1}{200}$ th of a grain. The notation by which the degree of attenuation is indicated is ingenious enough.

1 signifies the first attenuation, and shows that the mixture denoted by it has, in a hundred drops, but one drop of the original compound of juice and spirit;

2 signifies the second attenuation, and shows that the mixture denoted by it has, in ten thousand drops, but one drop of the original compound;

I (the Roman numeral) signifies the third attenuation, and shows that the mixture denoted by it has, in a million drops, but one drop of the original compound;

II (the Roman numeral) signifies the sixth attenuation, and shows that the mixture denoted by it has, in a billion (1,000,000,000,000) drops, but one drop of the original compound;

—and so on: the intervening attenuations are indicated by fractions, of which the numerator is an Arabic, and the denominator a Roman numeral; thus, $\frac{1}{I}$ means the fourth, $\frac{2}{I}$ the fifth, and $\frac{1}{II}$ the seventh attenuation.

In computing the value of these homœopathic fractions, the reader must recollect, that each unit of the Roman numerals stands for three attenuations, but each Arabic unit for one only: thus $\frac{1}{VI}$ will denote nineteen attenuations.

We now take leave of our author, giving him our hearty thanks for his amusing book; indeed, his work is more than amusing; for, although the thinking physician will not adopt Dr. Quin's practice, he will certainly improve his own by the reflections which spring from the consideration of homœopathy.

The Signs, Disorders, and Management of Pregnancy; the Treatment to be adopted during and after Confinement; and the Management and Disorders of Children. Written expressly for the Use of Females. By DOUGLAS FOX, M.R.C.S.—Derby and London, 1834. 8vo. pp. 207.

No medical practitioner can require to be informed how useless, how injurious, are books like the one now before us; yet they find readers, as the fox finds geese. All popular treatises on medicine, and, we regret to add, too many of the vade-mecums and abstracts written for beginners, fall into the same error: they suppose it to be easy to distinguish diseases, and difficult to prescribe for them; the reverse being the truth. Medicine chests, clyster pipes, and medical books, should be eschewed by all laymen who wish to live long and cheerfully; and, if the goodman of the house finds his wife reading a treatise on pregnancy, even though "written expressly for the use of females," we should recommend him to burn it without a moment's hesitation.

ORIGINAL COMMUNICATIONS.

*Cases extracted from the Note-book of HENRY DAVIES, M.D.,
Physician to the British Lying-in Hospital, &c.*

CASE I. *Marasmus.*

OCTOBER 4th, 1820. Frederic Thomson, æt. seventeen months, has been wasting away for some weeks. His stools are slimy, and come away in jerks; he has three or four in quick succession, and then none for perhaps half a day. His skin is flabby and wrinkled; his belly hard, but not tumid. The patient moans much, and is very fretful. His appetite is bad, and he loathes everything except potatoes, which he will eat voraciously, and which are discharged undigested. He has four incisor and four molar teeth. He sleeps well, and indeed is always torpid.—R. Hydr. Submur.; Ipecac. pulv. āā gr. j. M. ut ft. pulv. omni nocte sumend.—R. Magn. Sulph. ʒij.; Aquæ Carui ʒss; Aquæ fontanæ ʒx.; Syrupi simpl. ʒij. M. sumat quartam partem bis in die.

The patient was ordered to use the tepid salt-water bath; and a stimulant embrocation was applied to the abdomen, which was also supported by a roller.

16th. A mixture of Inf. Cascariillæ and Magn. Sulph. was substituted for the previous one: the powder, bath, and embrocation were continued.

23d. An enema of mutton-broth was ordered to be injected every night; the other medicines to be continued.

25th. The patient is better.

30th. The stools are more natural in consistence, and he has two a day only: he takes his food well.—Continuentur Pulv. et Mist. Cascar. et enema.

November 6th. The belly is natural, the appetite good, and he has only three stools a day, which are of healthy appearance. The child is no longer so torpid, but he has a troublesome cough. He has cut another incisor. He was ordered to take an emetic immediately, and continue the cascariilla and the enema.

December 16th. Haust. Sennæ p.r.n. Rept. Cascar., &c.

27th. Belly regular; appetite good, sleep undisturbed. He still has a little cough, with a pale face and puffy skin. Sumat Vin. Ferri gtt. xv. ter in die. Rep. Haust. Sennæ p.r.n.

January 10th, 1821. The cough has left him. Contr. Vin. Ferri, &c.

31st. Discharged cured.

CASE II. *Marasmus, with Omental Tumour.*

1821. — Frame, æt. nine, had been attacked, about twelve months before, with pain in the left side and umbilical region, for which a blister and medicine were prescribed. The patient has since been under the care of various practitioners, but without any permanent benefit. The mother says that she has lost four children by similar diseases; the three now living are remarkably well-looking, with light eyes, and a fair delicate skin. The patient died July 21st, and the following post-mortem appearances were found on the 23d.

The abdomen was very tumid, and its parietes were green, as also were those of the thorax. On laying open the abdomen, the stench was intolerable, and a very large quantity of sero-purulent fluid was discharged. The intestines were coated with a deposition of coagulum, and were generally adherent to each other. The peritoneal lining of the parietes was in a state of suppuration, and resembled dirty fat mottled with spots of charcoal, while to the touch it had a granulated feel. The omentum was drawn under the left hypochondrium, covering most part of the stomach and transverse arch of the colon; to both of which it was adherent. It was spotted with black granulations, broke easily between the fingers, and looked like anything else as much as omentum. When the small intestines were cleared of a portion of the pustular deposition, red vascular patches were seen upon them, and their mucous coat was in several places destroyed by oval ulcerations. The colon was contracted, and the stomach smaller than usual. The mesenteric glands were very much enlarged, probably weighing about a pound; and one of them, close to the vertebræ, was in a state of suppuration.

CASE III. *Abscess in the Groin, from Swallowing a Pin.*

May, 1824. John Batt, æt. twenty-three months. When seven weeks old, a pin slipped into his mouth, as his mother was dressing him; two months after which a swelling was observed in the right groin. When the child was a year old the swelling increased, and was situated a little above the internal ring. It was reduced by leeches and poultices, but returned repeatedly, and was removed by the same means. At the age of fourteen months it re-appeared, and, as it did not yield to the usual remedies, and presented an evident fluctuation, an opening was made in it, and a considerable quantity of very fetid pus was evacuated. Fæcal matter was observed on the poultices about two months after making the incision.

When the patient was twenty-three months old he was attacked with measles, of which he died.

Sectio Cadaveris. A probe being introduced at the orifice, and cut upon, a sinus was found, extending an inch and a half in length above the opening; below this there was a small inguinal hernia, with an orifice in the gut, where a black substance was observed. This proved to be a corroded pin, with its point turned outwards.

CASE IV. *Encysted Omental Dropsy.*

December 12th, 1825. G. Upton, æt. two years and eight months. When two years old, his belly began to swell, and the urine was much reduced in quantity, and became of a milky colour. The abdomen is now greatly enlarged, tense, and protuberant, and the superficial veins are considerably distended. There are generally two motions daily, which are of a dark colour. The patient is very restless during the night, and screams occasionally in his sleep. He has cut all his teeth, and is able to walk about a little. He has been under the care of different practitioners for several months. R. Hydr. Submur.; Scillæ pulv.; Digital. fol. pulv. āā grss. M. ut ft. pulv. omni manè and nocte sumendus. Frictions to the abdomen were likewise ordered, and a flannel bandage.

16th. The abdomen has not diminished in size; there is no increase of urine, and the stools are still dark and slimy; on the other hand, his appetite was improved, and he sleeps better. Pulse 112.—Pergat.

23d. As the tension of the abdomen was extreme, and the patient appeared in great suffering, he was tapped to-day midway between the anterior and superior spinous process of the ilium and the linea alba, and nine pints of a greenish fluid were drawn off. He bore the operation extremely well, and was not sick during or after the evacuation of the water, but appeared much relieved by being freed from the pressure of so large a quantity of fluid.

25th. He has been very lively since the operation, and has slept well.

January 6th, 1826. The fluid appears to be collecting again. Small doses of elaterium were given, and with temporary benefit, as they increased the quantity of urine.

12th. The abdomen is tense, and the patient very restless.

18th. Paracentesis was performed to-day in the linea alba, midway between the symphysis pubis and umbilicus, and about four pints of fluid were drawn off. For three days after the operation the patient went on well, but afterwards became very restless. There was great thirst, accompanied by retching,

so that whatever was taken was soon afterwards rejected. Small doses of calomel and pulvis antimonialis allayed the vomiting considerably.

On the 25th he was evidently sinking; and died on the 27th.

Post-mortem Examination. On opening the abdomen, a distinct sac was observed, which adhered firmly to the peritoneum, and was found, on separating it from its connexions, to be the great omentum, the layers of which were thickened, so that the parietes of the sac might be about a quarter of an inch in thickness: its colour was a pale yellow, with a slight blush of redness throughout its substance. This cavity contained a considerable quantity of purulent matter mixed with a little serum.

Under the great lobe of the liver there was a thin semi-transparent cyst, containing about a pint of thin watery fluid. The other abdominal viscera were sound. A small quantity of water was found in the ventricles of the brain. The left eye exhibited an excellent specimen of fungus hæmatodes in its early stage; but the optic nerve, at its entrance into the orbit, did not present any trace of disease.

On the Sense of Equilibrium, and on its Disturbance. By HERBERT MAYO, F.R.S., Professor of Anatomy and Physiology in King's College, London.

AMONG the diversified investigations which Magendie has so successfully pursued in physiology, there is not one which has furnished more singular and unexpected results than his experimental display of the influence of different parts of the encephalon in originating impulses to locomotion. The experiments, and their results, are the following.

1. If the hemispheres of the brain are removed by an horizontal section through the striated bodies, the animal exhibits a permanent tendency towards locomotion forwards.

2. If the upper half of the cerebellum be removed, the animal exhibits a permanent tendency towards locomotion in the contrary direction.

3. If one tubercle is deeply wounded, the animal exhibits a permanent tendency to move in a circle, which is shewn equally in swimming and in crawling, in flying and in walking.

4. If the pedicles of the cerebellum, or the lateral part of the cerebellum, be cut through vertically on one side, the animal exhibits a permanent tendency to roll over and over towards that side.

5. When one of these experiments has been made, and the tendency to locomotion in a definite direction has been deve-

loped, if the counter-experiment, or the injury which determines the opposite motion, be made, the animal stops; the one tendency balances or extinguishes the other.

Magendie somewhere concludes, from these experiments, that the voluntary frame in the healthy living body is subject to, or naturally placed under, different impulses, the opposition of which causes an equilibrium, that is disturbed on the abstraction of one of the component forces. It forms, however, a more probable solution of the phenomena to suppose that the impulses to locomotion have no existence antecedently to the lesions of the brain, but that they originate in, and are caused by, the organic injury; that, for instance, a mechanical injury of one tubercle produces vertigo, or the sense of turning or swimming in the head, to which sensation, when at a certain degree of aggravation, the animal yields, following the whirl of its feelings by its bodily movements; and that injuries of the other parts of the brain produce sensations analogous to vertigo, such as that of moving forwards, backwards, or rolling over, and these again with sufficient intensity to force the voluntary efforts of the animal to follow.

The experiments of Magendie, which have been referred to, have therefore a pathological rather than a physiological bearing; they render it easy to comprehend how an altered condition of the brain may disturb the sense of equilibrium, but they do not explain upon what that sense is founded. The true explanation of this feeling was given by Darwin: his theory, which I have adopted, is to be found in the first volume of the *Zoonomia*; and the remarks which I have to offer upon the subject contain little that is original, although they may be new to the reader. I think, however, that I have added something to the notion of a muscular sense, which Darwin, as far as I am acquainted with his writings, rather assumed the existence of, than properly understood. The most that has hitherto been known upon this subject was made out by Dr. Wells; after him, by Dr. Spurzheim.

Our sense of support, or steadiness, or equilibrium, is not derived from a single organ of sensation, but is the resultant of impressions made upon three senses, which contribute, however, in very different degrees to its production. These senses are the muscular sense, sight, and hearing.

1. *Of the Muscular Sense.* The most appropriate term for this sense is the sense of effort. Every muscular action is attended with a sensation, which is a measure of the exertion made.

The ideas which the muscular sense communicates are the following:

A. In common with every other sense, it suggests the idea of locality.

B. In common, again, with the other senses, it suggests the idea of something external, as the cause of the sensations experienced.

C. The sense of effort made, or of resistance encountered, gives origin to the idea of force.

D. One set of impressions on the muscular sense gives origin to the idea of different kinds of resistance in the composition of masses of matter, of their hardness or softness, of their elasticity or non-elasticity.

E. Other modifications of muscular sensation convey ideas of the resistance of masses, whether they be fixed or movable, and in what degree.

F. With the preceding impressions is combined a sense of the direction in which the effort is made, or in which resistance is encountered.

The muscular sense has its seat in branches of the same nerves (the ganglionic portions of the fifth and spinal nerves,) which furnish sentient filaments to the integuments. It is, therefore, not surprising that the living muscle feels heat and cold, as the skin does, although perhaps not in the same degree. The sense of effort, on the contrary, is the peculiar endowment of the muscular branches; as the sensations by which we feel roughness, smoothness, and the like, are exclusively excited upon the branches distributed to the skin.

But there is another sense to which it is presumable that both sets of branches, the cutaneous as well as the muscular, minister. This sense is the sense of passive motion, or of its contrary, passive rest, rest without effort. Whenever the inertia of the body is disturbed a sensation is excited. When the frame is passively supported, as in lying down aboard ship, or in a carriage, we are sensible of the change from motion to quiescence, or the reverse, of changes in the rate of motion, and even of the direction of motion, whether it be upwards, downwards, forwards, backwards, sideways, or rotatory. In these instances, however, it is the idea communicated, which alone is simple, not its cause. At any change it is evident that there will be an impression upon the surface of the body, and a vague muscular effort excited likewise; and our feeling of the rate and direction of motion must result from the agitation of all the parts of the frame which are endowed with any modification of touch, or rather, from the combined impressions made upon them all.

The sensation of passive support is the sense of the absence of motion, conjoined with the absence of muscular effort: it

bears the same relation to the sensations that have been previously described, which the sense of darkness bears to sensations of colour.

A person who is blind and deaf must preserve his equilibrium through the means of sensations of muscular effort and of touch alone. When he rises from a state of passive support, or of complete bodily repose, he lifts up, by the successive flexions and extensions of his joints, segment after segment of his frame, feeling by his muscular sense the exertions necessary to sustain and balance his weight; and at each change of posture, or even in continuing to maintain the same posture, and at each instant, the guiding sense is used to measure at once and to call for the change or renewal of the effort.

One who, through being born blind and deaf, has been compelled to learn to preserve his equilibrium through the muscular sense and touch alone, moves and supports himself with perfect steadiness and precision, resting upon these senses. But those who have no such original defect employ other senses, especially that of sight, to assist in measuring their steadiness or unsteadiness of posture. They not merely feel the muscles pulling on different aspects of the joints, and the resistance they have to encounter, and are not merely conscious of holding up the frame by muscular efforts, in the same manner as in other positions they cling by the hands and feet to prevent falling, but they likewise lean upon their sight, or upon their eyes, as upon crutches, feeling steadily balanced, when each visual object around maintains a visually fixed position.

11. *Of Vision.* The law of vision, which is *principally* made use of in conveying the impressions which guide us in maintaining an equilibrium, is the law of visual direction. Through it we have definite knowledge of the direction of each point in space that we see. The law may be thus expressed. The retina is so constituted, that, when any point of it is excited so as to see, the object or the spectrum appears to be situated vertically opposite to the point of the retina so excited. This endowment of the retina is simple, and independent of any motion, or sense of motion, in the muscular apparatus of the eye. The beautiful experiments* through which this law was discovered were made by Scheiner. The following ruder experiment was thought of by myself, which, if the law as above stated were correct, should have a result so definite and simple as at once to prove and to explain the law without recourse

* See "Outlines of Physiology," by HERBERT MAYO, F.R.S. &c.

to the elaborate evidence contrived by Scheiner. When, by making pressure upon the globe of the eye, the retina is disturbed, it is well known that a coloured spectrum is produced. I found that, upon making pressure on different parts of the eye, the place of the spectrum obeys, or is determined, in every instance, by the law of visual direction above enunciated, appearing always to be vertically opposite to the point of the retina that is compressed.

Through this law of visual direction, which enables us to measure exactly our relative position to other objects, we acquire more rapidly than we otherwise should do, and more perfectly, the means of judging of and maintaining the bodily equilibrium. But, at the same time, we exercise all the less the muscular sense; and, when it becomes necessary to resort to that alone as our guide, we sensibly feel its imperfectness, from the contrast of our present state with the certainty of sensation which we before enjoyed. In the dark, for instance, or with the eyes closed, we are unable to walk in a straight line; and, in attempting it, feel a strain and effort of attention to be necessary to do that imperfectly which habit has rendered easy to the blind. A case which bears a curious analogy to this is the difference of the power of distinguishing distances, which a person long blind of one eye exhibits, from one who, having perfect vision with both, for experiment's sake, looks with one only. The former has a vast superiority; for the latter has been in the habit of attending to and calculating upon the convergence of the optic axes, as the object of vision is nearer or more remote, which motion forms no part in the vision of the other.

The influence of sight in maintaining the sense of equilibrium is even better exemplified by disturbing visual impressions than by wholly excluding them. A person who, without previous practice, looks upon a mirror swinging to and fro, or upon the ripple of an extensive sheet of water, or down a steep declivity, becomes giddy: he has no longer a sense of steadiness, or of equilibrium. The visual impressions on which he habitually rests now are uncertain: the objects upon which his eyes used to dwell are either in motion, or at an uncertain distance; there is a relative unsteadiness, and whether it be in the object or in himself he cannot determine, and becomes giddy.

Habit enables one to disregard these uncertain impressions, and by confining the attention to the muscular sense, to preserve the sense of equilibrium on shipboard, or amid alpine scenery. Bodily debility, on the other hand, weakens our reliance upon our senses, and makes us doubly suscep-

tible of giddiness on the kind of occasions which are here adverted to.

It is perhaps in the state of nervous debility alone that the influence of hearing, in maintaining or disturbing the sense of equilibrium, can be observed. At such a time, when loud and confused sounds strike upon the ear, the frame is perceptibly less steady, and the patient nervously looks around for external support.

The distress produced by removing the support of one sense is greatly aggravated by taking away that derived from a second. Such is the distress at first commonly experienced in a swing, or on board ship.

As practice will do so much in enabling one to preserve his steadiness, while all around is moving, and when for each second of time there must be a fresh adaptation of the frame to its shifting position, so is there a prodigious natural diversity among men in this respect. Some instinctively and at once adapt themselves, like boys placed on horseback, pliantly and easily to each variation of position. In others the body is unmanageable and unadaptive, and giddiness is immediately produced. I have generally remarked, that those who, without practice, can bear the motion of a swing or of a vessel, bear with equal freedom from uneasiness the looking down from great elevations.

The *continuance of giddiness* that has been produced by the motion of a vessel, or by turning round many times in succession, *after the cause has ceased*, deserves to be examined. It is referable to a principle of universal operation through all the mental actions. There is a law of mental induction, which extends the effects of an impression to some period after it has ceased. The anatomist who has been busied all day in teasing out filaments of nerves, when he closes his eyes to rest, is perplexed by the entanglement of threads, which his vivid conceptions force upon him. In the same manner, in one of the instances before us, the strong conception of turning remains for a long time after the body has been stopped, and we feel no little tendency to follow the conception, and realize the motion.

Giddiness strongly excited, either by continued turning or by the motion of a swing, or of a vessel, leads to nausea and vomiting. Dr. Wollaston referred the effect in some of these instances to the altered momentum of the blood in the brain. I believe that they admit of another, and a more general and a more just explanation. Giddiness, nausea, and vomiting, appear to me the natural consequences of the disturbed sense of equilibrium: there appears to be the same alliance between

this sense and the effect on the stomach, as between some of the other senses (taste, for instance, or smell,) and the same. Disturb the sense of equilibrium, or present any extremely nauseous effluvia to the nose, and in either case vomiting follows.

Those who are very susceptible of disturbance of the sense of equilibrium know that one of the different causes which most excite distress and nausea, is the feeling of sinking or descending from want of support; as, for instance, when one is in a vessel that is pitching, or when a person is seated in a carriage with his back to the horses. The sense of being lifted up, on the other hand, is a strong relief, after the distress attending the sensation of failing support. As far as I can see, this difference is entirely arbitrary.

The following argument appears to me conclusive in favour of the hypothesis, that nausea, in these instances, is directly dependent upon disturbance of the sense of equilibrium. When a person has taken wine too freely, if he closes his eyes, a sensation of vertigo arises, accompanied with nausea. The vertigo no doubt results from some affection of the brain, analogous, in its temporary effects at least, to the injury of the tubercles in Magendie's experiments. Now, if the patient, under these circumstances, opens his eyes, and fixes them upon any distinct and stationary object, the internal source of whirling appears arrested, and the sense of equilibrium is quickly restored. At the same time the nausea goes off,—so closely and directly is it connected with the sense of disturbed equilibrium. On the recommencement of the inward whirl, produced by again closing the eyelids, the nausea returns; on steadying by the eye the whirling sense, the nausea again disappears.

Comparison of the Circular and Flap Operations in amputating the Thigh. From *Clinical Remarks*, by HERBERT MAYO, F.R.S., Surgeon to the Middlesex Hospital.

THE occurrence, in the Middlesex Hospital, during the last half year, of several cases requiring amputation of the thigh, has offered our students, along with other points of interest, an opportunity of comparing the advantages of the circular and flap operations.

I. After amputation of the thigh, the surgeon is often disappointed at finding that, careful as he may have been to guard against this particular evil, *the bone projects*, and, either becoming uncovered, throws off a ring of exfoliation, or, being just retained within the integuments, after healing,

rests immediately against the cicatrix ; the stump is conical, and unable to sustain pressure.

The following case will serve to exemplify what I have stated.

— Devonport, ætat. twenty-five, underwent amputation of the thigh in December last, for disease of the knee. The operation performed was the double circular incision. The integuments and fascia lata were divided by one incision. After these parts had been turned back, the muscles were divided by a second incision. The flesh was then pushed back from the bone, and the bone was sawn through. The edges of the integument, when drawn together, met well in a transverse line. Inflammation of the face of the stump, however, supervened on the third day; when it became necessary to remove the roller and adhesive plaster. No union by adhesion took place; the whole cavity of the stump suppurated; the bone projected; and it was evident that the sawn edge, for the depth of a quarter of an inch, would exfoliate. While the inflammation continued, little could be done to prevent the increasing retraction of the integument and muscles; but, when it had subsided, means were used, by rollers laid longitudinally on each side, and fixed by a circular roller round the thigh, to get some purchase upon the integuments and muscles. The longitudinal rollers were fixed to the amputation-cradle in a manner to exert a constant traction upon the flesh of the thigh, which they gradually brought forward, so that, at the expiration of ten weeks, when the rim of bone had exfoliated, the end of the stump was tolerably full and round.

In this case, inflammation casually supervening on the third day appeared the source of all the mischief: but it is possible that it had an earlier origin; and I am not satisfied that, in the first dressing, the roller was not applied too tightly round the thigh, in the wish of keeping the muscles and integuments well forward over the bone, which, though covered, yet seemed disposed to project. The bone may have been left of inconvenient length, and the attempt by pressure to support the integuments covering it may have promoted the inflammation which followed.

The patient's recovery was protracted and tedious; but was this wholly, or exclusively, owing to the too great length and subsequent exfoliation of the bone?

Jane Deans, ætat. seventeen, suffered amputation of the thigh on the 7th of February. The steps of the operation were the same as in the preceding case; but, on preparing to

close the stump, on looking closely to the length of the bone, the same tendency to protrude was apparent as in the preceding instance. I therefore sawed off an additional third of an inch of bone. The sides of the stump then came together excellently, the end of the bone being completely buried in muscle, and the integuments meeting without the least strain over all. The stump was then dressed very lightly.

I was extremely disappointed with the immediate progress of this case: the patient, at the time of the amputation, was in a state apparently the most favourable for union by adhesion. Originally a very healthy young woman, of rather a full habit, she had suffered for many months severe pain, which had reduced, but had not dangerously extenuated her. The loss of blood in the operation, and removal of the source of pain, should have tended to produce that repose in her system, which would have encouraged the speediest healing of the stump. The reverse happened: the whole interior of the stump suppurated, and, although the patient's health was excellent after the first few days, yet nothing could be more tedious than the union of the wound: the final closing of the stump did not take place for twelve weeks. Nevertheless, as it drew together, the extremity was full, round, and fleshy; the cicatrix a mere line, two inches in length.

Two conclusions the student might deduce from the preceding cases: one, that the stump produced after amputation of the thigh by the circular incisions may have the greatest possible roundness or fulness; the other, that a surgeon, if he has a doubt as to the length of the bone, when he is about to close the stump, should not hesitate to saw off an additional third or half inch. It is needless to say, that the sawing off a second portion of bone is no sensible aggravation of the patient's sufferings. The only objection to it, and it is of trifling moment, is that the second section may be followed by bleeding from the medullary vessels, which may render an additional delay of some minutes necessary before the stump can be closed.

But *ought* there ever to be a necessity for sawing off a second portion of bone? In some instances I believe it to be unavoidable, supposing the surgeon to operate with a tourniquet. Without a tourniquet, indeed, the full retraction of the muscles takes place immediately, and the surgeon sees exactly at what height it is requisite to saw the bone. But, in operations with the tourniquet, this point cannot in every instance be determined. I have tried the effect of waiting two or three minutes after the division of the soft parts, the

tourniquet remaining on, before I sawed through the bone; but the result disappointed me. I sawed through the bone, after having so waited, at what appeared to me a proper length; but, upon removing the tourniquet, additional retraction took place, and the bone was too long by a third of an inch.

In studying to obtain a sufficiently full and fleshy stump by the circular operation, a choice of evils has therefore to be made: it is necessary either to operate without a tourniquet, or occasionally to saw off an additional portion of bone. In some cases, perhaps, it may be well to prefer amputation without the tourniquet. If you have an assistant on whom you can perfectly depend, and if it be not important to secure the patient against unnecessary loss of blood, the operation without a tourniquet is certainly more rapid, and *then* almost as safe: otherwise, and for general practice, the operation with the tourniquet ought alone to be recommended. There is, indeed, a third method, which, however, would be attended with its own sources of inconvenience,—to divide the soft parts,—to tie the vessels,—then to remove the tourniquet,—and, as the last step, to saw the bone.

II. My disappointment at the tedious recovery of the last patient led me to employ the flap operation at the next opportunity. I thought it possible that, in the operation by circular incisions, the elaborate, but necessary, dissection of the integuments and fascia from the muscles might have essentially indisposed the divided parts to union by adhesion.

Benjamin Cockerell, ætat. seventeen, underwent, on the 5th of March, amputation of the left thigh, for disease of the knee. I pursued the following method: With my left hand I took hold of the integuments and muscles immediately above the knee. My assistant, Mr. Tuson, in like manner grasped the flesh higher up, beyond the line which I intended the incision should take. The flesh of the thigh was then drawn to the inside, so that the line of the integument, which is naturally placed above the axis of the femur, now covered its inner margin. A long and pointed two-edged knife was then passed through the thigh, on the inside of the bone, and carried obliquely downwards and outwards, so as to cut its way out. The same steps were repeated on the inside, and the second lateral flap thus made. The bone being divided, the flaps came together perfectly. Union took place by adhesion.

This operation in many respects was satisfactory. The division of the soft parts was more rapidly executed in this

manner than by circular incisions; and I thought that the pain suffered was actually less, through the parts being divided *from within outwards*. The healing of the stump was as rapid as possible, as the whole of the interior united by adhesion. This must be attributed partly to the simplicity of the wound, which is unattended by such separation and dissection of parts as takes place in the method by circular incisions; partly to the exact apposition into which the divided surfaces are brought in the flap operation, leaving no intervals or vacuities, which first fill with blood, and then suppurate.

The only point which did not perfectly answer my expectation was, that the bone, though well covered, pointed directly against the cicatrix. Nevertheless, I contrived, before the stump had completely cicatrized, to obviate this inconvenience in a great degree by rolling the thigh from within outwards, so as to twist the integuments and flesh in such a manner that the greater part of the end of the bone rested against the inner flap.

It occurred to me, on reflecting upon this case, that, by modifying the flap operation,—by making, for example, the flaps transverse, instead of lateral,—the inconvenience I have last adverted to might be possibly obviated. An opportunity offered of putting this idea in practice.

Hannah Allen underwent amputation of the thigh on the 29th of March. I employed the method of transverse flaps. I first made the posterior flap, having pierced the limb behind the bone with a long catline, which cut itself out. I then in the same manner made the second flap in front of the bone; giving it, however, greater length than the posterior flap. The long anterior flap came well before, and completely covered the bone. The stump united by adhesion.

The result of this case was highly satisfactory, as far as again showing the superior rapidity with which a stump will heal after the flap operation; and in the specific point which I had in view I was not disappointed. But an unexpected evil has shown itself, which will make me in future adopt in preference the operation by lateral flaps. The patient experiences difficulty and pain in fully extending the thigh. This is perhaps accidental; but I am disposed to attribute it in part to the rectus having been left nearly entire in the anterior flap, and having been brought down before the bone, behind which is the line of union with the posterior flap. I suppose that the tone of the rectus is constantly tending to bring the hip-joint to the state of flexion. But, as the flesh of the extremity of a stump always degenerates, I entertain hopes

that in this instance the inconvenience which I have described will be temporary only, and will eventually disappear.

The great advantages which attend the flap operation are, expedition in its performance, and subsequent rapidity of union, and recovery. It has this minor advantage besides: the bone can be sawn through with more certainty at the height required than in the circular method. However, upon this point there is some uncertainty even in the flap operation; as the tendency to retract in the muscles and integuments varies so remarkably in different cases. The only law which I have observed upon this subject is, that in strong and healthy limbs the integument retracts to a great extent, the muscles hardly at all; while in extenuated limbs exactly the reverse happens.

19, George street, Hanover square ;
June 3, 1834.

Observations on Catarrhal and Catarrho-rheumatic Ophthalmia.

By FREDERICK TYRRELL, Esq. Surgeon to the London Ophthalmic Infirmary.

Most frequently, during the spring and autumn, inflammation of the eye prevails for a short time as an epidemic, combined with catarrh, and therefore denominated catarrhal ophthalmia. This disease is usually very tractable, and requires but little medical skill to subdue it.

In the concluding part of the late winter, and from that period up to the present time, catarrhal ophthalmia has been more prevalent than I have known it during the last sixteen years, in which, as surgeon of the London Ophthalmic Infirmary, my attention has been especially directed to ophthalmic diseases. The disease has lately in numerous instances been unusually severe, and has affected the sclerotic as well as the conjunctiva, assuming a catarrho-rheumatic character. It is my intention, in the following paper, to give a description of the catarrhal and catarrho-rheumatic ophthalmia, and of the treatment which I have successfully pursued; and this I am induced to do, from having observed much difficulty among practitioners in the management of these diseases, arising from the want of a correct diagnosis, or from confounding the two diseases, or from considering them to be purely local.

Of Catarrhal Ophthalmia.

It commences with stiffness and heaviness about the palpebræ, with slight irritation or itching of the ciliary margins,

and a sensation as if some fine particles of dust had lodged on the surface of the globe: there is usually slight intolerance of light, with increased secretion of tears and agglutination of the lids during sleep. After a short time the patient experiences pain, which is increased by motion of the eyelids, or by exposure to bright light. These symptoms are aggravated about sunset.

On examining the eye there is perceived in the early stage slight thickening and redness at the free margins of the lids, and probably some coagulated secretion collected at the inner canthus, and about the cilia. The ocular portion of the conjunctiva exhibits a few tortuous vessels filled with red blood, whilst the palpebral portion is red, tumid, and villous, like crimson velvet; and in the lower folds between the ocular and palpebral parts of the membrane a little whitish or slightly yellow and thick mucous secretion is lodged.

The inflammation, however, soon spreads to the ocular conjunctiva, the vessels of which become extensively injected with red blood, and, on close inspection, are found to form a beautiful net-work. In severe cases the conjunctiva is partially thickened and elevated by deposition of serum between it and the sclerotic, constituting a partial chemosis, and occasionally small spots of ecchymosis are perceived from the rupture of some minute vessels.

If the disease extends farther it produces ulceration of the cornea.

This ophthalmic disease seldom exists without some symptoms of general catarrh, such as headach, sense of fulness about the frontal sinuses, sneezing, increased secretion from the nose, and some general febrile symptoms: the local and general diseases are usually reciprocal.

In young subjects the catarrhal-ophthalmia is often modified by a strumous diathesis, which occasions the local affection to be more severe, augments especially the intolerance of light and lachrymation, and disposes to the formation of pustules.

This disease may occur at any period of life. It is produced by a peculiar state of the atmosphere, during the continuance of which there is considerable difficulty in entirely removing the ophthalmia.

The treatment must be guided by several circumstances, as, the severity of the local diseases, the extent of constitutional disturbance, the condition of the general power, &c.

When there is simply affection of the palpebral conjunctiva with morbid mucous secretion and little general disturbance, and sufficient constitutional power, I prescribe a brisk aperient

of calomel and colocynth, or calomel and rhubarb, or jalap, and afterwards a small quantity of some of the preparations of mercury with antimony, or with Dover's powder at night, and a mild saline aperient in the morning, also mild diet, principally vegetable and farinaceous, with quiet, and the avoidance of cold or damp, or of bright light.

Locally, I employ merely tepid water, to cleanse the eyes; or warm water to foment them when uneasy, and some simple ointment, which should be smeared upon the lids and eyelashes before the patient goes to sleep.

When the local disease is acute and the constitutional affection considerable, general or local bloodletting must be resorted to; the former being only necessary in persons of naturally full habit or subject to inflammatory diseases, and after bloodletting the treatment above described will be applicable.

In a few days the mild or acute form, if treated as I have described, passes into the chronic stage, which is denoted by a general mitigation of symptoms, but more especially by an alteration in the mucous secretion, which becomes thin and pale, and by the change in colour of the conjunctiva, which loses its brilliant aspect, and presents a more pale and lax appearance; at the same time it is found that the general power is failing under the continuance of the constitutional affection; the treatment must therefore be changed. Instead of exciting the secretions, they must now be kept as near as possible in their natural state, and a more generous diet must be allowed, but still the patient must abstain from such food as may tend to excite vascular action. It is necessary, in persons of feeble power, to give, in addition, some medicinal stimulus, as some of the preparations of bark, mineral acid, or ammonia.

To subdue the remains of the local disease, a slightly astringent lotion must be substituted for the tepid water, as, a solution of the acetate of lead half a grain, or a grain to the ounce; or a solution of alum a grain or two grains to the ounce; the sulphate or acetate of zinc a quarter or half a grain to the ounce, or nitrate of silver in the same proportion. Also a stimulating ointment must be applied instead of the milder form, as, the dilute citron ointment composed of half a scruple or a scuple of the unguentum hydrargyri nitratis, to two drachms of unguentum cetacei, or a scruple of the unguentum hydrargyri nitrico-oxydi to a drachm of the unguentum cetacei.

When catarrhal-ophthalmia is modified by a strumous diathesis, there is, as I have observed, intolerance of light in

an increased degree, for the relief of which counter-irritation by means of blisters must be employed, in addition to the remedies already described; but the disease is always more obstinate when thus modified, and there is more difficulty in distinguishing between the acute and chronic form, inasmuch as the intolerance exists in both stages; the sufferings which it creates frequently induces the inexperienced surgeon to imagine that the disease must be acute.

As the constitution of strumous children is usually feeble, depletory measures must be adopted with caution, and the subsidence of the acute stage carefully watched, to prevent the unnecessary continuance of active treatment.

In producing counter-irritation, I am convinced that more good results from the repeated applications of small blisters, than from keeping the blistered surface open, or any other mode of inducing continued action. I direct a small blister to be placed either behind the ear, on the temple, or just above the eyebrow, and to be removed as soon as it has produced vesication; after which the part is to be dressed with some simple ointment, and allowed to heal: but, before it is perfectly well, I order another blister to be applied in the same way to another place; supposing the intolerance of light continues. I am confident also that in strumous children any cold applications to the eyes are injurious, and therefore I merely use tepid water in the acute stage, and depend in great measure on general remedies; and, in the chronic stage, if I employ stimulants, I have them applied warm.

When pustules are discovered on the ocular portion of the conjunctiva, there is not any necessity for deviation from the treatment which I have directed, although the eye is usually more irritable in consequence of the greater inequality of the conjunctival surface.

The above treatment commonly succeeds in subduing the general as well as the local disease; but now and then the acute local symptoms subside whilst the febrile action continues severe, and under these circumstances the surgeon should of course avoid the exhibition of tonics, and the use of local stimuli, as either would invariably occasion relapse.

The disease lately prevailing has been attended with considerable depression of nervous energy and diminution of general power, although the ophthalmia has in many instances been very severe; the acute stage has however readily yielded, and the principal difficulty has been in the management of the chronic form.

By far the greater number of cases in which I have been

consulted have been in the chronic form, and in consequence of continued redness, pain, &c., treatment requisite for the acute form has been improperly continued; and the majority of these cases have rapidly recovered under the treatment directed for the chronic form of the disease.

Of Catarrho-rheumatic Ophthalmia.

This affection commences with symptoms similar to those of the catarrhal, but with more early suffering: for, in addition to the symptoms of the catarrhal disease, the patient experiences a constant dull aching pain in the globe of the eye, and in the temple and eyebrow: the globe feels tense, and as if it had been bruised; and these pains and sensations become so much augmented towards evening as to prevent sleep. The accession of pain is accompanied with intolerance of light and a feeling of dryness of the conjunctival surface, so that the motions of the eyelid upon the eye produces excessive pain; but occasional gushes of tears occur which for a few moments produce some relief: while the symptoms continue thus acute, the globe of the eye, the temple, and eyebrow, are extremely tender to the touch.

In the intervals between the severe attacks, when there is but slight intolerance of light, vision is frequently indistinct, and occasionally small black spots or muscæ are perceived by the patient.

On superficial inspection of the eye, the appearances denoting catarrhal-ophthalmia of an acute kind are apparent; such as the red palpebral margin, the thick mucous secretion, the thickened and villous state of the palpebral conjunctiva, with the tortuous vessels and vascular net-work on the ocular portion of the membrane; but an attentive examination soon discovers that the colour of the ocular conjunctiva is more uniform and deeper than in the simple catarrhal disease: and this upon further observation is found to depend upon the existence of another set of minute vessels filled with red blood, which can be traced in the intervals between the tortuous vessels of the conjunctiva as passing beneath them in a straight course from the margin of the cornea towards the orbit: these vessels are situated in the sclerotic coat; they are occasionally found more abundant in one part than another; as, for example, more upon the nasal than the temporal side of the cornea, and of course augmenting the depth of colour in such particular situations: it requires therefore a careful examination of the whole ocular surface to detect them.

When the vision is affected, being cloudy or troubled with

muscæ, some change is perceptible in the iris; its pupillary aperture is contracted, its brilliancy is diminished, or its colour slightly altered; which circumstances are best detected by comparing the iris of the affected eye with that of the healthy organ: the motions of the affected iris also are sluggish. The iris suffers in consequence of inflammation extending to it from the sclerotic.

Sometimes a partial or complete ash-coloured line is seen between the cornea and vessels injected with red blood, most frequently the line forms a complete circle around the cornea; but I have seen it merely occupying a portion of the circumference of the cornea, being apparent at its temporal and nasal margins, and deficient superiorly and inferiorly. This appearance is considered by the continental and also many of our own ophthalmic surgeons, as a diagnostic of rheumatic inflammation. Such opinion, however, I consider to be erroneous, for I have seen a similar line present in iritis, simple sclerotitis, and choroiditis. I believe it results from the mode of junction between the sclerotic and cornea, occurring when any of the diseases alluded to are present, and seen most distinctly when the junction of the two structures is very oblique, but not at all evident when the textures are joined with little or no obliquity. Now and then the margin of the sclerotic overlaps or joins obliquely the circumference of the cornea, more in one part than another, and this I have observed most frequently on the temporal and nasal sides, so as to make the transverse diameter of the cornea less than the perpendicular diameter. When such formation exists and inflammation affecting the sclerotic occurs, the ash-coloured line is apparent only towards the nose and temple.

Commonly there is other evidence of rheumatic diathesis when this form of ophthalmia exists, the patient having pain about some of the joints or fibrous tissues in other parts of the body.

The exciting causes of the disease are cold and moisture; and I believe that the simple catarrhal affection is often converted into the catarrho-rheumatic, by too great a use of cold lotions.

Treatment. When inflammation preponderates in the conjunctiva, and the sclerotic is but slightly affected, the congestion of the vessels must be relieved by the application of a few leeches; at the same time I give the patient an active purgative, and then for a day or two I pursue the same plan as if the disease were simply catarrhal, excepting that when the circum-orbital pains are severe, I direct blisters to be applied, or a few grains of the blue ointment with opium to

be rubbed into the temple and forehead at night. Immediately the severity of the conjunctival affection has subsided, I prescribe a more nutritive diet, and small doses of bark and soda, sarsaparilla and lime-water, or some mild tonic with an alkali. I desire the patient to abstain from all acid food and fermented drinks.

Locally, warm water is occasionally used to cleanse the eye, but the patient must carefully wipe it, and not allow the surface of the lids to remain moist, as I am satisfied it augments the mischief.

The repetition of blisters is serviceable where there is much intolerance of light, or continual circum-orbital pains.

When the eye continues irritable, with but little vascular congestion or symptoms of inflammation, I find considerable advantage from putting a drop or two of *vinum opii* into the eye, once or twice in the twenty-four hours. If this remedy produces pain, which is continued beyond eight or ten minutes, it does no good.

If the catarrhal affection of the conjunctive be slight, and the inflammation of the sclerotic severe, without however much affection of the iris, local bloodletting is rarely necessary. The patient is at first to be freely purged by some drastic medicine, after which a full dose of colchicum, with a narcotic, may be given, especially when there is any marked rheumatic diathesis: the best period for administering this dose is in the evening, a short time before the usual period of exacerbation. I have known it to subdue altogether the sclerotic inflammation, leaving but a slight catarrhal ophthalmia. If the first dose appears to alleviate the disease, it may be repeated every six or eight hours for three or four times; but I have never found any benefit from a longer continuance of this remedy, nor have I seen much advantage from it when it has occasioned disturbance of the stomach or bowels. I consider its beneficial action very uncertain.

Otherwise, I prescribe according to the state of general power, which it is of the utmost importance to observe, in order to treat successfully. Very often, when the local disease appears acute, the general power is extremely feeble; or, on the contrary, when the local disease is slight, the constitutional power is good; but occasionally, the general action is energetic when the local disease is severe. When the action of the heart and arteries evinces deficient power, although the local symptoms and appearances may indicate an acute form of disease, any active depletion likely to affect the system ought not to be adopted; blistering is the best means of relieving the local congestion; besides which, medicines should

be given to correct any error in the principal secretions, especially those of the bowels, skin, and kidneys: the two latter I find most frequently to be deranged. Antimonials with salines, are therefore most serviceable after the bowels have been acted upon. The patient must be allowed a good nutritious diet, and even a small quantity of stimulus, if much addicted previously to its use.

As soon as the secretions are in a healthy condition, tonics should be exhibited, and if the general power is good I prescribe five grains of the pulvis cinchonæ, and an equal quantity of the sodæ subcarbonas exsiccata every four or six hours; and I know of no remedy so generally serviceable in the state of the disease above described. I am indebted to Mr. Wardrop for the suggestion of this medicine. I have frequently known it succeed in relieving inflammation of the sclerotic, when the larger doses of the same preparation have been taken some time without benefit. Should this remedy fail, I give the sursaparilla with lime-water, but with either medicine it is necessary to administer an occasional purgative, with or without some mercurial, according to the state of the biliary secretions.

When the patient's power is feeble, I usually commence with the sulphate of quinine, as a tonic, in doses of three or four grains every four or six hours; and, if there is a disposition to inordinate cutaneous secretion, I prescribe, in addition, twenty or thirty minims of the dilute sulphuric acid. Under these circumstances, also, a generous diet is requisite, and a moderate quantity of any stimulus to which the patient may have been accustomed. I have lately seen many cases in which the catarrho-rheumatic disease had continued, (principally however of a rheumatic character,) for six or seven weeks, or more; a depletory treatment having been persisted in, and in which a cure has been effected in as many days after the tonic plan has been adopted.

It sometimes happens that the disease has extended from the sclerotic to the iris before the patient applies for relief, or that the affection being treated under the supposition that it is merely a conjunctival inflammation, the remedies employed have not been sufficient to prevent the extension of the disease to the iris. Inflammation of the iris is indicated by a loss of brilliancy, an alteration in colour, a thickening of the pupillary margin, and a contracted and sometimes irregular condition of the pupillary aperture. When the iris is but slightly diseased, there is no occasion to deviate from the treatment which I have just described; but if the inflammation of this texture is decidedly developed, it is absolutely

necessary to resort to mercurial treatment to stop its progress, otherwise the plan of depletion which I direct in the early stage of catarrhal or simple catarrho-rheumatic ophthalmia, may not arrest the inflammatory action in time to prevent deposit of lymph in the texture of the iris and in its pupillary margin, by which the pupil may be rendered permanently irregular, or its margin become in part adherent to the anterior capsule of the lens, and the transparency of the capsule itself be materially injured.

The exhibition of mercury must be carefully and guardedly resorted to, especially when the constitution is feeble, which I have observed it most frequently to be in persons suffering from this disease; nevertheless I deem the use of the remedy of the greatest importance, if given in small doses, at short intervals, whilst the patient is allowed a nutritious diet, and the secretions kept in good order; the surgeon may, by keeping a careful watch, always stop the exhibition of the medicine in time to prevent any mischief.

At the same time that mercury is given, the extract of belladonna should be applied to the eyebrow night and morning, to keep the pupil in a dilated state, and prevent any adhesions taking place between the pupillary margin of the iris and the anterior capsule of the lens, with a contracted pupil; or to aid in the separation of such adhesions, should they have been formed previously.

The mercurial treatment must be stopped as soon as the inflammation of the iris subsides, whether the system be affected by the remedy or not. I have seldom had occasion to give mercury so as to produce any marked effect on the system in these cases, and have always found that when the remedy has by accident, or inattention, created much general disturbance, the cure of the remaining disease in the sclerotic has been more difficult. The disease in the iris being subdued, the plan I have recommended for relieving the inflammation of the sclerotic should be immediately adopted.

In several instances which have come under my observation during the last few months, although the general and local diseases have not been very severe, the patients have experienced excessive debility, and have not recovered until they have had the benefit of change of air for a short time.

I have been desirous to shew, in the preceding observations, that it is of much importance, by careful examination of the organ and attention to symptoms, to ascertain the extent of disease before treatment be commenced, and that the treatment must be varied according to the extent and severity of the inflammation; but especially to point out to the existence

of apparently severe local inflammation, with a feeble state of the constitution, which I have observed frequently during the late prevalence of these diseases; for I am satisfied that inattention to this circumstance has been the principal cause of want of success in the management of most of the cases which I have seen in consultation.

—

Observations on the Treatment of Bronchocele.

By JAMES REID, Esq., M.R.C.S.*

IT has been the opinion of some authors that this disease is not of sufficient importance to require any particular method of treatment, as it produces deformity merely, unaccompanied by danger. Many of our own writers on this subject affirm, that they have met with no cases of goitre which terminated fatally. Gooch, for instance, who paid great attention to this disease, says he never knew life to be endangered by it, even when of large size. An American author, Dr. Gibson, affirms, too, that "few if any cases are on record of death from suffocation in this complaint." This is quite contrary to the facts which have fallen under my own observation; four cases of death from suffocation in this disease having come under my notice in the space of a year. Apoplexy occurs even more frequently, owing to the pressure of the tumor on the large veins of the neck. Numerous cases of fatal termination are detailed, too, in the continental journals; and, if we include those which, from their urgent and distressing symptoms, have (from being neglected at an early stage,) required a surgical operation (so often attended by fatal results,) we shall come to a far different conclusion. Sedillot, in his *Journal de Medicine*, relates the case of a boy, æt. fourteen, in whom the thyroid gland, without any assignable cause, enlarged most rapidly, and caused death by suffocation. Mr. Bromfield's death, I am informed, was owing to a similar cause, and another late member of the council of the College of Surgeons had a large bronchocele, chiefly affecting the right lobe, producing great fulness in the head and difficult respiration: in the latter case, however, at the age of sixty-five, part of the tumor put on a livid colour, and sloughed to about the size of an orange, which reduced him very much, but eventually was the cause of its entire disappearance.

The great danger to be apprehended from bronchocele arises, then, either from its large size and firm texture pressing on the neighbouring parts, (especially where, from the rapid

* Extracted, with some alterations, from an unpublished Essay which gained the Jacksonian prize in 1829.

increase of the tumor, the latter have not had time to accommodate themselves to the change,) or from the direction the tumor takes, encircling the trachea, even when not of large dimensions, as I have elsewhere remarked, in which cases the functions of respiration and deglutition are soon impeded:* should the disease partake of a scirrhus character, the danger is of course more imminent. Although Petit and others have related cases in which abscesses of a mild chronic nature had gradually formed in the enlarged gland, and dispersed it, still in some others this very circumstance has been attended by fatal results; an opening having been formed between its posterior portion and the trachea, and instant suffocation following.

The difficulty of effecting a cure in bronchocele was much felt by the ancients; at the present day, however, we possess remedies which will in a great majority of instances permit us to promise if not a total cure, still a great diminution of the tumor, and its accompanying distressing symptoms; in others they will fail in lessening the size of the gland, but yet prevent its further progress.

The two classes of bronchocele, accidental and endemic, require precisely the same mode of treatment, and, in speaking hereafter of any remedies, I shall consider them as applicable to either species. A very numerous list might be presented which have been held in repute at different periods, but I will mention among the principal ones only the internal use of soda, crabseyes, muriate of barytes, cicuta, belladonna, digitalis, and (the only one which has obtained any lasting credit) burnt sponge. Innumerable external remedies have been likewise recommended, such as friction with different stimulating oils, muriate of ammonia, mercurial ointment, compression, blisters, &c. Richter and Foderé found sulphuret of potass prove of service; while Prosser mentions a case in which chewing tobacco had removed the tumor, but at the same time he says he does not recommend the remedy to ladies, for fear of their gaining a habit of *quidding*, and not being able to leave it off. Diuretics have been praised by Gerard; whilst Dr. Gibson has found more benefit from the use of cicuta in bronchocele, than from any other remedy. The famous Coventry recipe, which formerly was held in such high estimation, consisted of ten grains of burnt sponge, with the same quantity of burnt cork and pumice-stone, made into a lozenge or bolus. The substances made use of by the ancients in the treatment of this complaint were various, and

* Vide Case.

of the most fanciful description; medicines composed of snakes, worms, &c. internally, and amulets, charms, and other external applications, are fully described by different Greek and Latin authors. "Bibe quotidie (says *Johannus Agricola*, for instance,) ex cranio hominis et inde struma evanescit;" but these remedies will be found amply and very uselessly discussed by several modern authors.

This tumor formerly came under that class of disorders which in our own country, as well as in France, were presented for the royal touch.

The treatment of bronchocele may be divided into three kinds, prophylactic, therapeutic, and surgical. The first will consist in avoiding, as much as possible, all the probable causes which influence its growth, especially in endemic goitre, such as removing from the district in which it was acquired; and this alone has been found sufficient to cure it in many instances: thus *Foderé*, who was himself affected by this disease till the age of fifteen, lost it by quitting Switzerland, but it returned when he afterwards went to reside at Strasbourg, although he was at that period advanced in years. The patient should be cautioned not to dwell in humid or ill-ventilated spots; the neck should be kept warm, and he should refrain from exercising the voice strongly, as in singing, reading aloud, or any other violent exertion. The state of general health should be particularly attended to, before commencing any specific mode of treatment.

The younger the patient, and the less firm and hard the tumor itself is, the greater likelihood is there of a complete cure; where it is of soft consistence, lobulated, and has not existed above three or four years, its removal is not generally difficult; but advanced age and long continuance of the growth are not so unfavorable as they were considered in the last century, when some writers narrated cases as singular in which the tumor had been dispersed after the age of twenty-five. Some are now on record in which those of twenty or thirty years' duration have been completely got rid of, under the employment of more modern remedies; amongst others one may be cited in which a large goitre was almost entirely removed in a female seventy years old.*

The therapeutic means to be employed in the cure of bronchocele consist, firstly, in the application of local remedies, either to detract blood from the vessels of the tumor, or to favour the increased action of its absorbents; and, secondly, in the exhibition of medicines supposed to act in a specific manner upon it.

* *London Med. and Phys. Journal*, August, 1823.

Simple compression seems sufficient in many recent cases to disperse the morbid swelling of the gland, and is a common procedure in the Alpine countries both of Europe and Asia, for this purpose. Flajanii, in his *Collez. d'Osservaz. e Rifless. di Chirurg.* vol. iii., relates several instances of successful treatment by compression combined with stimulating pledgets; whilst, in India and other countries, it has been found equally beneficial when applied at an early period of the complaint.

Friction alone has been thought by many modern authors to be still more efficacious, when regularly used; but stimulant oils or ointments will, I am persuaded, much increase its good effects. Electricity, blisters, and stimulating plasters, such as the *Empl. Ammon. cum Hydrarg.*, have in some cases been attended with very good effect.

The topical abstraction of blood by the application of leeches to the tumor is a means which should always be used, before resorting to other more powerful remedies, as it will alone often produce a material diminution in its size. The difficult respiration, and uneasy sensations about the head and throat, are frequently lessened by this plan, and, combined with the employment of emollient cataplasms to the part, will much assist the effects of any specific remedies which we may afterwards employ internally, and predispose the cuticular pores to take up with greater rapidity those substances which we may judge it proper to apply locally. If the poultices are made slightly stimulant, by using equal parts of vinegar and water with linseed-meal, I have found their good effects increased. Blisters I have seldom found of much service, and for some time they prevent our using any other stimulating applications to the part.

Of all the specifics which have maintained a reputation at all, burnt sponge, as I have before remarked, is the principal, and the older medicinal remedies which acquired any fame are now proved to have contained it likewise. Dr. Henenschwand had recommended it unburnt, as equally efficacious, and not liable to the injurious effects which the former occasionally produced upon the stomach. It is a curious fact that Drs. Coindet, of Geneva, and Straub, of Berne, discovered about the same time, in 1820, unknown to each other, that its active principle resided in the iodine which it was found by them to contain, and accordingly, since that period, medical practitioners have used this latter medicine in various forms with remarkable effect not only in bronchocele, but in many other diseases. It is supplied abundantly by kelp, (the *fucus saccharinus* especially,) and was originally discovered in 1811 by M. Courtois, a soap-boiler, at Paris.

Iodine, from what experience I have had myself in its use, and from the mass of favourable evidence by native and foreign practitioners as to its powers, is, I am persuaded, a remedy of the highest efficacy, and that on which we must principally, if not altogether depend, in the treatment of this disease. It is most efficacious in recent cases, and in those where a soft elastic consistence is observable: in others, again, little or no effect can be produced by its use; but of course we are not to consider it an universal specific, but a remedy which will do much good in a great majority of cases. So marked is its power, that in some cases, where its use has been purposely intermitted, and another remedy substituted, the result has been, that no further diminution of the tumor took place till the iodine was resumed. In those cases, which are occasionally met with, where it is difficult to affect the individual with this medicine, I have found small bleedings from the arm hasten its effects in as marked a manner as those of mercurial preparations. Peculiar idiosyncrasies will, in some few instances, prevent its use altogether,—even the vapour of iodine producing very disagreeable effects in them: thus, M. Chevalier, having visited the manufactory of M. Curtois, on leaving it was seized with violent colic and heat of stomach, which were relieved by mucilage and laudanum. He was not aware of the cause which produced these symptoms till some time after, when, having broken a bottle of iodine, and been occupied in collecting it again, the same symptoms reappeared, and were relieved by a similar treatment. At all times, while the patient is gradually increasing the dose of this medicine, we should carefully watch its effects, and point out the periods when it may be prudent to intermit its use for a time. It occasionally produces very dangerous symptoms; and this was often the case on its first introduction among the inhabitants of the Alps; for some of those who were affected by goitre, hearing of the great efficacy of iodine, took it unadvisedly, until the frequent recurrence of serious consequences, resulting from its indiscriminate use, induced the Swiss government to issue an edict forbidding its sale, unless when prescribed by a physician.

These symptoms are more likely to follow its internal use than the local application of it to the tumor; and, on this account, I now prefer commencing with the latter.

In giving the tincture of iodine, or the solution of the hydriodate of potass, I have found more effect in commencing with very small doses, and slowly increasing them, than in administering it in sufficiently large quantities to affect the

system very sensibly in a short time; and in this it bears some analogy to mercury.

I have rarely used the tincture; for I have found it more prone to produce alarming symptoms than the other preparations. Patients, too, often complained of its taste and heat, and in many instances it could not be at all tolerated by the stomach: on this account I for a long time was in the habit of using the hydriodate of potass dissolved in water, (forty grains to the ounce,) commencing with eight drops three times a day, and gradually increasing the dose to twenty. If good effects were to follow the employment of this remedy, I have generally found them to result from this quantity; and, if the dose was pushed further, the stomach and nervous system became deranged, without any corresponding diminution of the tumor. In conjunction with this medicine I almost invariably ordered the external application of an ointment, composed of ζi . Hydr. Potass. to $\bar{\zeta} i$. of Axunge: a portion, the size of a nut, was well rubbed in the swelling, night and morning. I have never observed any disagreeable effects to arise from it; but, were they feared, they might be prevented by the combination of a little extract of opium, or acetate of morphia, with the ointment.

I have before mentioned the difficulty of affecting some individuals with iodine: thus Dr. Kennedy, in one case, beginning with two grains daily, increased the dose to eighteen grains, administering altogether 953 grains to the patient, without producing any sensible effect. Gendrin likewise relates the cases of two individuals of a family, whom he was unable to affect by iodine for the space of two months; but, by substituting one part of pure iodine with two of Phosph. Calcis, and rubbing in daily one grain of this on the gums and tongue, he at last succeeded.*

Of late I have found the form recommended by Lugol by far the best; viz. an aqueous solution of Iodine and Hydr. Potass.: the latter aiding greatly the solution of the former in water, and obviating, as Lugol says, the decomposition which the tincture of iodine undergoes when diluted, and the consequent deposition of the iodine upon the coats of the stomach. It resembles a mineral water when prepared in the following manner, and, although Lugol gives various formulæ of different strengths, in his work on Scrofula, this one will be found sufficient, I think, for practice; the medical attendant increasing the strength as he finds that it is necessary, or that the patient's stomach will bear it.

* Omodei Annali, 1829.

R. Iodinæ, gr. $\frac{3}{4}$. :
 Hydr. Potass. gr. iss.;
 Aq. destill. ζ viiij. M. to be taken in the course of the
 day.

The ointment which is applied to the tumor should consist of twelve grains of iodine, Ḑ iv. of Hydr. Pot., and ζ ij. of Axunge. Lugol has never seen any inconvenience follow the use of this form, and among one hundred females to whom he administered it in the Hôpital St. Louis, and whom he divided into three classes, the following was the result. The emaciated became stouter; the stout remained so; and the last class, who were of a medium size, rather gained flesh than lost it. Professor Brera, of Padua, in his "Saggio Clinico sull' Iodio," says that he has found iodine to emaciate the robust, but that it has the opposite effect upon spare habits. Dr. Gairdner's case has been the means of deterring many practitioners from using iodine to any extent; and this was the case with Dr. Fahnestock, who, by the frequent importunities of a patient affected by bronchocele, was at length induced to try it. The tumor in this case was large, pendulous, of a purple hue, and of eight years' standing, producing considerable pressure upon the trachea, and had resisted all other remedies. Under the iodine it began to decrease in fourteen days, and in the course of a month had entirely disappeared.* I have seldom found it to diminish the healthy glands; it appears to act almost solely on the morbid or adventitious structures, unless when injudiciously and rashly employed.

One remarkable proof of the efficacy of iodine in goitre is, that all the mineral springs in various parts of the world which have gained any great repute for the cure of the disease have been successively discovered to contain this substance. Thus, those of St. Genis, Aix in Savoy, and Castel Nuovo d'Asti, especially the last two, have been long famed for their power, and have, on careful analysis by Professor Cantu, of Turin, been proved to hold it in considerable quantity in solution under the form of an hydriodate; and he is of opinion that all sulphureous springs contain it. Angelini again has explained the long known efficacy of the waters of Sales, in Piedmont, by discovering iodine in them. We are informed by Georgi, that in the Cordilleras there is a spring, the use of which cures goitre in a very short time: "weim diese Leute *einige Wochen* das Wasser eines kleinen in die Anga bey Anginskoi fallenden Bächleins (Rutschai) trinken, so vergehen die Kröpfe, weinn sie nicht alt sind."† Iodine has been found

* American Journ. of Med. Sciences, 1829.

† Bemerkungen auf einer Reise im russischen Reich, im Jahre 1772.

in the springs of Leamington, Cheltenham, and Bonnington, near Edinburgh; and, according to Balard and Pfaffin, exists in the waters of the Mediterranean and Baltic: it is not however unlikely, I think, that it may be found in all sea water.

Perhaps no specifics (if we except mercury in syphilis, and quinine in intermittents,) have met with stronger recommendations than iodine in the cure of bronchocele: both foreign and native practitioners concur in this opinion. Baup cured forty-five cases out of forty-six by its use; Irminger, fifty out of seventy; and Coindet, in twenty-two which he selected, cured all by iodine frictions. Bayle has found iodine a sovereign remedy in goitre; its efficacy, he says, surpassing that of any other. Mons. L. Janson, chirurgien en chef de Hôtel Dieu de Lyons, says, "nous avons retiré des effets avantageux et presque constans de la pommade de l'hydriodate de potasse;" he having, like many others, been obliged to desist from giving the tincture, owing to the irritation of the stomach which it produced. One case he relates of an individual, æt. twenty-three, who had a bronchocele consisting of three distinct lobes, each the size of an apple, where, after applying leeches and cataplasms, by the use of the ointment twice a day, it totally disappeared by the twenty-second day.* Dr. Coster, out of one hundred cases treated by iodine, says that two-thirds were cured; whilst Dr. Jahn considers it a most valuable medicine, and terms it "*un remede divin.*" Dr. Kolley, of Breslau, rid himself of a goitre by its use.

Many eminent practitioners of this country bear testimony likewise to the marked benefits derived in bronchocele from this medicine. Dr. Manson cured seventy-six out of 116, much relieved ten, and seventeen improved under its use. Dr. Forbes, of Chichester, and many others, concur in this favorable opinion; and Dr. Copland, in his valuable Dictionary, says, that of several cases of bronchocele which he has treated with iodine, there has not been one which was not cured, or remarkably improved by it. Mr. Bramley, who has had extensive opportunities of using it in India, out of 116 cases gives fifty-seven cured, fourteen nearly so, thirty-four much benefited, six partly relieved after two months' trial, and five altogether unsuccessful.

There is a fact connected with the administration of iodine which should be kept in mind, and which has, I believe, been observed by others as well as myself, viz. that it seems to be almost inert occasionally for a period, producing little or no effect upon the system; but, by intermitting its use for a short

* Observat. Cliniques.

time, on recommencing it the issue is most rapid and favorable. The good effects in some other cases seem to supervene a short time after discontinuing its employment, similarly to what we sometimes observe in the use of digitalis. In the foregoing remarks I do not allude to bronchocele only; but I have known the same occurrence to take place in ulcerated and scrofulous sores of the neck, which, though resisting the first, were healed as if by magic on the second trial of the iodine. Dr. Copland relates two cases strongly confirmatory of this fact.

Iodine I have found to possess great power over the uterine system; so much so, that I am now in the habit of employing it in some of the functional disorders of this organ, and it may on this account perhaps prove the more beneficial in many cases of bronchocele; the great sympathy between which and the uterus I have before made mention of. It is likewise a tonic of great power, and, when properly administered, invigorates the digestive organs.

When iodine has commenced its action upon this tumour, besides its gradual diminution, which may be most accurately remarked by regular measurements of the neck, the most pressing symptoms, such as the difficulty of breathing and swallowing, seem to subside first. Other symptoms, which might be easily mistaken at first as referable to some disease of the lungs, such as wheezing, hoarseness, palpitations, &c., now disappear gradually: as the improvement progresses, the voice becomes natural, the tumour more soft and elastic, and the patient gets rid of all the disagreeable feelings which had so long troubled him.

On the contrary, when, under its employment, the patient suffers from tremors, giddiness, debility, nausea, or vomiting of a glairy tenacious fluid, severe dragging pains of the stomach, attended by an indefinable sensation of hunger, which increases after meals, the tongue being furred and tremulous, and the pulse weak and rapid, we should immediately discontinue the medicine, and afterwards recommence with very minute doses. In fine, we should as carefully watch the effects of iodine on our patients, during the progress of the cure, as we are accustomed to do with digitalis or arsenic, and never allow them to continue it above four or five days in succession without seeing them, and thus judging whether it is prudent to continue its use.

There are some cases of bronchocele, which, either from long continuance, or from the peculiar structure of the tumour, withstand all medicinal applications, continue to increase in size, and at length are attended with most urgent

symptoms, dangerous to the life of the patient: in these, and these only, recourse must be had to *surgical operations*. These are three in number, which, with their attendant good results and dangers, I will describe as briefly as possible.

Seton. The use of the seton, which was practised formerly, and afterwards recommended by Foderé, has been revived, within a few years past, by Dr. Quadri, of Naples, who relates several cases attended by successful results. He was led to adopt its use from the circumstance of a woman in Naples, afflicted with goitre, having, in a quarrel, received a wound in that part by a pair of scissors: it did not heal rapidly, and Dr. Q., who attended her at the hospital, observed that, owing to the discharge, a gradual diminution of the tumour took place, and it eventually disappeared. Simond, in his *Tour through Italy*, remarks, "I find that at length Dr. Q. found the practice dangerous, and had given it up." Many other surgeons, however, have performed the operation with happy results; among others, Dr. A. T. Thomson, Mr. Copland Hutchison, and Mr. James, of Exeter, though very severe symptoms followed in the last-mentioned case.

In the *Edinburgh Medical and Surgical Journal* for 1832, a case is related of encysted tumour of the thyroid gland, in which simple puncture produced no good effect, but the employment of a seton cured it. Dupuytren mentions two cases which were successfully treated by this remedy after some months; one, however, being diminished to two thirds of its size in seventeen days after the operation. On the whole he prefers it to the other surgical remedies, although the flow of venous blood is occasionally very great. Dr. Flajani, of Rome, likewise thinks it the safest manual remedy.

Accidental purulent discharges have been sometimes produced, as was the case of a blacksmith, which I have somewhere met with, who had a pendulous goitre reaching to his breast, and who, while working, severely wounded this tumour. A great quantity of viscid fluid, with clots and calcareous matter, escaped; the tumour subsided, and suppuration following, a speedy cure took place. Gautieri mentions a similar case of a Cretin who stabbed himself in this part.

The hemorrhage in cases where the seton is used is sometimes of alarming extent, however, and death has been known to follow from this cause. Tetanus has supervened occasionally on this operation, as instanced by Burns, Hedenus, and Beck.* It has been in many cases employed, too, without any benefit as to reduction of the tumour, though no symp-

* *Über den Kropf*.

toms of danger accompanied it. Dr. Monro used to mention in his lectures a case of bronchocele, combined with encysted tumour, in which a seton cured the latter, but not the former. Alibert, in a goitre of large dimensions, made use of it without any good effect. On the whole, however, it is an easier and safer operation than the two following, and may be resorted to in urgent cases, when a fair trial has been given to iodine without relief.

Ligature of the Thyroid Arteries was first performed in bronchocele by Mr. Blizard, in 1809; the tumor being much reduced in size after it, and promising a successful result, when gangrene carried off the patient. Walther, of Bonn, proposed it on the continent, in 1817; whilst Professor Waller, of Landshut, in 1818, and Mr. Coates, of Salisbury, in 1819, performed this operation with success. Mr. Earle, in 1822, published a very interesting case, in which he successively tied the right and left superior thyroid arteries, with great benefit to the patient. It will be found in the London Medical and Physical Journal for 1826. The great alterations of structure during the growth of the tumour, in some instances, render this operation extremely hazardous; causing great difficulty in reaching the vessels, and, as in the case of Mr. Key, at Guy's Hospital, where the operation occupied an hour, a fatal termination may arise from the great constitutional irritation which sets in.* Langenbeck, again, (though in his case the arteries, being superficial, were easily tied,) lost his patient thirty-four hours after the operation, owing to an anomalous distribution of the vessels, from repeated hemorrhages, though the carotid had been tied.†

This operation has been repeatedly since performed successfully, both in this country and abroad, and is a much safer proceeding than that of extirpating the gland. By the former we cut off a great supply of blood from the tumour, and thus gain time for using other remedies; and, should extirpation be at last deemed absolutely requisite to give the patient a chance for life, the difficulties of the latter operation may be lessened by this proceeding. The tumour in some cases diminishes much after the vessels are tied, but in the course of a few weeks regains its original size. This was the result of one related by Dr. Wells, of Columbia, in the American Journal of Medical Science.

Extirpation of the Enlarged Gland is one of the most difficult and arduous operations in surgery, as must be evident to everyone acquainted with the anatomical relation of

* Lancet, Vol. ii.

† Neue Bibl. für Chirurg.

the parts. Above are the superior thyroid arteries, below, the inferior, all much enlarged in their diameter; in front a large plexus of veins; the carotids and jugulars at the sides, or even enclosed in the substance of the tumour; and behind, the recurrent nerves, par vagum, œsophageal plexus, trachea, and œsophagus: added to this, the multiplicity of open and bleeding vessels which require tying during the operation, will convince us that no surgeon, who is not an excellent anatomist, and endowed with great presence of mind, should undertake it. It has, however, according to Paradin and others, been performed solely to remedy the deformity occasioned by it; and the former author relates the fact of a barber who cut an enormous tumour off his wife's neck on this account; but this instance of temerity can never be quoted as an example. Numerous cases of fatal termination, some of which too were on the operating-table, are related by authors as following this dreadful operation. Petit gives us the case of a lady whose goitre interfered rather with her beauty than health, and who was persuaded to have the deformity removed, but died from hemorrhage. Palfin mentions another, of a lady of distinction, on whom the operation was performed by one of the most eminent surgeons of Paris, against the advice of the other practitioners consulted on the occasion: the lady resolved, however, to have it done, and begged them to be present; but, scarcely was the operation finished, when such an alarming hemorrhage came on, that, in spite of every attempt to restrain it, in a very short time it destroyed the patient; and, as Palfin observes, "au grande scandale de l'art, et du téméraire operateur qui contumier à de semblables entreprises n'eut d'autres excuses à alléguer, si non qu'il est toujours louable d'entreprendre les œuvres les plus difficiles, puisque le hasard seconde souvent ceux qui ont assez de courage pour tenter d'y réussir."*

Albucasis relates an instance where the patient died on the table from hemorrhage; and Pelletan, in his *Clinique Chirurgicale*, another, where a bronchocelous tumour of two pounds six ounces was extirpated; the operation occupying an hour and a half, and the patient dying in thirty-five hours after. Of Gooch's two cases, one died eight hours after the operation, and the other was with difficulty saved by constant pressure being kept up on the vessels for eight days by assistants. Klein had a patient die before him; whilst Major's and Dupuytren's cases terminated fatally from collapse.†

On the other hand, several eminent surgeons have pub-

* Anatomie Chirurgicale.

† Journal of Foreign Med.

lished cases on which they had thus operated with very favourable results. Graefe having tied the thyroid artery in a girl of twenty-two, without any diminution of the tumour, she earnestly requested him to excise it altogether: he accordingly, in January, 1820, removed the right lobe, but was then obliged to desist, owing to the violence of the symptoms. In a few months after the girl returned to have the other lobe removed, which was done successfully. The tumour weighed two and a half pounds, and fifty-three ligatures were employed. Hedenus relates six cases in which he performed this operation successfully, but terms it "*periculosa operatio.*"* Desault, Vogel, Theden, and others, likewise narrate cases ending favourably.

The consequent disturbance of the system alone, resulting from the long-continued manipulation among so many large vessels and nerves, must be attended with very great danger, which is heightened by the probability of air finding its way to the heart by some of the divided veins. Magendie relates a case of instant death from this cause; and I witnessed a similar one at the Hôtel Dieu, in which a tumour was removed by Dupuytren from the neck of a young woman, who fainted, as the spectators thought, in the middle of the operation, although she had scarcely lost three ounces of blood. On looking more closely, however, at her, life was found to be extinct; and, on opening the heart the morning after, Dupuytren and some of his assistants affirmed that they distinctly heard the escape of the air. Celsus says, speaking of this operation, "*Sed scalPELLI curatio brevior est,*" and details the steps of it; but so simple are they, that I am of opinion he never could have seen it performed. Boyer concludes the article upon this subject in his *Traité des Maladies Chirurgicales* thus: "*L'extirpation de la thyroïde est au nombre des opérations que la prudence, la raison, et l'expérience désavouent.*"

Mr. Liston, of Edinburgh, in 1830, in one case of tumour connected with the thyroid gland, in which a seton, passed some time before through its centre, had rendered it more dense and immovable, surrounded it by two semicircular incisions, and, dissecting cautiously beneath its base, detached it from its more loose connexions, without interfering with its central portion, and passed an armed needle through its centre, as near the trachea as possible, enclosing the remaining portions by the two ligatures, which removed them by sloughing: the hemorrhage was too profuse to allow his continuing longer with the knife. The patient was dismissed in six weeks, cured of all his previous distressing symptoms.

* De Gland. Thy. Extirp., 1822.

Dr. Beck relates six cases of *Struma Cystica*, which he successfully treated by employing the following method. He laid bare the gland, and then removed several laminæ from it by the knife, so as to expose the cyst; an opening was made into this, and a portion of lint, covered with some stimulant application, inserted into it, so as to bring away the sac, &c. by suppuration. This is very similar, however, to a process recommended long since by Celsus, and more recently by Callisen. It would seem to be liable to the double dangers recounted as having followed both excision and the seton.

Simple incisions into a bronchocelous tumour have been sometimes followed by fatal results, as instanced by Flajani and other authors; and the application of caustic substances has, in similar manner, occasionally caused fearful sloughing and hemorrhage.

Too broad a line has, I think, been generally drawn between bronchocele and encysted tumours of the thyroid. Few of the former extend to any great dimensions without containing a cyst in some part of their substance, especially in accidental goitre: this arises from the rupture of several of its cells, gradually forming one large cyst, and is of course much more distinct when occurring near the surface. I have never seen one without an accompanying enlargement of the thyroid gland, and, in removing them by excision, we often find that the operators are somewhat embarrassed by their strong adhesions to the gland, and by the profuse hemorrhages which often follow this apparently simple operation. Incision is likewise frequently made into them to evacuate the contents, when a large venous discharge occasionally causes some alarm to the operator, lest he should have wounded one of the principal vessels; but this gradually stops, showing however the intimate connexion with the vascular and tumefied gland. On examining some of these tumours after excision, I have known them to consist not of one cyst, but of several cells, partly filled with clotted blood, and partly with a dark-coloured fluid.

The application of *Escharotics* to the external surface of the tumour is a proceeding fraught with much danger. The case related by Dr. A. T. Thomson of a woman who, on the recommendation of a friend, applied a plaster of quicklime to her bronchocele, is sufficient to point out the hazard attending this plan; though here fortunately the immense sloughing did remove the swelling, the patient narrowly escaping with her life.

Cautery was recommended by Paracelsus; but, if any surgical means are to be adopted when the disease absolutely requires them, either of the first two operations should cer-

tainly be tried; and, should they not succeed in putting a stop to the growth, the desperate, though sometimes successful operation of extirpation, is unavoidable, should the patient himself be anxious for it.

CASES.

I. February 21st. Miss A., æt. seventeen, of a leucophlegmatic temperament, but enjoying tolerably good health, perceived, six months since, a small swelling in the central and lower part of the throat, which gradually increased in size till within two months. At this period its progression was much more rapid. There is no pain on pressure in the tumour, which is externally about the size of a hen's egg, but more irregular in its form, extending laterally. Her breathing is much hurried on the least exertion; catamenia regular as to time, but not in quantity, inclining sometimes to menorrhagia.

She commenced taking eight drops of the iodine three times a day in a little water, and rubbing in a small portion of ointment, composed of ℥ss. of Hydr. Potass. to ℥ss. of lard. In ten days the tumor was evidently becoming much smaller. The medicine was gradually increased in quantity, but discontinued again for some days, owing to its producing headach and other uneasy sensations. The ointment was afterwards used in the strength of ℥i. to the ℥i. In two months there was scarcely a vestige of the tumor to be seen.

II. August 15th. Mrs. C., æt. forty-five, a native of Shropshire, of healthy temperament, about twenty-four years since, when in an advanced state of pregnancy, received a severe fright from having seen the surgeon's hands covered with blood, after having performed some operation on her husband. She fell into an hysterical paroxysm, and a few days after first perceived a swelling in the throat: she almost daily had hysterical fits, sometimes to the number of eleven or twelve. At the end of three weeks she was confined, and the neck now presented a still greater fulness.

About twenty-one months after this she had a very protracted labour, and during it she perceived the neck to become unusually enlarged, and after this it continued slowly to increase. Two years since she had a miscarriage; the catamenia have not appeared since, but the growth of the tumour rapidly increased after their stoppage.

On examining the neck, a tumour, the size of a large orange, is seen exactly in its centre, of rather a soft nature, the left lobe being the part least affected. There is slight pain on pressure; respiration hurried after any exertion, and in damp weather. She is subject to giddiness and headaches, and hysterical feeling of suffocation about the throat supervenes on any agitation of mind.

September 1st. Six leeches were applied to the tumour, followed by a cataplasm and an aperient mixture. Immediately after the application of the leeches she felt faint, and the catamenia appeared

after two years' absence. She commenced then with taking ten drops of the Solut. Hydriod. Potass. (ʒij. to the ounce,) three times a day, and using the ointment (ʒi. to the ounce.)

14th. Having increased the dose to twenty drops, without directions so to do, she in a few days complained of dragging pains in the stomach, great headach, giddiness, trembling, and depression of strength. Bowels costive, and great pain on passing fæces; blood sometimes accompanying them. Tumour less in size; pulse weak, but regular.—She was ordered to take an ounce of castor-oil; omit the drops; treatment continued.

18th. The foregoing symptoms nearly disappeared; tumour much reduced, having now the appearance of a central small lump, with lateral projections.

October 4th. Tumour still more diminished, but she finds a temporary enlargement occasionally from mental agitation. She was obliged to discontinue the ointment for some days, owing to a return of the symptoms, but has recommenced its use.

November 20th. Tumour now reduced to a very small lump, which does not incommode her.

The iodine seemed to affect this patient's constitution speedily, producing its bad effects occasionally; but as, from circumstances, she suffered much in mind at this period, that perhaps might have caused this predisposition.

III. February 19th. Thomas Cogswell, æt. thirty-one. Has a circular tumour at the front and lower part of the neck, of a firm nature, attended with much pulsation, and is about two inches in diameter, the right part being the larger. It made its appearance about two years since, but he can give no other history of it, as it did not cause pain or inconvenience. Pressure on it gives no pain, but much throbbing is felt after meals, or on lying down.—Hirud. tumori. Tr. Iodin. et Ung. Potassæ Hydriod.

March 8th. Has used the drops a fortnight, and the ointment for a week past, and the tumour is not so large as it was. He can now lie down without the disagreeable throbbing, nor does it come on after meals now.

18th. Tumour about the same size; complains somewhat of giddiness.

25th. Swelling much reduced in size; sleeps better than formerly.

This patient continued the use of the iodine, with occasional intermissions, till June, when the tumour had nearly disappeared.

IV. April 3d. Elizabeth Newberry, æt. twenty-one, native of Berkshire, of leucophlegmatic habit, says, that a month after her birth she was taken to a surgeon by her mother, on account of a swelling in her neck, and again when she was nine years old. It has gradually increased since that time. Does not enjoy good health. There is a general fulness of the throat between the sterno-mastoid muscles. The right side is the largest part of the

tumour, extending nearly to the submaxillary bone upwards, and descending to the clavicle and sternum. On it, about half an inch from the sternum, is a small encysted lobule, the size of a chesnut. The swelling is tender on pressure at the left side, and the centre and right parts are so very painful that she cannot bear the least pressure with the finger. Respiration difficult, with choking sensation after meals; and she is unable to take any food which is hard, or requires much mastication. This same sensation, with violent throbbing, comes on when she lies down, and she is obliged to sleep with a very high pillow. Exertion distresses the throat much.

After applying leeches and a cataplasm, she commenced taking the Solut. Hydr. Potass., and using the ointment. The tumour became much reduced in size, and not so tender on pressure; she could eat meat, though not without difficulty; but she was not able to do so at all previously. She was attacked by an illness, which prevented her using the remedies for a time; but, on recommencing them, the tumour was still further reduced in size; but, as she was obliged to return to the country, I lost sight of her before it had disappeared.

v. May 12th. Matilda Green, ætat. forty-nine, a native of Berkshire, for the last six years has had a tumour, soft in its nature, forming on the right side of the neck; and, on examining it, the right lobe of the thyroid is found to have increased to the size of an apple. She mentions that her husband is similarly affected. Complains of difficulty in swallowing, but not in breathing: this has been the case for five months past, especially within the last week, and she is much troubled with giddiness. This patient used the solution only, without the ointment, and in the course of a month the tumour was very much diminished, as was the difficulty of swallowing.

vi. June 13th. Hannah Kennett, æt. twenty-two, native of Hanley, Worcestershire. Had always a full neck, but three years since a small tumour made its appearance in the situation of the thyroid gland, which has gradually increased since. It was at first painful; it is now the size of a small apple, occupying the whole of the gland, and of a soft texture, causing no uneasiness when touched, and not so lobulated as I have generally remarked this kind of swelling.—Ointment and drops.

24th. Much reduced in size.

July 4th. Still greater diminution. Has only used the ointment this last week. Whenever she catches cold she feels great uneasiness at this part, and can never wear anything tight round it.

14th. The tumour is nearly even with the surface of the neck. She remarks, that, when she lifts heavy weights, the throat feels very uneasy.

31st. Goes to Worcestershire tomorrow. Tumour scarcely to be felt.

VII. April 24th. Miss S., æt. sixteen, native of Colchester, caught cold two years since, and had ulcerated sore throat, with great difficulty of swallowing; she soon after observed a swelling on the central and right part of the throat, which gradually increased in size, and got round to the left side likewise. About six months since she came to London, and it has increased more rapidly during that time, the neck now measuring one and a half inches more than it did on her arrival. Has been occasionally much troubled with hysterics.

April 24. The tumour is at present the size of an orange, but larger at the right corner; it is not painful to the touch. It enlarges occasionally, when she catches cold, for a few hours, and generally is more full towards the evening; no difficulty in swallowing or breathing at any time, except when she catches cold.

May 11. Not much difference in the tumour, although she has been taking the drops, and using the ointment.

June 20. Tumour smaller and softer, but varies much more than I have ever observed in any other case: thus, a short time ago, in the morning, she found that it had decreased an inch in circumference since the preceding evening, and continued so for two days, when it as suddenly assumed its former size.

By persevering with the Hydr. of Potass. the circumference of the neck very materially diminished, as a letter from her in Colchester informed me, and she had completely lost that soreness which before used constantly to attend the slightest cold.

This patient's sister had likewise been affected with a bronchocele about the same size, which was removed by burnt sponge and local applications.

VIII. Mrs. E., æt. twenty-eight, native of Herefordshire. August 10th, 1829. About last Christmas she experienced a sensation in the throat as if she continually wanted to swallow. Taking a little brandy and water relieved this feeling much, and it disappeared at one time for a month; since which period, however, it has gradually got worse, as has the swelling about the part: in two months after this she began to experience shooting pains from the neck to the shoulders, up to the ears, and extending down the left breast under the clavicle, and they are now becoming worse. There is much throbbing on the right side of the neck after exercise. On lying down, she finds all the unpleasant symptoms increased, as they likewise are after meals, especially when she eats bread. Health pretty good, but the uterine function not regular, and she is much troubled by palpitation of the heart.

On examining the neck, there is a large flattened tumour occupying the situation of the thyroid gland, which is not very prominent, but follows the movement of the larynx in swallowing; it projects most on the right part, forcing out the sterno-mastoid muscle, under which it lies on either side. The right lobe varies in size, and she occasionally feels great numbness in the right arm, attended by a dark colour of the fingers. There is pain on pressure,

and she sometimes experiences great sense of suffocation, principally when she goes long without food. No difficulty in swallowing. The size of the tumour, she says, is increased occasionally for an hour or two after dinner, and then subsides.

This case seems to present all the appearances of the *Goître en dedans*.—Hirudines vi. Solutionis Potassæ Hydrïod. gtt. x. ter in die.

August 25. The swelling in the forepart of the neck is greatly reduced, and much softer. The sensation of swallowing, pain and uneasy feelings after meals, relieved in some degree. Throbbing and palpitations less. Catamenia very scanty this week.—M. xv. ter in die: to commence with ointment.

September 1st. Swelling still more diminished. The necessity of continually swallowing had disappeared for two days, but has since returned, though not to such extent as before: twenty drops.

8th. Within this last week great improvement; only the right lobe, in fact, is now to be felt, and that but slightly; the pain in left breast is much diminished; there is not so much throbbing; no numbness in the right arm; and lying down does not distress her. Passes occasionally two hours without any uneasy sensation in the throat. Pulse full; appetite very great. Complains of slight pain in stomach and tremulousness lately.—Omit the drops.

14th. Still uneasy feeling about the stomach, but, like other patients, cannot fully describe it: somewhat like hunger, but increased after meals.

October 8th. The uterine system is still disordered. At those times when the catamenia appear, though scantily, the throat is always more uneasy. There is now no appearance of tumour, but she still occasionally feels uneasy sensations about the part. The latter, however, disappeared likewise in the course of another month.

The four following cases benefited at the commencement under the employment of iodine; but, as I saw them at a public institution, and could not secure their regular attendance, I had not the opportunity of witnessing a removal of the tumour by its use.

ix. Elizabeth Trip, æt. eighteen. Has an enlargement of the thyroid gland, extending from the top of the sternum to the angles of the jaw. It has a soft doughy feel, and includes the whole of the gland. She has had a swelling at this part, she says, ever since she was a child, but it began to increase more rapidly when she was thirteen; there was no peculiar change at sixteen, when she menstruated. She is a native of Buckinghamshire (Bleadlow), and informs me that there are a great number of persons in those parts with similar tumours. This patient is of a healthy sanguine temperament, and the only inconvenience is from respiration being impeded occasionally, and from her *not being able to swallow any firm substance but with difficulty*.

x. Sarah Hutchinson, æt. thirty, has had a tumour as long as she can recollect in the front of the throat, but no inconvenience from it till after the birth of her first child, ten years since. She had a very severe labour, and tried to stifle her cries, as her husband was at the time lying very ill in the next room; œdema of the whole neck took place, which abated by next day, but the tumour began to increase more rapidly. Each succeeding labour augmented its size. After the fifth she found great inconvenience in breathing and swallowing. These symptoms have gradually increased, and at times respiration is nearly impeded altogether. The fifth child had great swelling of the neck at its birth, but it has since disappeared. This patient comes from Derbyshire, and mentions that the women there have to go a very long distance generally for water, the springs being on the hills, whilst the habitations are chiefly in the vallies; and she attributes this affection to having thus carried heavy weights daily on her head for miles. It is a curious fact, that she finds the tumour reduced somewhat in that county, and it increases again on coming to London. She has been subject to hysterics, and laughing, crying, &c. always produce difficulty of respiration. The tumour, which is of considerable size, appears distinctly lobulated, lying between the two sterno-mastoid muscles, with a clearly marked division of the central and two lateral lobes. Compression on the latter produces an immediate sense of suffocation.

xi. Hannah Esdaile, æt. twenty-nine. Has a small defined tumour of the right lobe of the thyroid, and occasionally experiences much shooting pains in it, especially on pressure; but respiration and deglutition are not affected. She first perceived it two years ago, after her first confinement, and it has gradually increased since, within this last fortnight especially. She is now three months advanced in pregnancy. Used the ointment only, and with good effect, as long as I had the opportunity of seeing her.

xii. Lydia Fawk, æt. twenty-five, native of Herefordshire, of a healthy constitution. About five years since perceived the front part of the throat to become more full than formerly: this increased gradually for a year, at the end of which time she removed to Olney, in Buckinghamshire, which she says lies damp and low, and where very many of the inhabitants are troubled with this disease. It now began to increase rapidly, and her breathing became much affected, attended with palpitations. The tumour occupies the central and left lobe of the thyroid, presenting a round elastic surface of a soft texture.

xiii. Mrs. J., æt. fifty-one, native of Sutton, in Hampshire. Has a large tumour completely in the centre of the neck, which is very soft to the touch. It made its appearance after the birth of her first child, and has gradually increased since. She has had two sisters likewise affected with it; one of whom, she says, had it

whilst an infant, and it is now of very large size; the other, who is now seventy-four, has it still larger. Neither of them experiences any inconvenience from it. She does not know any other person in Sutton suffering under it. Another family who use the same well-water as themselves are not subject to the complaint. The solution of Hydriod. Potass. and the ointment had the effect of much diminishing the tumour in the course of a month.

For the following case I am indebted to the kindness of Mr. Maurice, of Marlborough. The preparation is in the Museum of Mr. Pilcher, and a cast of the tumour I forwarded to that of the College of Surgeons.

xiv. Lucy Osmond, at the age of eleven years, became the subject of bronchocele, and which increased for five years, though not to any material size; at the expiration of that time it grew very rapidly, and at eighteen exhibited the following appearances: Her head appeared buried in the tumour, which, from its size, and consequent pressure, threatened her with suffocation; her respiration was very laboured, and on the least exertion distressingly difficult; deglutition not impaired; headaches. The carotids are pressed on the outer part of the tumour, and pulsate strongly. The circumference of the whole neck is twenty inches, and the three lobes are distinctly marked. The tumour measures outwardly thirteen inches and three quarters, and projects beyond the sternum three inches, hanging an inch and a quarter below it. The tumour is still rapidly increasing, and respiration becoming more difficult; requiring some instant relief. The displacement of parts prevented the operation of tying the vessels, internally and externally. She commenced the use of iodine on November 3d, and in a fortnight great relief was obtained. At the expiration of three months the tumour had diminished an inch in every direction; and she continued the iodine for twelve months, with increased absorption of the tumour, and without detriment to her general health; at this period, however, it gave way; the long continued use of the iodine seeming to affect her powerfully. She became much emaciated, and the absorption of the tumour was now also wonderfully rapid. She died in April, eighteen months after commencing the before-mentioned treatment. An inspection of the tumour, or cast, will shew its great size, even at this time. Mr. Maurice has hardly ever found iodine to fail in common cases of bronchocele.

The following was obligingly forwarded to me by Mr. Miskin, of the Horseferry road. A cast of the tumour, which I sent likewise to the museum of the College of Surgeons, shows how small a size is sufficient to cause death, when extending behind the trachea.

xv. A poor woman, residing in the Kent-road, complained of the following symptoms: Great difficulty of breathing, with rising in the throat, attended with frequent desire of swallowing, as if she

had some substance there which she could not get rid of. Frightful dreams disturbed her at night, and she had profuse perspirations at that time, attended with feelings of suffocation. Slight cough, white furred tongue, and costive bowels. Not confined to her bed more than a fortnight. Sixteen leeches were applied to the throat, and purgatives were exhibited three days afterwards; the leeches were repeated, and a blister was placed over the affected part. The tincture of iodine was then given, but on the fourteenth day she suddenly expired, with symptoms of suffocation.

The length to which this article has already extended prevents my inserting other cases, in some of which I did not find iodine produce any marked good effect, though continued for some time.

To the Editor of the Medical Quarterly Review.

SIR: Should the following short account of a case, which appeared during life to be only a case of hydrocephalus, be deemed interesting, it is very much at your service.

I am, sir, your obedient servant,

JOHN HOWSHIP.

21, *Saville Row*; May 20, 1834.

A Case, in which a Collection of Fluid and Coagulable Matter, to the amount of several Pints, took place between the Membranes of the Brain.

July 12, 1826. In presence of Dr. James, Dr. Elliotson, and Mr. Holberton, I examined the head and body of James Gulliver, aged four years, who had died in St. George's Infirmary, with hydrocephalus, as was supposed. The little boy had enjoyed good health till about six months old, when enlargement of the head commenced. I saw him a few months before he died, and, with the exception of the enlarged state of the head, his health then appeared excellent: he was lively, and particularly intelligent, and his mother said that the child's intellects were exceedingly bright. He had sunk, and died, from irritable and relaxed bowels.

The head, at the time of his death, measured twenty-eight inches in circumference.

On removing the calvarium, although the opening of the fontanelle was not closed, the skull was in most parts as thick, though not so hard, as it is usually found at the age of twenty years. The dura mater was most firmly attached to the inside of the cranium. In fact, the difficulty in separating them induced me carefully to cut through the right side of the dura mater, in order to detach the superior portion of

the skull, when we were surprised by the flowing out of a quantity of turbid bloody serum. The calvarium, with the dura mater, removed, we after some time ascertained what appeared to be the true state of the case.

The dura mater lining the superior part of the skull was much thickened; externally, at certain points, discoloured, inflamed, or of a lurid tinge; and internally covered, on every part of its surface, with a layer of coagulable lymph; and within that, on most parts, was a quantity of a loose albuminous secretion, of a brick red colour, exactly similar to that of the serous fluid with which the large space within the dura mater was filled. The grumous appearance of the albuminous deposit was apparently derived from the colouring matter of the blood.

The convex floor of this extensive cavity, which occupied the whole of the superior and lateral parts of the skull, was also thickly covered with this loose, grumous deposit, of which I collected and laid aside at least one pound. On dividing this convex floor, it proved to be the arachnoid membrane and pia mater, beneath which lay the brain, of healthy structure, though disturbed, from the two lateral ventricles being thrown into one cavity by a collection of serum. The ventricles contained as much as eight or ten ounces of transparent fluid, slightly tinged with the bright crimson colour of arterial blood; affording a very striking contrast to the dirty brick-coloured deposit external to the brain, although the colour in both fluids must have been derived from the same source and principle.

The entire quantity of fluid collected from within the head measured four and a half pints. It was curious that there was not the least trace of purulent matter found in the course of the examination.

The general opinion of the gentlemen present appeared to be, that the whole of the disease had originated in the arachnoid membrane, although in health it possesses no red vessels, and although, even in the present case, the expansion of the arachnoid lining the cavities of the ventricles was free from any trace of disease. My own impression, however, rather induced me to refer these exceedingly unusual appearances to some inflammatory action in the dura mater, seeing that the whole of the internal surface of this membrane, and this membrane only, was covered by a layer of effused fibrine, while its external surface was discoloured, from augmented vascularity; and seeing also that even the increased deposit of bone in the cranium was such as might be expected to attend not only a state of considerable, but of long-continued

vascular excitement in that membrane, the blood-vessels of which may be regarded as the more immediate agents in the formation of the bones of the skull.

I have frequently seen copious effusions of flocculent or of laminated fibrine from the inner surface of the dura mater, and have also occasionally observed a modified effusion of fibrinous matter on the outer surface of the tunica arachnoides; but the violence of the action in the one case, contrasted with the partial and sparing result in the other, only tends to strengthen the probability that, in the present instance, the most remarkable appearances were induced by some increased action in the vessels of the dura mater.

I carefully removed and injected the alimentary canal; but, on subsequently opening and examining the internal surface, I only detected four or five small, sloughy, ulcerated spots, the size of coriander-seeds, in the transverse arch of the colon. The other viscera were healthy.

Case of Strangulated Hernia, with Adhesions to the Sac.

By JOHN VALENTINE, M.R.C.S.

ON Monday, April 20th, 1829, I was called to Jonas Pyke, ætat. seventy-two, residing at West Charlton, three miles distant from this town. On examination, I found he had a scrotal hernia, with which he had been afflicted the last forty years. It appeared to be formed of omentum and intestine, and had been partly reducible at times, but now was altogether strangulated, attended with constipation, tenderness of the abdomen, &c.; which symptoms had existed ever since the preceding Saturday. I immediately attempted to reduce it by the taxis, but failed. His pulse being full and hard, I was induced to bleed him *ad syncopen*, in which state I also attempted the taxis, but again failed. Under these circumstances, and considering the length of time the strangulation had existed, I proposed the operation, which being assented to, I performed it in about half an hour after.

Having opened the sac, I found a considerable quantity of omentum and mesentery completely agglutinated, and adhering in every direction to it. I then made a small incision at the bottom of the mass, introduced a director, and laid it open up to the ring, which exposed a knuckle of intestine, (the ileum,) of a dark brown colour, which I endeavoured to replace, but could not effect it. I then, by means of a common probe-pointed bistoury, with a gently conducted sawing motion, divided the stricture at the external ring; after which the intestine was easily reduced. Reflecting on

the advanced age of the patient, and the circumstance of the hernia not being ever wholly reducible, (at least for many years,) I brought the edges of the incision together, without cutting off the omentum, or returning it into the abdomen; a practice occasionally adopted by some eminent surgeons. The poor old man bore the operation well, and expressed himself relieved by it; he was placed in bed, and small doses of castor-oil were given him at intervals.

I visited him the next day, and was informed that he had had two motions, but still complained of tenderness of the abdomen; his pulse was strong, and rather full. I took away a pint of blood, and directed ten leeches to be applied on the right side, just above the incision; which measures had the best effect, and he had not an unpleasant symptom after. The wound healed in a very short time; he perfectly recovered, and is now living.

Mr. Brodie, in one of his clinical lectures, sanctions the above practice. He is reported to have said, that excision of the omentum ought not to be performed in all cases; and that, in cases where there is not a very large quantity of omentum in the hernia, but where it is extensively adherent to the surface of the sac, it is safer to leave it where it is found, than to cut off a portion of it, or to dissect through the adhesions. The success of this practice, in two cases which he relates, is certainly in its favour. The patients are left as well off as they were before the strangulation took place, and probably better; inasmuch as it is most likely that the omentum, after the operation, must have contracted adhesions to the hernial sac, making them less liable to a descent of the intestine.

The sentiments of the late Mr. Hey coincide with those of Mr. Brodie. In his valuable work on Surgery are the following remarks on the subject in question.

“When the portion of omentum which is prolapsed is in a sound state, of little bulk, and strongly adherent to the hernial sac; and when, from inquiries made of the patient, we learn that this small part has been prolapsed for many years, without disturbing the functions of the abdominal viscera, we may fairly conclude that we shall not injure those functions by leaving such a portion in its prolapsed state. In such a case I have suffered the omentum to remain, and have found no difficulty in healing the wound, nor any injury afterwards from the application of a well-adapted truss. In one patient I left a portion, which I judged to be about two ounces avoirdupois in weight, which was the largest portion

that I have suffered to remain. The wound was healed at the expiration of six weeks after the operation." (*Practical Observ. in Surgery*, p. 171.)

Somerton, Somersetshire; June 10, 1834.

—

To the Editor of the Medical Quarterly Review.

SIR: So much effrontery has been of late so systematically shown, in claiming for Sir Charles Bell, at my expense, credit to which he is not entitled, that I am driven to request you will oblige me by inserting the following statement upon the authorship of the modern discoveries respecting the uses of the nerves.

I am, sir, your obedient servant,

HERBERT MAYO.

Some time before 1812, Sir Charles Bell printed and distributed an *Essay on a New Idea of the Brain and Nerves*: a copy of this essay is in my possession. In this essay he describes experiments upon the spinal nerves, which, combined with anatomical observations, led him to adopt the following opinions:

That the anterior roots of the spinal nerves, the anterior columns of the spinal marrow, and the cerebrum, are for sense, volition, and the other affections of consciousness.

That the posterior roots of the spinal nerves, the posterior columns of the spinal marrow, and the cerebellum, regulate growth, nutrition, the sympathies of parts, and the like.

In the *Philosophical Transactions* for 1821, a paper, by Sir Charles Bell, was published, being the first of a series, on the *Uses of the Nerves*. In this paper Sir Charles Bell asserted the existence of a set of *superadded* or *respiratory* nerves, which he described as different from the nerves of sense and deliberate voluntary motion, and as channels for conveying the stimulus to muscular action in breathing, and bodily expression. In the face, he said, that the infraorbital and mental branches of the fifth were for sensation and deliberate volition, and that the branches of the seventh formed the superadded or respiratory nerves.

An account of these experiments was published by Magendie, in his *Journal of Experimental Physiology*, for October, 1821, in which he adopted Sir Charles Bell's views as to a supposed respiratory system; although one experiment upon one branch of the fifth nerve did not, upon its repetition, appear to him satisfactory. Magendie's words are these:

“Nous avons répété ces expériences à l'école vétérinaire

d'Alfort, avec MM. Shaw et Dupuy; et le résultat que nous avons obtenu *s'accorde parfaitement avec celui que nous venons de rapporter*, à l'exception toutefois de l'influence de la section *du sous orbitaire* sur la mastication, influence qui n'a pas été évidente pour moi."

It thus appears that the examination of Sir Charles Bell's theory left Magendie in no doubt as to the use of the seventh nerve being what Sir Charles Bell asserted.

In August, 1822, I published, in the first part of my Anatomical and Physiological Commentaries,* a refutation of Sir Charles Bell's theory, that there exists a distinct set of superadded or respiratory nerves. By varied experiments, I proved that the facial branches of the fifth are nerves of sensation alone, and that those of the seventh are nerves of voluntary as well as of instinctive motion. I further observed, that other branches of the fifth, those, namely, distributed to the temporal, masseter, and pterygoids, must be voluntary nerves.

In following out the latter idea, I came upon the fact, and its physiological bearing, that the ganglionless portion of the fifth is distributed to the muscles just named. I was thence led to conjecture analogically the existence of the true difference of function between the ganglionic and ganglionless roots of the spinal nerves; and I engaged myself in making experiments to establish the justness of my conjecture.

Sir Charles Bell now likewise came upon the same idea. In his first paper in the Philosophical Transactions, it is indeed demonstrably clear that he had not at that time the smallest idea of this difference; and that his views upon the subject had not improved since his early experiments, published before 1812. But now, I repeat, Sir Charles Bell and myself were both intent upon finding evidence to prove the conjectured uses of the double roots of the spinal nerves.

Before, however, either of us had succeeded in proving the fact, Magendie, by ingeniously using very young animals in his experiments, succeeded in obtaining a positive result, and in realizing the discovery, which is honestly his.

To Sir Charles Bell's various publications, in which he claims or assumes credit for discoveries to which he is not entitled, the following words of Seneca would form an excellent motto :

" ISTA PRO INGENIO FINGUNTUR, NON EX SCIENTIÆ VI."

King's College ; June 3, 1834.

* I beg to refer the reader to this work, and to my "Outlines of Human Physiology," Third Edition, 1833.

COLLECTANEA.

PATHOLOGY AND PRACTICE.

ON THE CIRCULAR AND FLAP OPERATIONS.

THERE is a curious article in the American Journal for February, 1834, in which the relative merits of these methods of operating are estimated on geometrical principles. Dr. Tolefree, the author, offers some objections to a statement made by Sir George Ballingall, as to the relative quantities of cut surface exposed in the circular and flap operations.

Sir George, it seems, with the help of two mathematical friends, has come to the conclusion that these surfaces are nearly in the ratio of 7 to 15, and hence argues in favour of the circular method. His reasoning is founded on the following suppositions: that the areas exposed are respectively those of a circle perpendicular to the bone; and of an ellipse whose major and minor axes are as 2 to 1, which will be the case if the length of each flap be equal to the breadth of its base.

Dr. Tolefree, on the other hand, contends that this length of flap is greater than is recommended by the most violent flappists; and that even the warmest votaries of the circle admit the advantage of two incisions, one a little behind the other, instead of a single one, so as to give the stump the shape of an inverted cone; the superficies of which, as he justly argues, would be considerably greater than that of a mere circular section of the limb; in fact, if it were rectangular, even taking Sir George's account of the flap, the ratio of the surfaces would be 47 to 56, or about 4 to 5; and the argument in favour of the circular incision must of course be reduced in the same proportion.

It should however be observed, on the side of Sir G. Ballingall, that the *cut*, as distinguished from the *exposed* surface, would still be that of a circular section, an argument of some weight where the feelings of the patient are to be consulted; for, instead of a whole circle, it will now consist of two circular rings in parallel planes, one behind and within the other, down to the bone. Moreover, though we admit, with Dr. Tolefree, that "the reader, in this computation, must not forget that those who calculate in the manner of Sir George Ballingall base their reasoning on the supposition that the stump of the bone is cut in a pyramidal shape, when, the truth is, it is the same as in the circular operation;" (p. 373,) we suspect that he has forgotten, on his own part, a certain proposition in the fifth book of Euclid, about the effect of taking equal parts from quantities which bear to each other a ratio of less inequality. He also seems to have forgotten that the contraction which takes place after the cut must draw the base of the afore-

mentioned cone into a smaller circle, and thus modify the computation of its surface once more in favour of Dr. Ballingall, considerations which so minute a critic should not have failed to notice.

Our own opinion is, that the contraction of the soft parts, including the skin, practically does away, in a great measure, with any supposed advantage of the flap operation. We once saw this strikingly illustrated after an amputation of the humerus: the skin, partly by its own contractility, and partly by its adhesion to the edge of the retiring muscle, was drawn smoothly in, all round, so much as almost entirely to cover the face of the stump before the dressing was applied: and the same thing takes place in amputations of the thigh, though not perhaps to the same extent, or so soon as in the case we have mentioned; particularly when the limb is removed soon after an injury, while the skin is healthy, and, with the other integuments, retains its natural state of tension.

The advantages of this operation over the flap are, that it is shorter and less painful; that it saves a thicker mass of flesh to cover the end of the bone; that it exposes, at any rate, a less extent of cut surface; and, above all, that it requires a very much less extensive division of the skin; a point, which, though not adverted to by either party, (at least, if we may judge of Dr. Ballingall by Dr. Tolefree's extracts,) we do not think it necessary to prove by a tedious rectification of the ellipse formed by the periphery of the double flap.

We cannot refrain from adding our belief, that the well-doing of a stump depends much more upon light and careful dressing, and upon efficient attention to the health of the patient both before and after the amputation, than upon the choice exercised as to the particular mode. For proofs of this we would appeal to the comparative result of cases managed at our large hospitals by any attentive dresser during the first and last part of his period of attendance; and to the mortality and deformity noticed in cases of this kind at the Paris hospitals, as contrasted with the general success observed in our own.

CONDYLOMATA CURED BY CREOSOTE.

Dr. Fricke, director of the surgical division of the Hamburgh Hospital, has tried the external use of creosote with great success, in the most obstinate forms of condylomata. The pointed ones, which are the most difficult to remove, were touched with a hair-pencil dipped in diluted creosote. This whitened the surrounding parts, but only temporarily, as the whiteness generally disappeared within half an hour. The condylomata themselves did not change colour till after the lapse of a couple of hours, when they became white, or sometimes brownish. In twenty-four hours a part of the condyloma had died off, and lay upon the remaining portion, or hung from it. The cuticle also died off, but was immediately replaced by a new one, so that there was nothing like excoriation to be seen. Small condylomata disappeared after one or two appli-

cations, but large ones required more. Some few very obstinate cases were not cured in less than a fortnight or three weeks: but once removed, the condylomata never returned.

Should the efficacy of creosote in this disease be confirmed by other observers, it would be an inestimable remedy, as it removes the excrescences without excoriating the neighbouring skin. This cannot be said of any other remedy hitherto known. Those which we consider drying applications, such as the Extr. Saturn. (Goulard's wash,) act in a totally different manner. Dr. Fricke has not seen any particular effect produced by creosote when applied to ulcers, cancers, fungus hæmatodes, &c.—*Abridged from the Wochenschrift für die gesammte Heilkunde.*

IN WHAT DOSE SHOULD DIGITALIS BE GIVEN?

We had thought that this question was long ago settled, and that those who ventured on the administration of this tremendous medicine were content with doses of half-a-grain or a grain three times a day. It would appear, however, from two papers, by M. Joret, in the *Archives Générales* for January and March, that, in the Hospitals of Paris, it is a common thing to give a patient ten or fifteen grains of powdered digitalis in a day; and in one case the dose was carried to forty-eight grains! In another series of cases the aqueous extract was given, in another the alcoholic extract, and in another the ethereal extract. In the fifth series of cases the digitalis was used in infusion, administered by the mouth and per anum. In one instance the infusion of three ounces and twelve grains of the fresh leaves was taken in eight days. These enormous doses frequently excited colic or diarrhœa, and still more frequently the most violent vomiting. No one of the patients, however, died. The author adds three cases, treated by M. Gendrin, at the Hôtel Dieu, in two of which the termination was not so fortunate. They will be a valuable addition to the next edition of Dr. Christison's work.

CASE I. A man, about forty-five or fifty years old, strong and robust, was admitted into the Hôtel Dieu, with a quick pulse, and all the symptoms of hypertrophy and dilatation of the heart. M. Gendrin prescribed, on the first day, a potion made with an infusion of half a drachm of the dried leaves of digitalis. The next day the patient said that he was better, the pulse was slower, and he had suffered from nausea in the night, but had not vomited. M. Gendrin, supposing that the patient was about to become accustomed to the medicine, prescribed a drachm of the dried leaves in an eight-ounce potion. On the following day the patient had still experienced nothing but nausea: his pulse was slow. Half a drachm of the dried leaves was prescribed. The patient, as well as I recollect, says M. Joret, only drank half his potion, and saying that he was cured, refused to take the rest. Three or four days passed away, and he was well enough to walk about and play at cards with the other convalescents. At the end of this interval,

the patient, on coming out of the necessary, fell like a log upon the pavement; the nurses ran to help him up, but he was dead.

CASES II and III. M. Gendrin began by giving an infusion of four drachms of the dried leaves to each of two patients in the St. Landry ward: one was consumptive, and the other had an eccentric hypertrophy of the heart. The first vomited twelve times in the twenty-four hours; the second only seven or eight times. Nevertheless, the physician of the Hôtel Dieu, always supposing that they would become used to the medicine, prescribed an infusion of five drachms to each patient.

The consumptive patient offered to give up his ticket, preferring, as he said, to leave the hospital, rather than vomit again. The other one was more courageous, and drank the whole of the prescribed potion. Although the dose of digitalis was greater, the patient vomited much less than on the first day; the pulse, which, before the administration of the digitalis, was 120, had sunk to forty-five. The patient was exceedingly contented, and said that he felt quite comfortable. The potion was omitted, and two days had passed away, when, on seeing out his relations, who had come to visit him, he fell on the edge of the staircase, as if he had been struck with lightning, and was carried to bed dead.

Nothing was found on dissection to explain the cause of so sudden a death. The heart was hypertrophied to the highest degree, but there was neither laceration, nor any other lesion. The right ventricle contained a large clot of black blood, which filled its cavity; and similar clots were found in the large venous trunks. The vessels of the stomach were merely injected, and had not the red tint which is found in acute gastritis. There was no morbid appearance in the brain, but a slight injection of the membranes.

Patients suffering from diseased heart were at that time very numerous in M. Gendrin's wards, as he was one of the physicians of the *bureau central*, and sent himself cases of this kind; but Dr. Joret never saw the patients get used to the medicine, though he saw several recovering perfectly after doses of digitalis carried as high as two drachms.

M. Joret is of opinion that the infusion is the most active of the preparations of digitalis, that the powder may be given in daily doses of twelve or eighteen grains, beginning however with one only; that the aqueous extract may be given in higher doses than the powder, without irritating the alimentary canal; and that the alcoholic extract, the ethereal extract, and the ethereal tincture cannot be trusted to.

RUPTURE OF A VARICOSE TUMOUR IN THE VAGINA DURING LABOUR.

A woman, about thirty years old, whose previous pregnancies and labours had not been attended by anything extraordinary, observed, at the end of her third pregnancy, a soft tumour protruding from the vagina. The midwife was called in, and recommended a bleeding, which relieved the patient, but did not remove the disease.

The tumour continued to enlarge, but the woman was well in other respects, and never complained of pain. During labour, the very moment that the head entered the pelvis, the tumour broke, and discharged six or seven pounds of blood. The patient immediately fainted, her extremities became cold, and she remained devoid of consciousness. I was sent for instantly, (says Dr. Steudel, the narrator of the case,) and went to her, accompanied by an accoucheur. All our efforts to revive her were useless: the tumour was empty, and its cavity was big enough to contain one's fist. We endeavoured to apply the forceps; but, as it always slipped off, turning was practised. The child, when it came into the world, was dead, and had a spina bifida.—*Archives Générales, from the Medizinisches Correspondenz—Blatt.*

SNEEZING.

The act of sneezing is produced by irritating the sensitive extremities of the branches of the fifth pair of nerves distributed to the pituitary membrane, which, by the connexion of that nerve with the eighth pair, the great sympathetic and the phrenic nerves, calls into simultaneous action the diaphragm and the whole of the respiratory muscles so suddenly, after a full inspiration, as to expel the air from the lungs forcibly through the mouth and nostrils. It tends to clear the nostrils of concreted mucus, and so far may be productive of benefit. Thus, in a case which lately came within my knowledge, a lady was afflicted with violent headach, accompanied with that sensation which is well known by the term stuffing of the head. Many means tried for her relief proved ineffectual. A physician was called in, who prescribed snuff as a sternutatory: it produced violent sneezing, and ejected from one of the nostrils a plug of hardened mucus, nearly an inch in length; after which she felt immediate relief, and in twenty-four hours was perfectly recovered. In some cases, however, sneezing is productive of the most serious mischief: for instance, a young lady, in whom there was an affection of the ethmoid bone, was attacked with sneezing, arising from some accidental circumstance: in a few hours it proved fatal. Many instances, also, are recorded in which sneezing has produced immoderate bleedings from the nose, epileptic fits, and apoplexy; and, consequently, those errhines which were formerly regarded as sternutatories are now seldom prescribed with the view of producing that effect of errhines.*—*Dr. A. T. Thomson's Elements of Materia Medica.*

* "A singular fact connected with this subject came under my observation. A lady, liable to periodic attacks of gout, was always apprised of the approach of the paroxysm by successive fits of sneezing, which generally continued for ten or twelve hours previous to the commencement of the attack, and terminated when the pain was felt in the foot. I can account for this circumstance only by supposing, that the gouty diathesis so altered the usual state of the pituitary membrane as to render it susceptible of the impressions even of the air; and thence it is possible that, although the mucous follicles are not excited to a degree sufficient to enable them to empty their contents, yet the passage of the air, in a highly irritable state of the membrane, may be sufficient to induce the paroxysm of sneezing, previous to the attacks of gout."

CASE OF DISEASE OF THE SYMPATHETIC NERVE.

William Sharpe, eleven years of age, had a purulent discharge from the left ear, which began in the spring of 1824, kept gradually increasing, and became very offensive. Blisters were applied many times behind the ears, and tonic medicines administered without producing any good effect on the local disease, although his general health was improved by them. About the end of March, 1825, the integuments around the ear became swoln and painful, and the whole side of the face was enlarged. At this time the discharge was very copious and offensive; he had frequent pains in the head and over the left eye. On passing a probe into the meatus the bone was found to be denuded; his health had declined, and tonic medicines were of no use. In December it was observed that the left side of his face was nearly paralytic; he had violent pains in the head and face, which were much aggravated at night, and for which he took an opiate with some relief. He was frequently drowsy, and sometimes nearly comatose. In February, 1826, there was some inflammation of the conjunctiva of the left eye, which went off in a few days. On the 12th of October the left temporal bone appeared to be quite loose in the wound, and was easily extracted. About a week before this time his right eye became amaurotic, the pupil was dilated, and the lids closed. On the 14th he became insensible, but cried out when touched. On the 16th a large vesicle formed at the inferior part of the left cornea, and the greatest part of the cornea had become opaque. The right cornea was not altered. He had slight convulsions, and when the left side of his face was touched he flinched. He died in the night.

He walked about until the last few days. He had generally a good appetite. His food appeared to digest properly, and indeed all the functions of the viscera of the chest and abdomen were perfectly performed. He could talk distinctly. The left side of his face was nearly paralytic, and the left side of the nose was completely drawn to the right side. When he cried out, so as to exert the muscles of the face much, it was observed that those of the right side had very great power over those of the left; but the mouth, when shut, appeared even, and would not then have been supposed to be paralytic. From the end of last March the pain in the right side was very severe, he shrieked very much, and the opiate did not relieve him. His manner became altered, and he was unwilling to answer questions. He was generally easier in the day, and spent much of it sleeping in the sun.

Examination. This took place on the 17th of October, at eleven A.M. The dura mater was rather more vascular than is usual. The arachnoid membrane was much thickened, and especially on the right side, and there was much fluid between it and the pia mater. The pia mater was very vascular. There was much fluid in the lateral ventricles. The portion of brain which lay over the

part from which the temporal bone was separated was protruded into a hernia, and the inferior cornu of the lateral ventricle was thereby drawn out of its course; the brain at this part was softer than natural, but the rest of it was sound. The origins of the nerves were distinct.

The third branch of the fifth pair was in a state of ulceration, near its beginning from the Gasserian ganglion; the gustatory, dental, and buccal nerves were however quite attached to it, and indeed did not appear to have suffered.

The auditory and facial nerves terminated in a bulbous mass on the dura mater. The facial nerve could with difficulty be traced in the face near the edge of the jaw, on account of the inflammatory process which had been going on there. It could, however, be distinctly seen to communicate with the dental nerve, and then terminate in a confused mass, which formed the walls of the cavity containing the exfoliating bone.

The par vagum, the glosso-pharyngeal, and the accessory nerves were sound, and passed just behind the walls of the same cavity.

The internal carotid artery, from above and below, could be traced as far as the walls of the cavity, and was then lost. It was reduced to a small size, however, before it reached the walls of the cavity, and was impervious.

The superior cervical ganglion of the sympathetic nerve terminated in the walls of the cavity. The branches given off from the sixth, which usually go to the superior cervical ganglion, were very small, and terminated with the internal carotid; the superior cervical ganglion itself appeared natural.

The vidian nerve was perfect from its connexion with the sphenopalatine ganglion. The superior branch could be traced a short distance, but soon became much smaller than usual; the inferior branch could be traced a little way, it then became very small, and the branches from the sixth could be traced the same distance, and both of these terminated with the internal carotid artery, in the walls of the cavity.

The condyloid process of the lower jaw was exfoliating. The whole of the temporal bone had exfoliated, and to compensate for it, the orbital plate of the frontal bone had become unusually thick, and all the bone in the neighbourhood of the disease had a firmer texture than is observed at his age. The pericranium round the opening at which the hernia protruded, was much more vascular than in the other parts.

A considerable portion of the brain had protruded like a fungus into the cavity left by the exfoliated bone; it had been forming gradually, and was, no doubt, the cause of his death.

The quantity of fluid contained in each ventricle was the same, and therefore the blindness of the right eye did not depend on this as its cause, for vision remained in the left after the right one was blind.

In the examination, a black pin was found in the cavity, which

had contained the exfoliated bone. Pins had not been used to confine the dressings, the question therefore is, whether it had been forcibly introduced into the ear, and occasioned the disease, but this could not be ascertained.

It will be seen, from this very curious case, that the sympathetic may be partly destroyed, and the general health remain unimpaired, as we have a right to presume after a due consideration of all the circumstances which have been related. We may conclude, therefore, that although the sympathetic nerve produces a general sympathy in the body, yet that each ganglion has a somewhat local influence, inasmuch as it more particularly connects the parts giving and receiving branches from it, so as to associate them in complicated operations. Both the sphenopalatine ganglion, and the vidian nerve, were first of their usual size, then each branch of the vidian was diminished. Can it be presumed from this, that the branches of the vidian are going to, and not coming from, the sympathetic nerve?

The functions of the facial nerve must have been entirely suspended, and, from the evenness of the mouth when at rest, and from his ability to speak so well, I cannot help concluding that the branches of the fifth had very considerable power in exciting the action of the muscular structure of the lips.—*Swan on Diseases of the Nerves.*

TREATMENT OF THE VENEREAL DISEASE IN THE HOSPITAL OF THE 72^D REGIMENT, AT THE CAPE OF GOOD HOPE.

Years.	Primary Venereal Disease treated.		Total.	Secondary Symptoms after Mercurial Treatment.	Secondary Symptoms after Non-Mercurial Treatment.	Relapses after Mercurial Treatment.	Relapses after Non-Mercurial Treatment.	Total.
	With Mercury.	Without Mercury.						
1829	39	57	69	4	0	1	0	5
1830	40	64	104	4	2	2	0	8
1831	25	71	96	3	6	3	1	13
1832	12	30	42	2	10	6	2	20
Total	116	222	338	13	18	12	3	46

Mr. T. Clarke, in Med. Gazette.

DEEP-SEATED ABSCESS OF THE THIGH.

After the lecture, a patient was brought into the hospital under the following circumstances. He stated that he was a hackney car-driver, and aged about thirty-five years. Five days previously he

was seized with severe pain in the back of the thigh, and on the following day he was unable to straighten his knee. Since the commencement of the pain he has felt "a great sickness over him," and has never enjoyed a single hour's sleep. He looks exceedingly ill; his pulse is small and frequent; there is a light erysipelatous blush over the integuments at the back of the thigh; the whole limb appears to be somewhat swelled; and Mr. Crampton pointed out to the class, that it was tense and hard at its posterior part, a little above the ham.

"This, gentlemen," said Mr. Crampton, "is a most important and instructive case. It is an instance of acute deep-seated abscess of the thigh, with its constant attendant, erysipelas of the skin. I shall give you a particular lecture on this case; but at this late hour all that I can do is, to show you what is required for the safety of the patient. The matter, which has just been formed, is lying deep beneath the fascia, and even below the superficial muscles. If art were not to interpose, the suppuration would extend upwards and downwards among the muscles, producing intense pain; and if the man were (as he appears to be) of a bad constitution, the inflammation would assume the erysipelatous character, in which, you know, the adhesive process is deficient, and spread all through the limb. The cellular membrane, deprived of its vitality, would form sloughs immersed in a sanious suppuration; the skin, detached from the superficial fascia, would become pale, then purplish, and this would be the precursor of its sloughing; eschars would form on it from its partial mortification, and when these separated (if the patient survived the mischief,) it would be found that the openings led into an immense cavity filled with unhealthy pus, and traversed by muscles altogether deprived of their cellular texture, and appearing more clean than you have ever seen them on a dissecting-table. Concurrently with all this terrible local mischief, we should have suppurative adynamic fever of the worst description, profuse perspirations, diarrhoea, and not unfrequently purulent depositions in the lungs and liver. I need scarcely say that few indeed have a constitution capable of holding out under such accumulated sufferings. Accordingly, phlegmonoid erysipelas of this kind is not only one of the most painful, but one of the most fatal occurrences which we ever encounter; and here we have an illustration of the truth of the aphorism of Hippocrates respecting erysipelas: "Ex erysipelate putrido, aut suppuratione malum." You will observe, that the word "putrido" is used to express the sloughing and putrefactive process which characterizes the suppuration of erysipelas, as distinguished from that of phlegmon. Children escape oftener than adults; but I have very seldom indeed seen a man after fifty who has survived phlegmonoid erysipelas of a lower extremity, where the disease had got extensively into the intermuscular cellular membrane. The successful management of this disease I look upon to be the greatest triumph of modern surgery. You all know how much stress I have ever laid on the necessity of

early and vigorous measures in the treatment of this affection; and I trust that the present case will add one more to the many successful cases which we have had of this disease since our session has commenced. Among others, the boy in the large clinical ward, with phlegmonoid erysipelas of the knee and thigh from a wound; the man with a similar affection of the fore-arm, from a wound on the elbow; the woman with erysipelas of the fore-arm and arm, from a slight contused wound of the elbow, on whom I operated last week, and whom you saw this morning among the externes nearly well, are all cases of the successful treatment of this disease.

It affords me great satisfaction in having an opportunity of rendering that justice to Mr. Copland Hutchinson which some of his own countrymen have denied to him. To him we are exclusively indebted for this great improvement in the treatment of erysipelas. Like all great improvements, it was at first met by a denial of its utility, and then by attributing it to somebody else; but I have no hesitation in thus publicly offering my acknowledgments to him for one of the most valuable improvements which have been made in the practice of surgery within our times.

The case before us, you will observe, is not one of phlegmonoid erysipelas, properly so called: it is a case of deep-seated intermuscular phlegmon, accompanied with erysipelas of the skin and subjacent cellular tissue, in consequence of the inflamed and tense state of the fascia. But in a constitution like this man's, broken down as it is by intemperance, the true phlegmonoid erysipelas would in all probability arise, if the abscess were not opened, and the tension of the inflamed fascia relieved.

Mr. Crampton having laid the man on the table in a prone position, made an incision six inches long over the posterior aspect of the lower third of the thigh. The cellular substance, which was now exposed, was loaded with a reddish coloured serosity. Mr. C. then slit up the fascia to the same extent, and laying aside the knife, he slowly insinuated his fore-finger between the muscles, just above the popliteal space, until he reached the cavity of the abscess, and this did not occur until his finger was buried as deep as it could go.

"Now," said Mr. Crampton, "I have reached the matter;" and, on withdrawing his finger, about eight ounces of thick cream-coloured pus gushed from the wound. A thin dossil of lint was interposed between the lips of the wound, and the man was carried to bed. He was ordered some purgative pills, and an effervescing mixture made in an infusion of cinchona.

Dec. 2d. The man is free from all complaint, and the wound is healing rapidly.—*London Med. and Surg. Journal.*

ON THE DEATH OF NEW-BORN INFANTS DEPENDING ON ANORMAL STATES OF THE UMBILICAL CORD. BY DR. KOHLSCHWETTER.

The funis may cause the death of the child, 1st. by its prolapsus; 2dly, by becoming knotted; 3dly, by being twisted round the child; 4thly, by its shortness; 5thly, by the situation in which it is placed in a footling delivery. Authors do not agree in the cause of death in these cases; some attribute it to anemia, others to apoplexy, others to asphyxia, or rather the loss of the pulmonary function; and a fourth class, to the deficiency of nutritive juices which the funis can no longer transmit to the fœtus. Among these opinions we shall notice those alone which have enjoyed some degree of reputation.

1st. *Anemia*. Minelhauser advised (in 1754) that the funis should be cut and tied to prevent the child dying of anemia, in cases of prolapsus of the funis, or during a footling labour. This opinion was adopted by Stolper in 1807; and, according to this author, the tunics of the umbilical arteries are thicker and have more elasticity than the vein, and the blood circulates with more force in the former vessels. Hence the arteries will be less exposed to compression than the vein, and the blood not being returned, anemia will arise from hemorrhage. He thinks that the truth of this theory is demonstrated by the paleness of the child, and by internal signs of hemorrhage; but his opinion has not been corroborated by dissections. This theory is obviously improbable to the last degree, for it is not only opposed to the structure of the funis, which does not allow the vein to be compressed without the arteries, but moreover, in children who have sunk under pressure of the brain, there has never been a deficiency of blood, which is the only sign capable of demonstrating that hemorrhage was the cause of death.

Plethora. The authors who suppose that death takes place from this cause, by no means agree as to the kind of plethora which arises, for, according to some, it is general, and, according to others, partial. The reasons they urge in favour of their opinions are diametrically opposed to the writers before mentioned; for those with whom we have to do at present suppose that it is not the vein but the arteries that are compressed. It should not be forgotten, however, that there is no mechanical obstruction to the circulation, even if the umbilical vessels are obstructed. And, in fact, the pulsations of the heart often continue for more than ten minutes in children born in a state of asphyxia, from compression of the cord.

Medico-legal Questions. The different conditions of the funis may lay the foundation for so many difficult questions in medical jurisprudence. First of all, we must not forget to declare that respiration, while the child is in the vagina, is a possible occurrence. Artificial insufflation of the lungs may give rise to great

difficulties; for if it is true that a congestion of blood may take place in the lungs of the fœtus which has not breathed, in consequence of the suppression of the umbilical circulation, we lose the diagnostic sign by which it has been attempted to ascertain whether the respiration has been natural or artificial. This is one of the weightiest objections brought forward by Jaeger against Plouquet's test.

Knebel and Bernt have supposed that prolapsus of the funis may be known to have taken place by the contusion and ecchymosis of the parts of the cord which have been compressed; and in a case of prolapsus Michaelis observed two red and ecchymosed spots on the cord. But this sign is not always present, for the pressure on the cord is often not great enough to cause ecchymosis. The attention of the physician ought to be particularly directed to the head, where he will find the traces of a bloody tumour, even if it has already disappeared; for if the child dies during the beginning of labour, the swelling is then to be seen in the middle of the sagittal suture, whereas in new-born infants it is in the upper and posterior quarter of either parietal bone. Moreover, it must be remembered that children may be born alive, in spite of the prolapsus of the funis, but in such a state as to die after having breathed feebly.

When a knot upon the cord has been produced a long time before delivery, it leaves furrows in the spot where it has existed, as a trace of the meeting of the parts which had formed it. The very moment that the knot is untied, the cord swells a little, and shows such a tendency to remain knotted, that, if it is relaxed and pulled out, it immediately returns to its former state. But it is not so with a knot of recent formation; when once undone it leaves no trace behind.

The twisting of the cord around the neck of the child is a source of much doubt to the medical jurist; for neither experiments on the lungs, nor the ecchymosis around the neck of the child, nor the external and internal signs of asphyxia, will empower him to decide whether the death of the child has been produced by accident or design. A very remarkable case is mentioned by Jaeger. A woman was secretly delivered of a child, who came into the world in a state of half-asphyxia, the cord being twice twisted round its neck; and the mother was accused of having strangled it. There was a deeper and narrower mark around the neck of the child than the cord would have made; there was no ecchymosis, and the lungs were but little expanded by air. The cranial and thoracic cavities contained a great deal of blood. The question was ably resolved by the College of Physicians at Wurtemberg, and their decision was confirmed by the confession of the prisoner. In Servaès' case, the mother strangled the child with the funis itself. The fact narrated by Schwarz is still more replete with difficulties. In a face presentation, the child came into the world dead, and with its neck tightly squeezed between two circum-

volutions of the funis. A livid zone surrounded the neck, causing a depression sensible both to the sight and touch. The face was rather swelled, but not livid, and all the rest of the body was covered with livid spots. The coronary vessels of the heart and stomach were gorged with blood, as well as the right auricle; the left auricle was empty and flabby. The lungs seemed gorged with blood, and sank in water. The veins of the abdomen were swelled; there was no congestion in the brain. If to this we add, that the child, presenting by the face and in the most favourable position for respiration in the vagina, might have breathed, we shall have all the signs of suffocation by strangulation. It is therefore with justice that Plouquet, Knebel, Henke, and others, have considered the solution of the problem in similar cases as exceedingly difficult. According to Adolphus, Plouquet, Henke, Hinze, Platner, and Bernt, the twisted cord may leave a livid zone around the child's neck. Klein and Elsasser are of the contrary opinion, and do not allow the possibility of a zone produced by the funis during labour. Albert observed a livid mark situated in the axilla, seven lines long and two lines broad, but a portion of the funis was compressed. An important distinction, however, is to be made. If there is a band of ecchymosis around the neck, it ought not to form a perfect circle, but the two ends should cross one another. If the circle is perfect, we must suspect that the impress is due to a murderous hand, and this suspicion will be strengthened, if the lungs are found distended with air, and containing blood, together with all the other signs of life having gone on after delivery. As to supposed death from the shortness of the umbilical cord, the physician cannot give an opinion on this point, if the cord is not submitted to his examination. In the cases the most favourable for forming an opinion, his decision must still be doubtful; for all that he knows concerning the relation of the funis to the axis of the pelvis, concerning the dimensions of the fœtus, the state of the funis itself, the probable insertion of the placenta in the uterus, and all that respects delivery, will not allow him to decide if the child has died from tension of the funis during labour, or from some other cause.

Delivery by the Feet. Although delivery by the feet is frequently fatal to the child, medical jurists have taken but little pains to ascertain the effects of this kind of death. It is true that respiration in the vagina can very rarely take place in such cases, yet its possibility cannot be altogether denied. In the case reported by Pyl, all the signs of this variety of delivery may be recognised, and the question appears to have been well answered. In the case quoted by Batner, the midwife had extracted the fœtus. In the report, the compression of the cord, and the probable tension of the spinal marrow, have been passed over. When no trace of violence can be discovered, we may conclude that the death of a new-born child arises from a footling delivery, if, in addition to the signs of death caused by compression of the funis, a swelling is

observed in the genitals and scrotum of the male, or in the labia of a female. Additional information may also be acquired from the circumstances attending the delivery, and from an examination of the genital parts of the mother.—*Abridged from the Archives Générales.*

EFFICACY OF THE EXTRACT OF BELLADONNA IN STRANGULATED
HERNIA.

Dr. Fränkel, of Elberfeld, has tried the external use of the extract of belladonna with success, in cases where the taxis was ineffectual.

CASE I. A healthy countrywoman, æt. forty-two, was struck upon the right hypochondrium by the axle-tree of a cart, and thrown upon the ground. Her countenance was pale, the extremities cold, the pulse small and spasmodically contracted; and she vomited bitter matter, mixed with mucus. In the left groin there was an incarcerated hernia, produced by the accident, as the patient expressly declared that there was none before. Venesection, leeches, poultices, and aperient clysters, were employed, and a saturated solution of carbonate of potass internally administered, with the effect of relieving the pain in the right hypochondrium, but the hernia was still irreducible. Feculent vomiting and other bad symptoms came on, and Dr. Fränkel consequently proposed the operation; but as this was not consented to by the patient and her friends, he gave occasional doses of cherry-laurel water, and rubbed in belladonna ointment upon the hernial tumour.* The symptoms soon gave way, and the hernia was reduced. This case was encouraging, still it was but a single case, and it might be said that the hernia would have been reduced without the belladonna. Another opportunity for trying its efficacy soon occurred.

CASE II. A strong woman, æt. thirty-six, the mother of six children, had a femoral hernia, but did not wear a truss, as the gut came down only during her pregnancies. One night, however, when getting out of bed suddenly, the hernia became incarcerated. The operation was thought necessary, but the patient would not submit to it, and Dr. Fränkel was called in. The belladonna was again administered, and was again successful, though the incarceration was of eight days' standing.

CASE III. The patient was a female of about fifty, who had long suffered from a crural hernia of the right side. She had long been unable to wear a truss, from the induration of some inguinal glands in the vicinity of the hernia. Leeches were applied, and the ointment rubbed in; and on the fifth day the vomiting ceased, and evacuations by stool took place. The hernia was reduced;

* What the strength of the ointment was we do not know, for there is obviously a misprint in the original, which runs as follows: *welche aus einer 3 Unguentum altheae und zwei 3 extr. belladonnae bereitet war.*—*Journal für Chirurgie, &c.* Band xx. p. 561.—[*Ed. Med. Quart. Rev.*]

some of the inguinal glands suppurated, but healed under the use of bran poultices.

CASE IV. The patient was a very old, thin and feeble woman, suffering under umbilical hernia. Here too leeches, poultices, and the extr. bellad. succeeded in making the hernia reducible. Dr. Fränkel states that he has used this remedy in six cases, and always successfully, but narrates only the four of which we have given an abstract. He refers to four cases of strangulated hernia given by Fuget Duponget, in the *Revue Médicale* for November 1831, in which linen, soaked in a solution of extr. bellad. was successfully applied to the abdominal ring. Our author, however, prefers rubbing in the ointment.—*Graefe und Walther's Journal*. Band. xx. Heft. iv.

ON THE DIVISION OF THE TENDO ACHILLIS AS A MEANS
OF CURING CLUB-FOOT.

The division of tendons as a means of curing certain deformities has been rescued of late by Delpech from the oblivion into which it had fallen. He lays down the following rules for its performance: The tendon should not be exposed, nor should the section be made in a direction parallel to the wound of the skin, lest exfoliation should take place. Immediately after the division, the two portions should be placed in contact, and retained there until they are consolidated. This union is accomplished by the formation of a fibrous substance, of a soft consistence; and it is during this state that gradual extension must be made, until the deficiency of the length of the muscular fibre is repaired, and afterwards continued till the intermediate substance has become perfectly solid.

The method adopted by M. Delpech did not, however, fulfil all his indications; for, in the case of a boy whose tendo Achillis he divided, the operation was followed by sloughing and tedious suppuration. The boy being laid upon his stomach, the operator plunged a bistoury under the tendon, dividing the skin for about an inch on each side of it; he then withdrew the instrument, and reintroducing a convex-bladed knife with the cutting edge towards the tendon, divided it from within outwards. Here, though the skin over the tendon was not injured, the tendon exfoliated, the parts suppurated, and the cicatrix afterwards impeded the motion of the foot.

Dr. Stromeyer has modified this operation of Delpech in a very ingenious manner. The following are some of his successful cases.

CASE I. George Ehlers, aged nineteen years, came under the doctor's care in October, 1830, with an affection of his left foot, which had existed since his fourth year, and resisted every local and constitutional treatment. The toes were bent inwards and downwards, and the foot itself was so turned that its external margin was brought into a line with the axis of the leg, and so extended by the contraction of the gastrocnemii muscles, that both its edges were in a straight line with the anterior surface of the leg.

Above the outer margin of the foot were two callosities, arising from the pressure of the patient's walking on that part at the onset of his disease. The joint was nearly immoveable, and the leg much wasted. There was some curvature of the knee, from the use of a wooden leg, to which he had had recourse for five years. The operation was performed on the 28th of February, 1831. The patient being seated on a table before the operator, an assistant held the knee firmly, while another endeavoured to flex the foot, so that the tendo Achillis was rendered very prominent. A pointed convex bistoury was inserted underneath the tendon, about two inches from its attachment, dividing it as it passed along. Care was taken to make no external wound on the opposite side, and to confine the other to the size of the blade of the bistoury. Very little blood was lost. The tendon retracted but slightly, scarcely three quarters of an inch, when the foot was flexed, and during its extension the parts readily came into contact. The wound was covered with plaster; a long compress was placed on each side of the tendon, with a figure of 8 bandage, which answered the two purposes of pressing on the part and keeping up extension of the foot.

On the third day the wound was healed; the tendons were slightly swollen, but as yet there was no union between the two portions, a fact manifested by the motion of the foot not being communicated to the upper portion.

On the sixth day the swelling had subsided, and there was a slight degree of union. On the tenth all tenderness had ceased, and the patient could readily move his foot.

At this period Dr. Stromeyer commenced his extension, by means of an apparatus hereafter to be described. The utmost caution was employed during its application, lest the recent adhesions between the surfaces of the tendon should be ruptured. At the end of a week, however, more force could be used without occasioning any severe pain, and in the course of eight weeks the foot was brought to a right angle with the leg. An iron boot was then applied, which could be made to act, with the power of a screw, in diminishing this angle, without destroying the mobility of the joint. With this boot the patient could walk across the room; but, of course, suffered at first from weakness and œdema of the limb, occasioned by its long inaction. This swelling subsided at the end of two months, but it was even then impossible to form any very accurate opinion as to the size of the tendon, or the length of its connecting substance. It might, however, be observed that the gastrocnemii muscles on that side were much higher than on the opposite leg; proving that this power of flexion of the ankle-joint did not depend upon any elongation of the muscular fibre, but of the tendon only.

The patient laid aside his boot at the end of six months, and at the period of the publication of his case (eighteen months after the

operation,) he had a perfect use of the joint, the newly formed substance having shown no disposition to contract.

CASE II. M. B. Blumenthal, æt. thirty-two years, consulted Dr. Stromeyer, in May, 1832, for a similar affection of his left ankle. Its origin was attributed to certain convulsions, from which the patient suffered during infancy, but it had gradually augmented until it had confined him to his bed. The state of the foot was very similar to the former case: the heel never touched the ground, but the muscles were only slightly wasted, and the joint remained perfectly moveable. The operation was performed on the 12th of June, 1832, and the only difference in the mode of its accomplishment was, that the bistoury was inserted at a distance of three inches from the tendon, in order to remove the wounds from the pressure of the bandages. During the flexion of the foot the portions of the tendon were separated, but, on its extension, they were readily brought into contact. The parts were subsequently kept in a state of perfect rest by means of a splint applied to the anterior surface of the leg and foot.

During the night the patient experienced slight cramp in the leg, and on the second day the ends of the tendon were discovered not to be in contact. A bandage was applied round the whole limb, in order to prevent their muscular contractions, but was ineffectual. It was therefore removed, and they did not return under the use of the splint only.

By the fifth day union had commenced, and on the tenth extension was resorted to, and continued during five weeks. The boot was then applied as in the former case, and in ten weeks the foot was brought to a right angle with the leg, and the sole of the foot was planted horizontally on the ground in walking.

The apparatus employed for the extension by Dr. Stromeyer consists of a splint longer than the leg, and terminated inferiorly by a rounded notch for the external part of the leg and the prominence of the malleolus. A moveable wooden sole was situated between projections bordering this notch, which could form various angles with the perpendicular portion of the splint. To this sole a small windlass is attached, the cords of which pass over pulleys fixed to the upper and anterior portion of the splint, so that, by turning the handle of the former, the sole may be brought to a right angle with the other part of the apparatus. An iron catch falls into the teeth of the wheel attached to the windlass, so as to prevent its returning on itself. By means of this (care being previously taken to pad and bandage the limb,) powerful extension may be employed upon the tendon, and graduated at pleasure.—*Abridged from the Archives Générales.*

CONVERSION OF THE RIGHT LUNG INTO AN ENCEPHALOID STRUCTURE.

John Keating, aged thirty-six, of a muscular form, a printer, admitted on the 1st of May, 1833, into the Meath Hospital, which

he had left in the beginning of April, having then been in it nearly two months. He dates his illness from the summer of 1832, at which time he became subject to occasional pains in the right side of his chest, increased by deep inspiration. Last November he was attacked with cough, dyspnœa, hoarseness, slight expectoration, at first mucous, afterwards a little tinged with blood, and constipation of bowels. In a short time he observed also some œdema of the face and neck, rather greater on the right side, and on rising in the morning. This illness he attributed to over-exertion, want of rest, and cold caught by handling damp paper. The symptoms were a little relieved by venesection and a cough mixture. The attack however recurring, he came into the Meath Hospital in the month of February last, labouring under symptoms less urgent, but of the same character with those detailed below, on his second admission. He was treated by Dr. Stokes with venesection, moderate mercurialization, repeated blisters, &c., and went out slightly improved about the beginning of April. Being still however unable to work, and finding his symptoms returning with increased violence, he again came to hospital, and was placed under my care, the 1st May. His chief distress arose from excessive dyspnœa, almost amounting to orthopnœa; when he lay down the only position in which he could breathe tolerably was on the right side. After a few weeks he found it impossible even to do this; and for eighteen or twenty days before his death he sat in his bed night and day, leaning forward as far as possible, and supporting his head by means of a pillow placed on his knees. A state more piteous could scarcely be imagined. When admitted his dyspnœa was increased by the least exertion, which brought on palpitations of the heart. He had a dry cough, with occasional scanty expectoration slightly tinged with blood; no pain in chest, with the exception of slight stitches on making a full inspiration. He experienced some difficulty of swallowing, and referred the cause of obstruction to the lower part of the throat. There is no soreness in any part of the chest, but he complains of some pain about the right shoulder. His face is bloated, pale, and looks as if it were slightly œdematous; this, together with a certain appearance of the eyes, as if the balls were somewhat protruded from the sockets, and a marked dilatation of the nostrils during breathing, gives his countenance an expression of distress and suffering. The right jugular vein was much distended, as were the veins in the right axilla, but this symptom was chiefly remarkable on the surface of the belly, where two veins corresponding to the situation of the superior epigastric artery pursued a remarkably tortuous course along each side of the *linea alba*, being turgid, and dilated to the size of swans' quills.*

His bowels were constipated, and subject to griping pains.

* " This circumstance indicating some obstruction at the right side of the heart, I then considered as affording indubitable evidence of the disease of the heart itself. The dissection proved that the cause lay not in the heart, but in the impervious state of the right lung, in consequence of which, the black blood had its

Urine scanty and high coloured; loss of appetite; night sweats; slight thirst, tongue clean, pulse one hundred, regular, and compressible.

Examination of Chest. The intercostal spaces on the left side are more distinct, deeper, and more dilated in respiration, than those on the right; the latter, however, although not so well marked, are by no means obliterated, or distended by pressure from within. The right side of the chest measured about half an inch less than the left.

Percussion. Left side anteriorly, a clear sound everywhere, until we came within an inch of the sternal median line, where it became dull. Posteriorly, everywhere a clear sound. Right side, universally over every part, as dull as possible.

Respiration. Puerile over the whole of left side, except on approaching the sternal median line, where it assumes a tracheal character. This tracheal respiration is observed over a great part of the anterior part of the right side, where it is very loud and distinct above the mamma, feebler immediately below it, and is almost entirely lost still lower. On the posterior part of the right side, the loudness and tone of the respiration are not by any means so decidedly tracheal as anteriorly; to some, the sound heard appears to be more allied to bronchial respiration, and it is certainly bronchial in one part, near the spine. No rales are audible in any part of the chest.

Voice. At the upper and anterior part of the right side, the voice is resonant, approaching to, if not identical with bronchophony; elsewhere, nothing remarkable was observed with respect to the voice.

Heart. Pulsates in its natural situation, but its sounds are heard over a great extent, being audible under both clavicles, and over the whole of the right side. Right side of chest, during respiration, obviously moves much less than the left, and when he speaks, the hand placed on it feels the vibrations caused by the voice to be feebler on the right side than on the left.

The physical phenomena here detailed remained unvaried until his death, except that all traces of bronchial respiration soon disappeared from the right side of his chest, except at one spot near the spine, and where any thing was heard in other parts it was now evidently a tracheal wheezing which marked all other sounds.—*Dr. Graves, in Dublin Journal, No. 12.*

exit from the right side impeded; none, or nearly none, passing through the pulmonary artery to the right lung. In truth, engorgement of the venous system, although it may indicate an obstruction somewhere in the central portion of the system of black blood, yet it by no means points out the exact seat of that obstruction: the obstruction may occasionally be even on the left side of the heart. With regard to the serpentine course of the abdominal veins above described, I find several such cases recorded, particularly one by Dr. Wright, of Baltimore, in his contributions to cardiac pathology, and one of a very remarkable nature by M. Renaud, in which the superficial veins of the abdominal parietes carried on a collateral circulation where the vena cava was obliterated.”

[The remainder of the case may be told in a few words. The patient died on the 15th of July, and on dissection the right lung was found to be converted into an encephaloid mass weighing more than six pounds. "The heart was pale, and rather atrophied." Besides the other symptoms commonly supposed to denote disease of the heart, a *bruit de soufflet* had been observed, chiefly at the right side of the heart. The diagnosis which had been formed were "aneurism, circumscribed pleuritic affection, and enlargement of the heart; pleuropneumonia, pleurisy, and hepatization, in consequence of previous pneumonia, solidification from tubercles, &c." It must be confessed, that if stethoscopy in general be in its infancy, the cardiac division of the science is in an embryo state; and the lovers of truth must at present propound their diagnosis founded on rasping, cooing, or bellows' sounds, with doubt and modesty.—*Ed. Med. Quart. Rev.*]

CHRONIC DISORDERS OF THE HEART.

Chronic disorder of the heart, whether its action is increased, diminished, or oppressed, is produced by disorder of the stomach, of the liver, or of the bowels.

1. The stomach, being disordered in some individuals, the heart's action is suddenly oppressed or suspended.

I have known it instantly suspended by pork, by tongue, by rich pastry, by heavy dumpling, or any indigestible substance of that kind. In some of these cases the person dies as suddenly as if he were shot through the brain, or through the heart itself. One of the first cases of typhus fever I attended was in a schoolfellow and friend of mine. He was convalescent, and as I was ignorant of this connexion between disorder of the stomach and disorder of the heart, I neglected to give any particular directions as to the quality and quantity of his diet during the state of convalescence. I was sent for one day, and upon arrival I found that he was dead: he expired instantly after having eaten a large and indigestible meal. I have seen other cases of this kind. The only way to save the patient, if you chance to be present, is by diffusible stimulants, as a glass of brandy, the patient being placed in a recumbent posture.

In other cases great oppression of the heart only occurs. The patient is pale over the whole surface of the body; sometimes he falls down suddenly and faints, with a dilated pupil, a blanched conjunctiva, a weak respiration, and a small, struggling, irregular pulse. I saw a gentleman who had been travelling a long way, and at the end of his journey ate some veal pie with a heavy crust. He dropped down insensible, his breathing was feeble, his pulse struggling, his eye blanched, his pupil dilated, and he was in a slight degree convulsed. If you can act on the stomach by an emetic, it is the best plan; but if the stomach be not obedient to an emetic, the patient has the best chance from diffusible stimulants. When persons die in this state you generally find the

brain more or less gorged with blood, or an effusion of thin serum into the ventricles or between the membranes of the brain.

2. More commonly than this, there is an intermittent or an inordinate pulse from disorder of the stomach. A person has a torpid liver, uneasiness about the stomach, and a torpid colon: he is subject to very great irregularity of the heart's action, to flushes of heat in the face, to coldness of the feet, and his pulse is frightfully intermittent after a meal. It beats once, twice, thrice; then there is a sudden stop, and then it goes on again. It is to be remedied by acting gently on the liver and bowels, and regulating the diet.

3. Sometimes the heart's action is what is called inordinate. One pulsation is strong, the next weak; then three or four pulsations are rapidly performed, and are succeeded by three or four slow pulsations. This is exceedingly common, from disorder of the stomach. So long ago as the year 1811, I saw a lady who for a long time had been subject to violent palpitations of the heart, and extreme irregularity of its action, so that at length she was unable to walk across the room without assistance. Every now and then she was suddenly seized with great difficulty of breathing, and coldness of the hands and feet, her face was flushed, she was perfectly powerless, and sunk from off her chair upon the ground. She went on in this way for twelve months; she had consulted several physicians, who agreed that she had organic disease of the heart. When I saw her, I thought it might possibly depend upon the stomach; and upon enquiring into her diet, I found it all originated from a small quantity of pastry which she always took once in twenty-four hours, or oftener. By withdrawing this, and giving her a small quantity of animal food, she recovered very rapidly indeed. I saw a lady in London with the same symptoms, with a torpid colon, and a foul tongue. She was supposed to labour under organic disease of the heart by the physicians whom she had consulted. I regulated the diet carefully; I acted gently on the liver, and moderately on the bowels; and all her symptoms disappeared with great rapidity.

If, then, you see a case in which there is irregularity of the heart's action, with a foul tongue, with irregularity of the liver, the stools showing either a deficiency or a depravity of bile; when, indeed, there are any indications of disorder of the stomach, liver, and bowels, be careful of giving an opinion as to the existence of organic disease of the heart. In all these cases, try first to remove the disorder of the stomach, liver, and bowels.

4. The heart's action is preternaturally increased from disorder of the stomach, liver, and bowels. Chronic inflammation, seated in different parts, is chiefly maintained by excitement of the mucous membrane of the stomach operating on the heart's action; and this excitement of the stomach is produced and maintained by daily errors of diet and drinks. A great many chronic inflammations arise, or, if not, are maintained thus; therefore, in all chronic in-

flammations, support the strength, without exciting the heart's action, by carefully regulating the diet. In all chronic diseases, that diet is prejudicial which increases the heart's action and the animal heat simultaneously.—*Armstrong's Lectures.*

PATHOLOGY OF THE FÆTUS.

Dr. Ollivier, of Angers, has some observations on this subject in the *Archives Générales* for May, and narrates three cases of disease in the fœtus not derived from the mother.

CASE I. *Ulceration of the Skin.* On the 24th of April, 1828, a child was brought to Dr. Ollivier, labouring under a rare variety of club-foot, the back of each foot being directly applied to the anterior part of the leg. Above the left malleolus externus, and in the fold formed by the forced flexion of the foot upon the leg, there were two ulcerations of the skin, with a grey centre, and very red, bloody edges, looking like a fresh burn of the second degree. The right foot internally, and over the whole extent of its dorsal surface, presented a large scar of a yellowish grey, surrounded by a very red and bleeding inflammatory edge. This disease of the skin, like the one in the other leg, had the greatest resemblance to a recent burn.

Dr. Ollivier treated the case successfully by ordering the feet to be extended by a bandage, and the ulcerated surfaces to be covered with Goulard's cerate.

The author observes that this case shows one of the uses of the liquor amnii. Under some circumstances, the absence of the contact of atmospheric air makes the skin assume the characters of a mucous membrane. The skin becomes red, inflames, and softens; the epidermis is no longer visible, and its surface becomes covered with a copious exudation, quite similar to the mucus which lubricates mucous membranes. This may be seen in the deep folds caused by the flexion of the limbs in very fat infants; and the same phenomenon is caused by muscular contractions of long standing: in fact, wherever the skin, by being in contact with itself, is withdrawn from the direct action of the air. The curious case just related shows that a faulty position of the limbs of the fœtus produces a similar effect, by withdrawing the skin from the influence of the fluid which moistens it, and performs the office of the atmosphere during the intra-uterine existence of the fœtus. This is, no doubt, the origin of those preternatural adhesions which accompany some monstrosities.

CASE II. *Warty Excrescences over a great part of the Body.* On the 12th of last April Dr. Ollivier was desired, by *M. le Procureur du Roi*, to open the body of a fœtus found in the Seine the day before, in order to ascertain the cause of its death. It seemed to have arrived at its full time, and to have been in the water about three weeks.

On the whole front of the chest, and on the abdomen, especially its upper part, there were an infinite number of warts of a greyish

white, several of which were as large as a lentil. They all had pedicles, and the largest were fissured through the greater part of their substance. On detaching the epidermis, which putrefaction had separated, from the skin, it was seen that all these excrescences penetrated it, without being covered by it; and dissection showed that they were rooted in the skin itself, and even in the subcutaneous cellular tissue. But this warty vegetation was not found only on the anterior part of the chest and abdomen; it likewise existed on both shoulders, and both arms, as far as the elbow, particularly outwards and rather backwards; and on the thighs and nates, also outwards and backwards only. These regions were covered on the right and left for the same extent with a considerable number of small warts, which gave the skin a grained appearance; several of them had the yellowish colour of ephelides, so that at a distance it might have been thought that the skin was suffering merely from this discoloration. All the viscera of this fœtus were healthy.

If the affection of the skin just described resembles, in its anatomical characters, the disease which occurs at other periods of life, it is remarkably different in its development; for warts, which are so often found on the surface of the skin, ordinarily occur only on some isolated points, and do not cover, as they did in this case, a great portion of the body, occupying in a symmetrical manner the same region on the four limbs. The only case in an adult having some resemblance to this one is mentioned by Pechlin, (*Obs. Phys. Med.* Hamburg, 1641, 4to. Lib. 2. Obs. 44.) who saw a surgeon, the whole surface of whose body was covered with a great number of warty excrescences.

The case narrated above shows, in contradiction to the opinion of Corry, that warts may be congenital: *Nunquam connata sunt verrucæ*, he says, (*Tract. de Morb. Cut.* Paris, 1777, 4to. p. 542.) It is possible that cases of this kind may have been taken for instances of congenital venereal disease; but here no mistake could be made, for there was no resemblance between these and syphilitic warts.

CASE III. *Subcutaneous Abscess in a Fœtus about Three and a half Months Old.* The author, in making a medico-legal examination of this fœtus, found on the right and anterior half of the neck a tumour as big as a hazel-nut, its yellowish white colour forming a strong contrast with the reddish tint of the rest of the body. The tumour was soft, with fluctuation, and extended from the base of the lower jaw to the right sterno-clavicular articulation. An incision was made, and gave exit to a white, creamy, inodorous pus, situated under the skin, which it separated from the subjacent muscles. The integuments around this collection of pus were in their natural state.

It may be suspected, indeed, that this abscess was caused by attempts to procure abortion; but it is just as probable that it may have been the consequence of a spontaneous phlegmon.

PHLEGMASIA DOLENS IN MEN.

The Phlegmasia Dolens, that white elastic swelling, generally of one, very rarely of both the lower limbs, attended with great pain and soreness, is supposed to be peculiar to female nature, indeed to women after lying-in, and was formerly considered and miscalled a "Depôt du lait."

But a more accurate pathology has exploded the notion of its being a deposit of milk, and has assigned causes for the disease, which do not preclude the other sex from a liability to it. Indeed, a most respectable general practitioner has expressed such a belief, and I am much mistaken if I have not seen it in three instances, within the last few years, in men; and if the suggestions of some intelligent practical writers, who have attributed the disease to an inflammation of the veins of the pelvis be correct, there is no reason why men should not occasionally contract the malady, though it will be easily admitted that the long-continued pressure of the pregnant uterus on the iliac veins, and the violent change which that part of the female system undergoes by parturition, must render women more frequently the subjects of this complaint.

Perhaps you will allow me to give two of these cases in some detail; and I beg you to bear in mind the notion of an inflammation of the veins of the pelvis as the origin of the painful affection; because I think their history serves much to confirm the correctness and truth of this notion.

The late Earl of L. suffered with this disease many years before his death, and bore marks of it to the last, in a swelling of the left leg and thigh, and in the varicose state of the veins from the ankle to the groin. He was attended by the late Dr. Pemberton in the first instance, and the symptoms were palliated from time to time; but he remained subject to repeated attacks of the same painful malady; and I am persuaded that the obstruction to the circulation of the blood, occasioned by the original inflammation, gave rise at length to that disease of the brain which incapacitated him for the business of his great office, and ultimately deprived him of life.

When I first attended him, some three years before his death, I found him subject to temporary congestions in the liver, which were relieved by small repeated doses of calomel, followed by purgative draughts containing neutral salts. But there was something extraordinary in his pulse which attracted my particular attention. It was most unusually slow, beating only forty-four pulsations in a minute, whereas I learnt that the original habit of it was to give seventy-four strokes in that space of time. This was ingeniously conjectured by Sir Astley Cooper, who had attended him with Dr. Pemberton, and had witnessed repeated attacks of the inflammation of the veins, to be attributable to an obliteration of the external iliac vein of the side affected, by which the blood was returned to the heart more slowly, and the vital organ was not stimulated thereby to contract itself till after longer intervals than had been

its custom. The good reason and propriety of this conjecture was abundantly confirmed by examination of Lord L.'s body after death, when the left external iliac vein was found to be impervious for several inches, and, what is remarkable, the corresponding vein on the right side was ossified.

It is not improbable that the stroke of apoplexy which brought his life into imminent hazard when it occurred, and which destroyed his mental powers for the whole year during which he survived it, was referable to the same obstruction to the return of the blood towards the heart from the lower extremities; nor was it unlikely that a large accumulation of blood in the sinuses of the brain (in consequence of an impediment to its free ingress from the vena cava descendens, into the right auricle, caused by the heart's preternatural delay in contracting,) should occasion an effusion of serum into the brain. This was the case in fact; and at least four ounces of lymph were deposited in its substance, in an unnatural cavity extending from the roof of the ventricle to the pia maternal covering of it. Lord L., sometime previously to the apoplectic seizure, had complained of an imperfection in his vision, and used to remark that he missed a word or two in every line; but, after the blow was struck, he lost the power of speech almost altogether. Epileptic fits followed, at uncertain intervals, and in one of these he expired. Alas! how fearfully and how wonderfully are we made! and on what a thread does this proud distinction of man, his reason, and his life, depend! What momentous consequences do sometimes follow the slightest derangement of the economy of our curious fabric! This inflammation of the vein, from whatever cause it arose, (the most probable one was, exposure to a cold March wind in a rather thinner dress than usual,) appeared to give way to appropriate remedies, and was not thought of any importance beyond the pain and inconvenience which it occasioned at the moment; but it was destined to produce a tragedy, sometime after, of unusual interest and distress. Lord L. married subsequently to the first attack of the disease, and was directing the affairs of this great nation at the height of its glory, when the matured consequences of this disturbance of the circulation, by a common cold, deprived him of his intellect and of his life.

Another case of this disease presented itself to me, in the person of an officer of high military reputation, who fell ill under symptoms of an inflammation of his chest. He had already been bled, and had taken physic, when I saw him, and was complaining of acute pain in the region of the liver. This was met by a further loss of blood by cupping the right side; soon after which a deep-seated pain attacked him in the left groin; here sixteen leeches were applied, and the part was fomented. On the following day, the thigh and leg were considerably swollen; some knots could be felt in the course of the veins, and the lymphatics of the surface manifested themselves in red streaks. Here again the inflammation and soreness were treated by more leeches, and cold lotions; and a ne-

cessity for their repetition occurred three several times more on account of the pain, once again above the knee, twice in the leg.

At length the fire was extinguished, but the limb has continued swoln, though to a less degree, ever since. However, some baths on the Continent, and a bandage, have reduced the inconvenience so much, that it interferes now but little with the comforts of life. But my patient returned to town, this last autumn, under considerable anxiety and alarm, on account of a notable intermission which had been discovered in his pulse; the importance or no importance of which some time will be necessary to ascertain; but this symptom will induce me to look with suspicion upon, and to watch with jealous care, any affection of the head, should it arise.

As to inflammation of the veins, generally, it is not my purpose to discuss this question on the present occasion, nor to enter into consideration of the various opinions which pathologists have entertained of the nature of the symptoms which arise in that state. We all know that injuries done to veins by accidents are apt to produce a disease which proceeds most rapidly to the destruction of life, and that this is much less frequently the case where the inflammation has arisen spontaneously. Probably the admission of air into their cavities, as would often be the result of an injury, may make the difference. No; my object, in this short paper, has been merely to assist in doing away the opinion that phlegmasia dolens is peculiar to women; and to confirm, as far as these two cases may be thought to confirm it, the later and better philosophy of the disorder.

I would add, that I think it worth your future attentive consideration, and inquiry, whether the irregular intermittent pulse, so frequently observed in the decline of life, may not be traceable to some past unheeded inflammation in an important vein, and to a consequent impermeability or obliteration of its channel.—*Sir H. Hallford's Essays and Orations.*

HYPERTROPHY OF THE MAMMÆ.

A case of this nature came under my observation in May last. The subject of the affection was a girl nineteen years old, a respectable farmer's daughter; she was of good constitution, rather robust make, and sanguine temperament. From the account given by the surgeon in attendance, it appeared that she had never menstruated, but had occasionally suffered from pains in the head, back, and abdomen, which, so far as he was enabled to judge during a period of three or four months, seemed to coincide with those which usually forerun and accompany the eruption of the menses, observing likewise a similar periodicity in their recurrence. The treatment he had adopted had been limited to emmenagogue pills of aloes, myrrh, and calomel, with saline aperients, and the occasional application of leeches behind the ears. The enlargement of the breasts had been first noticed when she was seventeen years of age, their development having commenced at

fifteen. The girl described her feelings in the breasts up to about her eighteenth year as rather pleasant, experiencing hot, tingling sensations in them. After this time she felt nothing to attract her attention to them, unless the occasional feeling of a dull, heavy pain in the breasts, which was generally the worst at those times when she was afflicted with the headaches and pains in the back. When I visited her she was in perfect health; but her appearance was rendered remarkable by the extraordinary size of the mammæ, which she represented as exceedingly burthensome when deprived of the support afforded by her stays. On measuring the glands while she lay in bed, the circumference of the right breast was found to be upwards of twenty-three inches, and that of the left about twenty-three inches; while retained on the chest by the hand, their height amounted to seven and a half inches.

Conceiving that this was a case of postponed menstruation, in which the nutritive vessels of the mammæ had become vicarious of the excretory function of the uterus, and that their inordinate activity had now become the cause of the suspension of the catamenia, we determined on employing such remedies as might, by exciting the absorbents of the mammæ, counteract the undue textural deposition, at the same time that they would, by expediting the absorption of medicines given for the purpose of eliciting the uterine flux, the more speedily induce their operation. On the 18th May she was ordered to take ten grains of the ergot of rye twice, with one of the following pills thrice a day: *R. Pilulæ Hydrargyri gr. xxiv., Iodini gr. xii. Morphiæ Muriatis, gr. j. Confect. Aromaticæ Æss. Ft. Massa in Pilulas xii. dividenda.*

With these medicines she persevered until the 25th, when, having an attack of the symptoms of which she used to complain, I was requested to see her again, and then ordered her to be bled to twelve ounces, and to be placed in the hip-bath, which produced very considerable relief, but no appearance of vaginal discharge. On the 28th, the pills were suspended, as her mouth had become affected by the mercury. She still continued the ergot until I saw her on the 3d June. At this time, more than a fortnight from the commencement of her treatment, there was no advancement made towards the removal of the cause of the affection; the breasts themselves seemed in no way altered; but, as she was still under the influence of mercurial fever, it was thought advisable to discontinue all medicinal treatment.

About the 16th of June she was directed to recommence the ergot of rye, taking ten grains thrice, instead of as previously, twice a day. With this she continued for a week, when, on experiencing a return of her periodical ailments, there was observed a slight appearance of sanguineous discharge from the vagina, which continued for four or five hours. She was now recommended to give up her medicines for a time, but to resume them every month for a few days before the succeeding menstrual evacuation was to be expected. With this advice she proceeded for two months, at each

period having an imperfect vaginal discharge. On the third month she again began to take iodine, ten drops of the tincture three times a-day, in a wineglassful of water, and the ergot of rye as usual. Her menses appeared at the due time, and more abundant in quantity. From this time the ergot of rye was entirely discontinued. With the tincture of iodine she persevered for upwards of a month, when it was thought necessary, in consequence of some uneasiness of the throat and fauces, to suspend it. On examining the breasts, in September, they were found to have lost about one-sixth of their volume. As she appeared now to be doing well, and the natural operations of the organs to be established, she was advised to trust to her own physical energies for the completion of what seemed the commencement of a removal of her affection.

When I saw this female, in the latter end of November, she was in perfect health, her catamenia had continued to appear regularly, and her breasts had suffered a very surprising diminution; so much indeed, that she was not only relieved from the inconvenience of which she originally complained, but their volume was scarcely greater than the usual size.—*Monthly Archives.*

TRIPLE QUOTIDIAN AGUE.

Charles Comins, æt. twenty-nine, an Irish labourer, applied to Dr. Duncan, on the 4th of March. He stated, that each day he had three distinct attacks of rigors, followed by heat and sweating; viz. at six A.M., eleven A.M., and six P.M. In July last he had worked at the harvest in the Black Fen; the first attack of ague took place three weeks ago; he had used no remedies.

He was ordered to take immediately a scruple of the Pulvis Purgans of the Dispensary Pharmacopœia (containing about sixteen grains of Jalap and four of Calomel,) and four grains of the Sulph. of Quinine every four hours.

On the 5th, he had only one attack of rigors, but on each of the three following days he had two attacks. At the end of a week the ague had entirely left him, but he continued the quinine, in diminished doses, for ten days longer. On the 5th of April the ague returned, but under the form of a double Quotidian only. It readily yielded to the quinine, given as before, after a brisk cathartic.—*The Liverpool Med. Journal, June.*

MISCELLANEOUS.

KING JAMES'S COUNTERBLASTE TO TOBACCO.

In the reign of James the First the habit of smoking was so universal in England, that a large proportion of his Majesty's liege subjects had become little better than walking volcanos; whereupon that learned and facetious monarch, distressed at the prevalence of so outlandish a custom, was at the trouble of writing a "Counterblaste to Tobacco," in which he exposes the turpitude, as well as the insalubrity of this horrible practice. He shews the baseness of

its origin in the use made of it by the Indians for the cure of a certain disreputable malady, "whereunto these barbarous people are (as all men know) very much subject, what through the uncleanly and adust constitution of their bodies, and what through the intemperate heat of their climate; so that as from them was first brought into Christendome that most detestable disease, so from them likewise was brought this use of tobacco, as a striking and unsavourie antidote for so corrupted and execrable a maladie; the stinking suffumigation whereof they yet use against that disease, making so one canker or venim eate out another."

"Now to the corrupted baseness of the first use of this tobacco doeth very well agree the foolish and groundlesse first entry thereof into this kingdome. It is not so long since the first entry of this abuse amongst us here, as this present age cannot yet very well remember both the first author and the forme of the first introduction of it amongst us. It was neither brought in by king, great conqueror, nor learned doctour of physicke. With the report of a great discovery for a conqueste, some two or three savage men were brought in, together with this savage custom. But the pitie is, the poore wild barbarous men died, but that vile barbarous custom is yet alive, yea in fresh vigor."

His majesty introduces some original physiological and pathological views. The operation of the noxious weed as a sialogogue is thus illustrated, in opposition to those who maintain that it acts beneficially by purging the head and stomach of rheums and distillations: "The fallacie of this argument may easily appeare by my late preceding description of the meteors; for, even as the smoakie vapours sucked up by the sunne, and stayed in the lowest and cold region of the aire, are there contracted into clouds, and turned into raine and such other watery meteors, so this stinking smoake, being sucked up by the nose, and imprisoned in the cold and moyst brains, is, by their cold and wet facultie, turned and cast forth againe in watery distillations, and so are you made free and purged of nothing but that wherewith you willfully burdened yourselves."

The post-mortem appearances in inveterate cases of fuliginous disease are duly recorded.

"Surely smoke becomes a kitchen farre better than a dining chamber, and yet it makes a kitchen also oftentimes in the inward parts of men, soyling and infecting them with an unctuous and oily kind of soote, as hath been found in some great tobacco-takers that after their death were opened." A state obviously irremediable, unless Archeus, in the multiplicity of his functions, should assume that of a chimney-sweep.

The blast of the royal horn winds up in the following energetic expostulation:

"Have you not reason then to be ashamed, and to forbear this filthie noveltie, so basely grounded, so foolishly received, and so grossly mistaken in the right use thereof? In your abuse thereof

sinning against God, harming yourselves both in persons and goods, and raking also thereby the markes and notes of vanitie upon you ; by the custom thereof making yourselves to be wondered at by all forreine civill nations, and by all strangers that come among you to be scorned and contemned ; a custome loathsome to the eye, hateful to the nose, harmefull to the braine, dangerous to the lungs, and, in the blacke stinking fume thereof, nearest resembling the horrible Stigian smoake of the pit that is bottomless."

Notwithstanding all this, we strongly suspect that if the worthy monarch could once have been brought fairly under the influence of a good cigar, he would have found it so congenial to his lazy and contemplative disposition, that he would have revoked the Counterblaste and written a *Currus Triumphalis à Tabacco*.

STATE OF DRUGS IN LONDON.

In our administration of medicine, we expect and assume an identity of operation, from things widely different in their elementary nature and composition. There is, I was assured only the other day, by a very intelligent chemist and druggist, a difference of 300 per cent. in the quality of certain articles of the *Pharmacopœia*, on sale in different shops. This was his own unreserved expression; and the statement may be verified by any one who will take the trouble to examine samples from various retail stores in the city of London. Indeed, this difference in the quality of certain drugs may be at once assumed, from the difference of prices in the bills of parcels from various wholesale houses. I have known this difference range from 12s. to 20s., from 1s. 8d. to 6s.; and this in medicines declared to be of the best quality, and furnished to a great public institution, where it was known that they would be submitted to a fair competition, and would be carefully examined by a competent professional committee. It is not likely that better drugs than the worst of these should be furnished to the solitary practitioner of the retired hamlet. Now, even admitting a range in what may be termed the fancy price of drugs, as measured by an imaginary excellence of colour and other properties of appearance, there still would be an alarming difference in their money value, only to be accounted for by a difference in their useful medicinal properties. By all great dealers this variety is admitted; and yet, be it remembered, every variety finds a purchaser. A great deal of this pernicious trash is disposed of to the London market; but the greater part of it, I am told, "goes into the country." The respectability of the drug trade has been greatly lowered by the demand of the retail dealers for these low-priced inferior samples. I have heard this stated by respectable druggists, who have lamented that it should be so. Those who conduct the trade with a sufficient capital, a capital enabling them to make a selection in the market, and who are impressed with the responsibility of their business, would, I am sure, be very glad to assist in placing it on a footing, which, by affording more security to the public, would imply its

greater respectability. There are some houses where wonderful pains are taken to insure excellence in the medicines furnished, and accuracy in the preparation of them. Like every thing in London that is fairly taken up, the business in these houses is done to perfection. Of all the numerous trades and corporations of our citizens, there is, indeed, no one more intelligent, and in every way respectable, than the better, I mean by this the scientific, class of our druggists.

I will not enlarge on the mischief that must ensue to the public from the circulation of so much bad physic; the nuisance is gross and palpable; the simple expression of it is its strongest condemnation; and it does not attach to me more than to others to exclaim against it; but I may be permitted to express my sincere regret at the uncertainty in which it involves the science of medicine, and the discredit which it brings on its practice. In prescription no one now knows what he orders. How, then, can he presume to calculate upon the effects of his prescriptions, or to reason on them when obtained? From this constant source of error, I find it impossible to procure any information as to the effects of varied doses of medicine that can be at all depended on.

In the very outset of the *Materia Medica*, in the study of its elements, we are met by this perplexity, arising from the abuses of the drug trade. There is another bar to our improvement in the knowledge of drugs, as connected with the sale of them, which is the way in which they are dispensed. The materials may be of good average quality, yet may be compounded in wrong proportions, or by a process of manipulation inconsistent with the intentions of the prescriber. From the general ignorance among medical men on the subject of drugs, the prescriber may often mistake his medicines and their doses; he may be, and he often is, careless, or by chance inaccurate, but securities are taken from the Physician by age and education, to prevent, at all events to limit, his means of injuring the public. The compounder of his prescription is in most instances amenable to no inquiry, to no tribunal. In a shop that has been mentioned to me, a common porter has been habitually employed to compound medicines; and I have recently met with an instance in which the entire business was carried on, for months together, by a widow, with an infant in her arms. Boys and women have not unfrequently, in my own observation, been found in charge of a shop and its business during the absence of "the master."

The consequences are best illustrated by the police reports of the daily papers, and by such advertisements as the following: "The gentleman who purchased the carbonate of soda, tartaric acid, and *sp. lavendulæ comp.* is requested not to use them, but to apply for information as soon as possible."—See *Morning Herald*, Sept. 8, 1829. Some of those now present may remember the attempts which I made, in my lectures of last year, to direct the attention of the College to the disgraceful uncertainty of the pre-

parations of Colchicum in the different shops of this metropolis. In some the "Vinum Colchici" is a wine of the fresh root; in some a spirit of the dried root, or a spirit of the fresh root, and a wine of the dried; a wine of the seeds, or spirit of the seeds; varying again in the quantity of the ingredients, and in the time given to the preparation. In no two shops, visited consecutively, would the Vinum Colchici, as ordered by the Pharmacopœia, be met with; and certainly in no two would it be found to possess the same degree of strength.

In a tour of visits made officially to the retail shops, it was found that the "Cathartic Extract" was hard and black in all places but one, where it was soft and mouldy, being "seldom asked for." A proprietor of Senna Confection candidly acknowledged, that the light brown, dirty-looking compound, was not fit for "human medicine, but it might be worked up into boluses for horses." Oxalic acid was generally met with in a large bottle, on the lower shelf, and in front of the shop, next to sulphate of zinc, and other salts. White arsenic was in most instances kept as a powder. It was seldom marked "poison," and it did not appear that any precaution was observed in its sale. In more than one instance I found this deadly agent in a bottle bearing two different labels on its opposite sides.—*Med. Gazette*.

MR. RICHMOND'S MUSICAL PERFORMANCE.

The effects produced are the following: two series of sounds are heard; one exactly resembling the notes of a musical snuffbox, the other a succession of bass sounds; or a drône, which necessarily goes along with the higher notes.

Of the two series of notes, the first, or those which resemble the tones of a musical snuffbox, are not produced in the larynx; the second or the bass notes, on the contrary, are laryngeal. Mr. Mayo ascertained these points by the following observations. It is well known, that when sound is produced in the larynx, on its becoming grave the larynx always sinks in the throat; on its becoming sharper, the larynx always rises. But in Mr. Richmond's performance the larynx does not change its position with the alteration of the higher series of notes; while, on the contrary, it manifestly rises and falls with the alterations of the bass sound.

The bass sound then is laryngeal; but how are the higher tones produced?

The principle was originally discovered by Mr. Wheatstone, in analyzing the production of the musical sounds of the Jew's-harp, and by him shewn to apply to Mr. Richmond's performance. It is this.

Different volumes of air, like strings of different lengths, vibrate with different frequencies, and produce therefore different notes. Now if a vibrating tongue, such as that of a Jew's-harp, be made to vibrate before a volume of air, the vibrations of which are of the same frequency, the sound of the musical tongue causes the volume

of air to vibrate, and two sounds in unison are produced. But suppose the volume of air not to be unisonant with the tongue of the Jew's-harp, in some cases the volume of air will speak, or be thrown into vibration, in others it will not. A second sound will be produced, Mr. Wheatstone discovered, when the volume of air is one which vibrates multiples of the sound of the musical tongue. If, for instance, the tongue of the Jew's-harp vibrate 32 times in a second, volumes of air, that vibrate 64, 96, 128 times in a second, will be thrown into vibration through its vibrations. The skill of the performer on the Jew's-harp consists in shaping the cavity of the mouth so as to hold in succession such definite volumes of air as, being presented to the vibrating tongue of the instrument, reciprocate different multiples of the bass sound it produces.

These multiples are not found in sufficient number to contribute to the performance of a melody till the third octave above the bass sound, nor without the use of more bass sounds than one. Mr. Eulenstein, in his performance on the Jew's-harp, uses six instruments, rapidly substituting one for another, as he wishes to use multiples of a different bass sound.

In Mr. Richmond's performance the larynx is equivalent to the Jew's-harp in Mr. Eulenstein's, but, with this advantage in favor of the former, that it is much easier to alter the tension of the vocal chords in the larynx than to lay down and take up the Jew's-harp. The rest of the performance is exactly the same. The cavity of the mouth is shaped to reciprocate multiples of the bass notes, in a succession which forms a musical air. H. M.

THEORY OF ANIMAL MAGNETISM.

I shall conclude this paper with the following observations: For some time past, our physiological theories have manifested a decided tendency towards materialism. Of late, indeed, we seem to have got so much into the habit of speaking of the mental functions as being performed by certain organs, that we would appear to have entirely forgotten that every organism requires to be vivified by an active principle, that the employment of an instrument presupposes the existence of an intelligent agent. In our speculations upon these matters, we become so much interested in the play of the puppets, that we totally overlook the moving power; while contemplating the conditions of intelligence, we become blind to the principle.

But sensation and thought, as has been frequently remarked, are neither the properties nor any of the necessary effects of matter; material structure alone cannot be the cause of the vital phenomena; it may supply the organs or tools through the medium of which these are ostensibly manifested, but these manifestations cannot take place without the operation of an intelligent cause. "That there is some invisible agent in every living organized system, seems to be an inference to which we are led almost irresistibly. When we see an animal starting from its sleep, contrary to the known

laws of gravitation, without an external or elastic impulse, without the appearance of electricity, galvanism, magnetism, or chemical attraction; when we see it afterwards moving its limbs in various directions, with different degrees of force and velocity, sometimes suspending and sometimes renewing the same motions, at the sound of a word or the sight of a shadow, can we refrain a moment from thinking that the cause of these phenomena is internal, that it is something different from the body, and that the several bodily organs are nothing more than the mere instruments which it employs in its operations?"*

In the human economy, this invisible agent, this intelligent principle, which operates through the medium of certain corporeal organs, is called the soul. In the normal state of the organism, we know that our faculties of sensation and perception, at least, are exercised through the instrumentality of certain material organs, and hence physiologists have been led to consider these instruments as the necessary conditions of the exercise of these faculties. But are we prepared to maintain that, in any circumstances, the soul is incapable of exerting its energies in a different manner? Do we hold that it is the eye alone that sees, the ear alone that hears, &c. or shall we admit that there is an internal sense to which the impressions of sight, hearing, &c. are conveyed, and to which the material organs are merely subservient? And if we are disposed to make this admission, can we deny the possibility of impressions being communicated to this internal sense, in some extraordinary manner, without the necessary intervention of the usual organs? This is a question which is capable of being solved by experience; and if the cases I have adduced in this paper have been accurately observed and faithfully reported, of which there seems no reason to doubt, the question may be considered as having been already satisfactorily decided in the affirmative. If the phenomena observed are calculated to excite our wonder, and to call forth our scepticism, if they appear to be inexplicable and irreconcilable with any of our previous notions, let us remember that the cause of this may be found in the narrowness and imperfection of our preconceived systems; and this consideration should lead us to a careful review of the principles of our knowledge, rather than to an obstinate and irrational denial of the facts presented to us by experience.

Nil adeo magnum, nec tam mirabile quidquam,
Quod non paullatim minuant mirarier omnes.
Desine quapropter, novitate exterritus ipsa,
Expuere ex animo rationem; sed magis acri
Judicio perpende: et, si tibi vera videntur,
Dede manus; aut, si falsum est, adcingere contra.—**Lucretius.**

—*Colquhoun on Animal Magnetism.*

* Barclay, on Life and Organization, p. 370.

STATE MEDICINE IN GERMANY.

Proceedings of the Practical School of State Medicine in the University of Berlin, during the Summer Semester of 1833.

By DR. WAGNER, Professor and Stadt-Physikus.

The number of students who attended this course amounted to thirty-four; among whom were several doctors of physic and other licensed practitioners, most of them anxious to prepare themselves practically for the physicate examination. The number of cases submitted to us for medico-legal inquiry was 129, almost every one of them adapted for the instruction of the class. Reports, written out and argued, some of them in much detail, were severally drawn up on those cases.

A good deal of other business also was allotted to the students: for example, they had the opportunity of opening many bodies which did not absolutely require forensic investigation; these were the bodies of suicides, drowned persons, and of individuals who had been poisoned with sulphuric acid, &c. The chemical research was conducted in the latter cases, as well as in some inquiries connected with medical police, the adulteration of articles of food and medicine, for instance, by Dr. Gusserow: to him, and to Mr. Baerwald, the apothecary, who favoured us with the use of his laboratory, we have to acknowledge ourselves deeply indebted.

Of the 129 medico-legal cases, 113 related to living people, fifteen to persons found dead, and there was one case of poisoning with arsenic. Of the investigations on the living, ninety-four were concerning bodily injuries or ailments, and nineteen had reference to the state of the mind. Among the former, we were called upon to determine whether certain individuals who were arrested for debt, were able to endure the severity of imprisonment? whether others were fit to be brought up for trial, or to be removed from their homes? and whether certain persons were well enough to perform the duties of their respective offices? &c. Several of the alleged ailments in these cases turned out to be factitious, either altogether feigned, or whatever was really amiss was grossly aggravated: most of them were absurd complaints about chest affections, pains in the limbs, headaches, and piles. Where positive bodily injury had been inflicted, we were required to give our decision whether it came under that class denominated by the law injuries of a grievous nature, or whether (within the meaning of the criminal code) it involved a hazard of life, or was likely to entail a permanent mischief on the constitution or the limbs.

Among the remarkable cases of this kind which came before us, was the following one of attempted abortion. A young woman, seven months gone with child, had employed savine and other drugs, with a view to produce a miscarriage. As these had not the desired effect, a strong leather strap (the thong of a skate) was tightly bound round her body. This too availing nothing, her paramour (according to his own confession) knelt upon her, and

compressed the abdomen with all his strength: yet neither did this effect the desired object. The man now trampled on the girl's person while she lay on her back; and as this also failed, he took a sharp-pointed pair of scissors, and proceeded to perforate the uterus through the vagina. Much pain and hæmorrhage ensued, but did not last long. The woman's health did not suffer in the least, and pretty much about the regular time a living child was brought into the world, without any marks of external injury upon it. It died indeed four days afterwards, but its death could not be traced to the violence inflicted on the mother's person: all the internal organs appeared normal and healthy.

Three cases of violation (*stuprum puellæ immaturæ*) were submitted to us. The subjects were children of from three to eleven years of age. Positive signs of actual violation could not be made out, but that the attempts had been made was quite clear. In one case, a venereal infection had been communicated.

In a couple of divorce cases, the husband was in one instance charged with having a venereal taint in his constitution, but it could not be proved; and in the other, the wife, who was already advanced in years, was ascertained to be unfit for one of the ends of matrimony, from peculiar malformation, or want of development of the sexual organs.

Among the cases which involved inquiries into the state of the mental faculties, fifteen were of a civil, and the other four of a criminal nature. The former related chiefly to the ability of managing property, and the removal of guardianship where recovery was alleged to have taken place. In one of these instances the individual was deaf and dumb. The criminal inquiries were concerning persons who had usurped nobility, resisted the lawful authorities, or committed homicide under circumstances which made it questionable whether they were responsible agents.

In our medico-legal examinations of the dead, we met with two cases which had terminated fatally in consequence of fractures of the skull, with extravasation of blood into the substance of the brain. In another instance, several injuries had been inflicted on the integuments of the head by a blunt instrument, but without any apparent mischief to the bones of the cranium. The parts got well in the course of a few weeks, and no disturbance of the intellectual faculties had been observed. But all of a sudden the patient became comatose, and died in a few days. On examining the cavity of the head, there was not only found a deposition of pus between the skull and the dura mater, but beneath the latter such a quantity of purulent fluid effused, that the left hemisphere was completely compressed by it, and reduced to an ash-coloured substance; but the right hemisphere and cerebellum were in a normal state.

In a child that had been run over and killed, the spleen and left kidney were crushed, and in consequence much blood had been effused into the abdomen and cellular substance about the kidney.

No external injury, however, except a very slight excoriation, was observable on the body.

We met with but a single case of infanticide; yet that one served to afford us ample opportunity for examining the various tests employed in those investigations.

One of the students of the class lost his life through a wound received in dissection, whereby the great vessels of the forearm, near the elbow, were fatally injured.

Several questions were investigated relative to the causes and consequences of alleged lesions, and with a view to determine whether certain wounds had been absolutely, or only contingently mortal. These inquiries involved many complicated considerations, a somewhat detailed account of which Dr. W. gives.

We were also called upon medico-legally to examine a human skeleton, which was found in a tolerably perfect state in digging up the foundations of a building. It belonged to a male subject of about the age of fourteen. No injuries could be detected upon it. But the point to be ascertained, if possible, was, whether this skeleton had lain in the earth above twenty years or not, as this was material with reference to its affording the corpus delicti for a criminal proceeding. An accurate scrutiny of the state of the parts, with especial regard to the nature of the changes which subjects undergo when interred in different soils, gave us reason to infer that this skeleton had been buried perhaps about twelve or fifteen years in the spot where it was found.

The following case of suicide was remarkable. A criminal, who had been shut up alone in a dark dungeon, when visited by his keeper, not long after, was found lying dead on the floor. It was thought at first that he had had a fit of apoplexy. A vein was opened, and other means of recovering him were tried, but to no purpose. It was now for the first time noticed that he had a foreign body in his mouth; and, upon examination, it proved to be a piece of woollen cloth two ells long and a quarter broad, a shawl, in fact, which the wretched man had thrust into his throat. Had this person been found dead under other circumstances, what reason would there not have been for suspecting that he had been murdered by a strange hand!

A case or two of malapraxis also came before us, particularly one in which, through the bad management of a midwife and an accoucheur, a woman had been allowed to sink after delivery, from uterine hæmorrhage.

And lastly, we investigated a solitary case of poisoning, in which a child had drunk from a cup that contained fly-poison (a preparation of arsenic.) Death ensued in twelve hours. But, notwithstanding the most minute search of the intestinal canal and its contents, not a vestige of the deleterious substance could be detected. This was most probably owing to the very small quantity taken, and the evacuation effected by the vomiting.—*Dr. Cummin, in Med. Gazette.*

JOHN HUNTER.

In conclusion, gentlemen, let me express to you my conviction, that, as a physiologist and surgeon, John Hunter has had no equal in any age or country; that he was one of those powerful minds, appearing only at long intervals, of which this island, small as it is, has produced so great a number; that his name must be inscribed on that bright constellation of genius which already bears those of Harvey and Sydenham, of Bacon, Locke, and Newton, of Shakspeare, Milton, Scott and Byron. These gifted mortals, with kindred spirits, who have drawn inspiration from their example and works, shed over our land an intellectual glory equal to its renown in arts and in arms. The bosom of every Englishman glows with an emotion of conscious pride at the enumeration of these revered names. If, gentlemen, the time should ever come, when the institutions and the power of our beloved country shall have passed away, their memory would linger round the spots consecrated by their earthly labours; the land on which they trod would still be a watchword to the earth;—it would be peopled with the glorious recollections of its departed sages, as the sight of Greece recalled to the truly noble poet, who yielded up his life on her classic soil, the heroes who had fallen in her defence:

“ They fell, (he says,) devoted but undying;
The very gale their names seemed sighing;
The waters murmured of their name;
The woods were peopled with their fame;
The silent pillar, lone and gray,
Claimed kindred with their sacred clay;
Their spirit wrapped the dusky mountain,
Their memory sparkled o’er the fountain,
The meanest rill, the mightiest river,
Rolled mingling with their fame for ever.”

—*Lawrence’s Hunterian Oration.*

SYMPTOMS OF PAIN IN THE HORSE.

Pain is a symptom of most diseases; one that originates in disturbance or impression of the nervous textures distributed over the body. Speechless as the horse is, yet, as he is well known to possess many ways of making his wants understood in health, so in numerous instances under disease does he (to those acquainted with his ways) point out the seat, the kind, and the intensity of his sufferings, with an instinctive sagacity hardly to be credited by persons who are strangers to his manners and habits. The drooping, dolorous, desponding eye, in several chronic disorders; the wistful looking back at the flank, in pneumonia; the fearful, and even supernatural vividness of the eye in colic, just as the approach of another paroxysm is felt; together with the wild phrenzied roll of it, in times of violent pain and delirium; are so many examples of morbid physiognomy not to be misinterpreted by the practitioner of experience. Thus we may apply to horses what Sir Thomas Brown has said of men: “ In long observation we may acquire a

physiognomical intuitive knowledge, judge of the interiors by the outside, and raise conjectures at first sight.”

[From *Hippopathology, a Systematic Treatise on the Disorders and Lamenesses of the Horse*, by MR. WM. PERCIVAL. It would be absurd in us to speak *ex cathedra* of this work; for, to confess the truth, we never doctored a horse in our lives; we must, consequently, leave the *ἰππιατροὶ* to give a detailed account of its merits. There is one point, however, of which we are able to judge: the book is remarkably clear and intelligible; its free and masculine style does Mr. Percival infinite credit.—ED. *Med. Quart. Rev.*]

SMALL HOSPITALS.

There are only fifteen beds in the hospital of Goettingen, and I do not wish for more. I do not think that the experienced practitioner is formed by the number of patients. Experience is the result, not of seeing merely, but of reflecting. It is not eating, but digestion, that gives strength. A physician who tells us that he visits a hundred and fifty, and even a greater number of sick people daily, has, in my opinion, so little pretensions to the title of an experienced man, that I would even deny that he had any experience at all.—*Lancet*, from *Richter's Med. and Surg. Observ.*

[Fifteen beds may be enough for the physician, but more, we think, are required for the pupils; just as a few books are enough to study and digest, but we wish for a library to consult: for the pupil is disappointed, if, in a year's attendance, he has not had an opportunity of witnessing almost everything that is remarkable in disease, and brilliant in operations.—ED. *Med. Quart. Rev.*]

PURE TANNIN.

Still more recently a friend of mine, M. Pelouse, professor at the Polytechnic School, whilst treating by æther, in a vertical tube, the powdered poison-nut (*Strychnos nux vomica*), made a discovery of much importance in organic chemistry, and I doubt not also in medicine. I allude to *tannin*. This immediate principle, so universal in the vegetable kingdom in the wood, the roots, and bark of the oak, the bark-tree, the ratanhia, &c.—which forms the active principle of almost all the astringents used in medicine,—this immediate principle had long since been obtained, but always impure, constantly combined with the acids or alkalies employed in its preparation, constantly insoluble and modified. But, in treating by æther the powder of St. Ignatius's bean, of the gall-nut, of catechu, and several other substances, in a vertical apparatus, M. Pelouse saw a yellowish liquid, transparent, and of a syrupous consistency, composed of tannin and æther, pass off: it was soon followed by a stream of pure æther, which remained floating on the surface of the dissolution of tannin. The æther carefully poured off, the syrupous dissolution was evaporated at a low heat, and gave a residue of tannin perfectly pure, crystallisa-

ble, soluble in water and alcohol; in short, possessing all the properties which characterize it in the plants in which it exists.

This simple process is perfectly applicable to the gall-nut, and yields a large proportion of tannin. This new produce thus prepared, will bear to all other astringents used in medicine, the same relation that quinine bears to bark, morphine to opium; and like them may, it appears to me, be substituted with advantage to its parent substances. To M. Pelouse it belongs to indicate the full bearing of his brilliant discovery, and I am happy to announce that he is on the point of publishing the results of his experiments on this interesting subject.—*The Monthly Journal of Medico-Chirurgical Knowledge.*

[This extract is from the polyglot Journal mentioned in our last number: in spite of its dog-English, its curiously small type, and its being three or four months behindhand, our contemporary (if it is not an anachronism to call it by that name,) has great merits: its articles are pregnant with good sense and practical information, and the plates of topographical anatomy are not only extremely useful, but remarkably beautiful.—*Ed. Med. Quart. Rev.*]

ON THE ACTION OF CHLORINE ON METALLIC IODIDES.

By A. T. THOMSON, M.D., Professor of Materia Medica in the University of London.

To Mr. Richard Phillips.

5th May, 1834.

Dear Sir: It has been long known that liquid chlorine, that is, a solution of chlorine in water, added to solutions of metallic iodides, or, as they then become, hydriodates, sets free the iodine, and thus enables it to be detected in minute quantity on the addition of starch. But it is also well known, that a very small excess of the solution of chlorine destroys the colour of the iodine of amidine, and renders the test fallacious. To remedy this disadvantage, I have substituted chlorine gas for the liquid chlorine, and find that it is capable of discovering the minutest portion of any hydriodate in solution, even in mixed fluids. The method of testing is to mix a small quantity of solution of starch in the fluid to be tested, and pouring on the surface of the liquid some chlorine gas; as soon as the gas reaches the surface a thin film of blue appears, and gradually pervades the whole of the liquid, if any hydriodate be present. The advantage of the test is the impossibility of adding too much, as the action commences on the surface, and the superabundant chlorine, which is mixed with the common air in the upper part of the test tube or the glass, is soon dissipated.

As a proof of the delicacy of the test, I may add, that four minims of a solution of hydriodate of potassa, containing one drachm in the fluid ounce, were added to a fluid ounce of water, and tested by the method above described, when the presence of free iodine was immediately rendered evident. The proportion of the hydriodate in

this case being only $\frac{1}{480}$ th, I conceive that the test is adequate for any experiment in which it may be required to ascertain the presence of a hydriodate in solution.

The theory of the process is too obvious to require any comment. Your making this test generally known through the medium of the *Philosophical Magazine*, will greatly oblige,

Yours faithfully,

A. T. THOMSON.

—*The London and Edinburgh Philosophical Magazine.*

MEDICAL POLITICS AND INTELLIGENCE.

WHAT CAN THE LEGISLATURE DO FOR US ?

WE fear that if an impartial estimate were made of all that can be done for the medical profession by force of law, the catalogue of possibilities would bear too great a resemblance to Martial's review of his own works :

Sunt bona, sunt quædam mediocria, sunt mala plura.

In the first place, the *bona* are, the repeal of the Apothecaries' Act, that epitome of mischievous absurdities. By repealing this monstrosity, we get rid of the apprentice-system, and youths of sixteen, destined for the practice of physic, will no longer spend five years in mixing medicines, as this is an art that may be learned admirably well in three months.

Then for the *mediocria*, we may have some little alterations in names and titles ; a wholesale M.D. manufactory will perhaps be set up in London, and diplomas may be granted on terms that will utterly ruin the established factories in the North. This will make a number of people very happy for six months, till they wake from their dream of dignity, and regret the few but solid sovereigns which have left an empty parchment as their substitute.

And now, alas ! for the *mala plura*. We fancy that a crusade against unlicensed practitioners would be very agreeable to many of the so-called medical reformers ; for, as the physicians, a century and a half ago, found themselves undersold by the apothecaries, and attempted, but in vain, to check the plebeian innovation by verdicts and decisions, so now the apothecaries complain that the druggists are ousting them from practice, and that a man who knows no more than an apothecary of Queen Anne's days, will make his comfortable £1000. per annum by counter-practice, with occasionally a few snug visits under the rose. According to Gray, indeed, in the preface to his Supplement to the Pharmacopœia, the druggists' practice is legal, as the Apothecaries' Act was restricted to those who "practise as apothecaries," and "à fortiori, the midwives, herbalists, cuppers, barbers, electricians, galvanisers,

dentists, farriers, veterinary surgeons, village wisemen, and cow-leeches, are left in full possession of their ancient practice, and may be employed by those who place confidence in them, as they cannot be confounded with apothecaries, though the chemist and druggist may." (Fourth edit. p. xxvii.)

We would not, however, recommend any of the village wisemen, or other of the younger sons of Galen included in the above quotation, to risk a visit to the Court of King's Bench on Mr. Gray's authority; for, though his treatise is excellent in pharmacology, it is by no means a text-book in law.

Still, legally or illegally, the druggists must and will practise, and, we will add, ought to practise; as long as extreme cheapness is essential to many customers, so long must slight or coarse goods be got up for their use, all Acts of Parliament to the contrary notwithstanding. Everybody would like to have the advice of the King's physician rather than go to Mr. Bolus, but Mr. Bolus gives credit, and this is a *sine quâ non* with many patients. Other sick again have neither a guinea for the first, nor courage to face the voluminous bill of the second; but they have ninepence, and this will buy them the somewhat hasty, yet perhaps decent empirical advice of a druggist, gabbled across his counter, and terminating in the exhibition of a vigorous black draught.

The cant of pretended reformers about "protecting the public from irregular practitioners," is evidently based on the false supposition that patients are quite in the dark as to the relative merits of medical men; but this is rarely the case. A man afflicted with cynanche, though his capacity were as straightened as his fauces, would willingly seek the advice of a Baillie or an Armstrong; it is the *res augusta domi* which compels him to go to somebody in a court, or to buy a box of black currant lozenges, or to let his throat get well of itself.

We should be glad to know, too, by what unheard-of severities, by what Russian discipline, it is proposed to put down all practice, save by men with properly sealed parchments? Are we to have officers of medical excise, empowered to enter houses strongly suspected of harbouring unlicensed medicine-chests? Or will my Lady Bountiful be allowed (like the master of a house under the Conventicle Act,) to physic her household and sundry poor neighbours, provided that her hospital does not exceed twenty beds? Shall we hear of the triumphant seizure of a cask of pennyroyal water, or will rhubarb pies be searched, charged on oath with being made with the root instead of the stalk?

In Spain, indeed, a dose of tartar emetic cannot be got without a physician's prescription; and a learned friend of ours, who found himself compelled to put some of that triple salt into his wine, as a thief-trap, was obliged to lay a deep scheme to obtain possession of it. It is impossible to imagine that the hideous chimeras of such *soi-disant* medical reformers can be realised; yet we fear

that our profession, in calling for the aid and protection of the legislature, will find themselves in the condition which history and fable alike point out as the inevitable destiny of the weak, who intrust the management of their affairs to the strong.

SELF-SUPPORTING DISPENSARIES.

In our second Number we made a few observations on the advantages to be derived from these useful institutions, and we return to the subject with the greater pleasure, that some attempts (feeble and imperfect ones, but still attempts,) have been made to supply a deplorable void in the London practice of physic. The first that we heard of is called the Medico-Chirurgical Dispensary, situated in Crown-street, Soho; and one of its admission letters, now before us, informs us, that "this institution was established for the purpose of remedying the objections which at present apply to dispensaries, namely, the difficulty and loss of time incurred in procuring letters of admission. It is not supported by charitable contributions, but by a small charge to the patient of fourpence per day, or two shillings per week, which it is computed will repay the expenses attending it. When patients require to be seen at home, the charge will be double." We really see no objection to this method of paying a groat a day, by which a man in middling circumstances may enjoy the luxury of constant medical attendance for six pounds one shilling and eightpence per annum; but we are rather annoyed by a short sentence which follows: "A physician and surgeon attend daily at twelve o'clock." Now, although every medico-chirurgical dispensary cannot expect to be attended by physicians or surgeons of name in one sense, they ought to be of name in the other: for our own part, we should not like to be physicked or incised by men of no name at all. In truth, we would rather have pseudonymous than anonymous doctors; and we observe in authentic records, that, when Apollo was wont to wander upon earth, he always took up some name, and never practised under the title of δ $\delta\epsilon\iota\nu\omicron\varsigma$, or Dr. —. However, as six months have elapsed since we were favoured with the dispensary letter in question, we trust that this deficiency has been supplied.

We have likewise received the prospectus of another institution, accompanied by the following note: "*The surgeons of the St. Pancras Medical Association present their compliments to the Editor of the Medical Quarterly Review, and request to be favoured with his opinions in the next Number of that Journal.*"— We trust that we shall not be thought wanting in courtesy, far less in justice, if we state two most obvious objections to the plan of this institution. The first may be considered as a matter of form or ceremony, but it is not so. The only persons whose names appear on the face of the prospectus, as members of the associa-

tion, are the eight medical men who intend to treat the patients. Now, it appears to us absolutely requisite that every scheme of this kind should be backed by some persons of high station ; some persons, in fact, whose rank, though it by no means removes them from strife or dispute, at least elevates them far above the sphere of professional squabbles, and who are valuable to charitable societies, not only as patrons, but as umpires. Such persons may be compared to the weight in a clock, which, though apparently inert, is essential to the existence of a well-regulated movement. It is very possible that this objection, like the one we made to the Crown-street document, may have been annulled by the progress of the institution, but our second one is more important.

The medical men attached to this institution appear to be all of them general practitioners, and we find them telling us, in consequence, that "the surgeons constituting this association will dispense their own prescriptions, thus saving the cost of keeping up a dispensary house and appendages, and salary of dispensing apothecary ; a charge equal to at least a third of the whole income of such institutions : in other words, of every guinea subscribed by the humane and excellent supporters of these charities, less than 14s. are appropriated to the literal benefit of the poor."—Surely this is very poor reasoning ; for, if the tripartite division of the profession into physicians, surgeons, and druggists, be beneficial, (and few are crazed enough to deny it,) then, as Horace says, *Æque pauperibus prodest, locupletibus æque* ; and the niggard economy which would deny the poor the benefit of the division of scientific labour is worthy of anything but applause. What should we say to a *gastronome* who should discharge his kitchen and scullery maid, under the shallow pretence that their wages might be "appropriated to the literal benefit" of his palate ? We should say he was stark mad, and deserved never more to taste a savoury ragout. In small towns, as in small kitchens, a very minute division of labour cannot take place ; but why should we be driven to shifts in London, and why, above all, in a dispensary, whose practice, conducted under the public eye, should be a model of all that is rational and scientific ?

We could wish to see some societies of this kind intended for persons, who, though of a higher grade than those marked out by the St. Pancras Association, are yet wholly incapable of facing a doctor's bill. To a single man, living on 100*l.* a year, or a married man with an income of 250*l.*, must not the anticipation of a long doctor's bill be more bitter than all the columba and quassia on which it is founded ? To such a man the existence of a society which, for a guinea a year paid for each member of his family, would ensure him against one (not the least) of his anxieties, would be a real blessing : it would be like insurances against fire, and, like them, would mark an era in civilization.

METEOROLOGICAL REGISTER,

FROM MARCH 1 TO MAY 31.

By Messrs. HARRIS and Co., Mathematical Instrument Makers, 50, High Holborn.

1834.	Thermometer.		Barometer.		De Luc's Hygrometer.		Winds.		Atmospheric Variations.
	max.	min.	max.	min.	max.	min.			
Mar. 1 to 7	57	43	30.20	29.56	80	74	WSW	W	fine, rain, cloudy
14	58	37	.26	30.07	77	73	WNW	NE	fine, foggy, rain
21	51	32	.30	.10	71	66	ESE	SE	fine, foggy, cloudy
31	55	34	29.94	29.35	76	66	WSW	SW	fine, cloudy, rain
April 1 to 7	59	42	30.22	30.01	75	65	NW	NNE	rain, fine, cloudy
14	52	33	.12	29.76	75	63	N	ESE	fine, showery, fine
21	62	38	.11	.93	70	61	NNE	ESE	fine, fine, fine
30	64	40	.03	.06	74	62	SSW	NNE	fine, rain, cloudy
May 1 to 7	72	49	30.15	.43	75	64	SW	SSE	fine, rain, fine
14	72	52	.02	.35	69	61	SW	NW	fine, cloudy, rain
21	70	49	.20	.23	67	61	SW	NE	fine, showery, cloudy
31	72	45	.16	.81	63	58	NE	NNE	fine, fine, cloudy.
The quantity of Rain fallen in									} of an inch.
March, 94-100ths									
April, 49-100ths									
May, 92-100ths									

NOTICES.

We have received Dr. KAY on *Asphyxia*, Dr. WILSON PHILIP on *Sleep and Death*, Dr. HENDERSON'S *Translation of Raspail*, Mr. HEMING'S *Translation of Mad. Boivin, three Parts of a Cyclopadia of Practical Medicine and Surgery*, published at Philadelphia, the *Dublin Journal of Medical and Chemical Science*, and several Fasciculi of Dr. QUAIN'S *Anatomical Plates*: we shall review them in our next.

We also beg to acknowledge the receipt of a "Sketch of the Medical Topography of the Hundred of Penwith, comprising the District of the Land's End, in Cornwall," by Dr. FORBES. This interesting Paper forms a part of the second Volume of the *Transactions of the Provincial Medical Association*, which we have reviewed in our present Number.

We regret that, owing to an unforeseen disappointment, we have not been able to review Dr. BOW'S *Work on Inflammation* in this Number; but we shall not fail to do so in our next.

Considering it sufficient to give an account of Books actually published, we think it unnecessary to tantalize our readers with probable or possible Books; and we therefore abstain from giving what is called "Literary Intelligence." Those advertisements of Books about to be published can appear, however, in our *Advertising Sheet*.

Contributors are requested to favour us with their Communications before the 16th of the month preceding publication.

We have not inserted Dr. WILLIAMS'S Letter, as it seems to have been sent as a circular to all the Medical Journals: it was printed in the *Lancet* a few weeks since.

Mr. HOWSHIP'S Paper on the *Æstrus Humanus* has been received, and will appear in No. V.

INDEX TO VOL. II.

	Page.
Abscess in the groin, from swallowing a pin, case of	403
of the thigh, case of deep-seated	459
Absorbents, function of the	299
Abuse of spirituous liquors, Mr. Marshall on the	281
Acetate of lead should be prescribed with vinegar	40
Aconite, homœopathic formula for administering	400
Adams's Translation of Paulus Ægineta, reviewed	6 and 9
Advice, every one gets the best he can afford	493
Alphabet of Medical Botany, by Professor Rennie	} reviewed 50 <i>et seq.</i>
Botany	
Ammoniacum, its origin	44
Amputation of the thigh, cases of	412, 414, 415
Anatomical Plates, by Jonas Quain, M.D., reviewed	146
Anatomy, Introduction to the Study of, by James Paxton, reviewed	148
general	347
of the Eye, Dalrymple on the, reviewed	340 <i>et seq.</i>
and Physiology of the Liver, Mr. Kiernan on the, reviewed	258 <i>et seq.</i>
Animal Magnetism, Mr. Colquhoun on, reviewed	135 <i>et seq.</i>
Dr. Pritchard's observations on	137
magnetism, theory of	484
temperature	373
Anchylosis, Sir B. C. Brodie on	258
Apparent direction of eyes in a portrait	212
Aretæus knew the division of the nerves into sensory and motory	66
editions of	142
quoted	365
Armstrong's Lectures, reviewed	1 <i>et seq.</i>
Armstrong erroneously supposed the ancients ignorant of anatomy	2
Arsenic, Dr. Murray on the tests for	287
Ashburner on Dentition, reviewed	147
Atkinson's Medical Bibliography, reviewed	141
Auscultation obstetric	83, 274
Bardsley on the efficacy of strychnine in paralysis	341
Bathing neglected in this country	13
Bell Sir C., Mr. Mayo on the discoveries of	450
Belladonna, its efficacy in strangulated hernia	465
Billard on the Diseases of New-born Infants, reviewed	111 <i>et seq.</i>
Births in Paris during the years 1831 and 1832	214
Blood, analysis of in a case of cholera	107
Bloodletting as a diagnostic mark of disease	325
Bloxam Mr. Wm., his Cyclopædia of Practical Surgery, reviewed	399
Blundell, Dr. on the Principles and Practice of Obstetrics, reviewed	308 <i>et seq.</i>
Boarding-schools for girls, their bad effects on health	389
Botany, Professor Rennie's mistakes in	50 <i>et seq.</i>
Brain the sole organ of the will, according to Le Gallois	33
Bridgewater Treatise, Dr. Prout's, reviewed	267 <i>et seq.</i>
Brodie on the Diseases of the Joints, reviewed	241 <i>et seq.</i>
Bronchocele, observations on the treatment of, by James Reid, esq.	425
cases of	439 <i>et seq.</i>
Calculous diseases said to be rare among sailors	326
Caries of the spine	259
Carswell, Dr. Illustrations of the Elementary forms of Disease by, reviewed	131 <i>et seq.</i> , 397 <i>et seq.</i>
Catarrhal and Catarrho-rheumatic ophthalmia, observations on, by Frederick Tyrrell, esq.	416
Celsus quoted	3, 55

Chlorine, inhalation of	41
its action on metallic iodides	491
Cholera, the Croonian Lectures on, by Dr. Roupell, reviewed	97 <i>et seq.</i>
malignant, a disease of modern origin	97
is it contagious?	98
earliest cases of in London	99
bleeding in	100
emetics in	103
salines in	104
stimulants in	<i>ib.</i>
purgatives in	105
narcotics in	<i>ib.</i>
malignant, its resemblance to asthenic fever	107
Chomel's Lectures on Typhus Fever, reviewed	343 <i>et seq.</i>
Chorea, sancti Viti, case of	196
Circular and flap operations, comparison of the	411
Dr. Tolefree on the	452
Club-foot cured by division of the tendo-Achillis	466
Codeine, therapeutic effects of	206
Colchicum in erysipelas	183
its use in inflammation of the synovial membrane	248
College of physicians	234
a well-regulated body	395
Colquhoun on Animal Magnetism, reviewed	135 <i>et seq.</i>
Combe, Dr. on the Preservation of Health, reviewed	388 <i>et seq.</i>
Compilation, the difficulty of	54
Condylomata cured by creosote	453
Congestion of the brain in new-born infants	114
Congestive fever, Dr. Armstrong's account of	10
Conolly, Dr. his life of Dr. Darwall	367
Constipation, case of, successfully treated by the introduction of air into the bowels	203
Constitution of a patient to be inquired into	328
Consumption Curable, by Dr. Ramadge, reviewed	320 <i>et seq.</i>
Copaiba, method of ascertaining its purity	45
Cornea, on the structure of the covering of the	215
Counterblaste to Tobacco, King James's	479
Cours Théorique et Pratique d'Accouchemens; par J. Capuron, reviewed	273 <i>et seq.</i>
Crotchet the, detestable	279
Crowing inspiration of children, Dr. Hugh Ley, on the	205
Curtis, on the Preservation of Sight, reviewed	144
Cyclopædia of Practical Medicine, Part XX., reviewed	78 <i>et seq.</i>
of Practical Surgery, reviewed	399
Dalrymple, on the Anatomy of the Eye, reviewed	340 <i>et seq.</i>
Davies, Dr. Henry, Cases extracted from the Note-book of	179, 402
Dead bone, absorption of, in necrosis	301
Deafness, case of	21
chronic, method of ascertaining its intensity	18
irritative and torpid, nervous	25
pathology of, hitherto neglected	17
Death of new-born infants from anormal states of the umbilical cord	462
Deaths in Paris in 1831 and 1832	214
Demonstration of the Nerves, by Joseph Swan; Part IV., reviewed	134 <i>et seq.</i>
Dental Guide, the Parents', by William Imrie, reviewed	150
Dentition, Dr. Ashburner on, reviewed	147
Diagnosis, Dr. M. Hall on the Principles of, reviewed	325 <i>et seq.</i>
Diagnosis of cardiac diseases by the stethoscope is still in an embryo state	471
Digestion, Dr. Prout on the function of	270
Digitalis; in what dose should it be given	454
cases of poisoning by	<i>ib.</i>

Diseased joint, post-mortem examination of	302
Diseases, origin of	379
of children, Dr. Walker on the	384
Dislocation of the shoulder	363
Dispensaries, self-supporting	494
Dissertations on Points of Practical Medicine and Surgery, by Dr. Richter, reviewed	331 <i>et seq.</i>
Dissection of the nerves, observations on the	135
Dowson's Introduction to the Study and Practice of Medicine, reviewed	151
Dropsy, Dr. Armstrong on the treatment of	204
Druggists' practice legal, according to Gray	492
Drugs, state of, in London	481
Dyspepsia biliosa, efficacy of emetics in	45
case of	<i>ib.</i>
Ear, chronic diseases of, divided by Kramer into three classes	20
Earl of Bridgewater left an eccentric legacy	268
Eccles on the Ulcerative Process, reviewed	137
Ecstasis, remarkable case of	78
Edinburgh graduates	140
Medical and Surgical Journal, Nos. CXVIII. and CXIX., reviewed	280 <i>et seq.</i>
Elongation of the limb in incipient disease of the hip-joint	307
Embryotomy, the most knotty point in medical ethics	311
Empyema cured by operation	191
Encephaloid structure, case of conversion of the right lung into an	468
Encysted omental dropsy, case of	404
Equilibrium, sense of, Mr. Herbert Mayo on the	405
Erysipelas, cases of, treated by colchicum	183
Erysipelatous inflammation of the meatus auditorius	21
Essay on the Physiology of the Iris, by Mr. Walker, reviewed	150
Examination into the Causes of the declining Reputation of the Medical Faculty of the University of Edinburgh, reviewed	139 <i>et seq.</i>
Experiments for determining the sentient qualities of nerves not very satisfactory,	91
Eustachian tube ; Dr. Kramer's method of catheterizing	19
tube and tympanum, diseases of	23
tubes, case of obstruction of	24
tube, adhesion of its sides	25
Fairy-rings	215
Fever protracted, arising from the state of the liver	125
Fevers, Paulus Ægineta on	73
Flood, Dr. Valentine, his Anatomy of Hernia, reviewed	399
Fœtus, pathology of the	473
of the whale	231
Foramen of Soemmering	340
Fordyce on fever, quoted	108
Forestus, quoted	318
Fox, Douglas, on the Signs, Disorders, and Management of Pregnancy, reviewed	401
Foxglove stimulates the genitals	48
its inutility in hydrocephalus	48
Fractures of the leg, use of gypsum in the treatment of	331
Fumigating Baths, Observations on, by Jonathan Green, reviewed	146
Fungus hæmatodes of the bones, case of	263
Galen, his views of the nervous system	66
Gardener's Dictionary, by Philip Miller, reviewed	390
Gastric fever, Mr. Poole on a	281
Giddiness leads to nausea and vomiting	480
Graves, Mr. F. his Hortus Medicus, reviewed	385 <i>et seq.</i>
Green on Fumigating and other Baths, reviewed	146
Gypsum, use of, in treating fractures of the leg	331

Hæmaturia, astringents useful in	41
Hæmorrhoids, Dr. A. T. Thomson's observations on	40
Hall, Dr. M., on the Reflex Function of the Medulla Oblongata, and the Medulla Spinalis, reviewed	25 <i>et seq.</i>
on the Principles of Diagnosis, reviewed	32 <i>et seq.</i>
Heart, functional derangement of the, remarkable case of	126
foreign body found in the	363
Dr. Spittal, on the diseases of the	285
its temperaments, according to Paulus Ægineta	71
Dr. Armstrong, on chronic disorders of the	471
Hemiplegia, table of cases of, treated with strychnine	355
Hemorrhage from leech bites, method of stopping	14
Hepatic veins	289
Hernia, the Anatomy and Surgery of Inguinal and Femoral, by E. W. Tuson, reviewed	145
Hernia, Anatomy of, by Dr. Valentine Flood, reviewed	399
Hernia strangulated, case of, with adhesions to the sac, by Mr. Valentine	448
Hidrotic fever	314
Hippocrates quoted	65
on erysipelas of the parts about the throat	75
Hippomaneæ	226
Hohl, Dr., Treatise on Obstetric Exploration by, reviewed	83 <i>et seq.</i>
Holland, Dr. G. Calvert, Inquiry into the Principles and Practice of Medicine, reviewed	370 <i>et seq.</i>
Homœopathy	228
Homœopathic notation	401
Hooker's Journal of Botany, Part I., reviewed	149
Hope's, Dr., Illustrations of Morbid Anatomy, reviewed	367 <i>et seq.</i>
Horse-shoes	218
Horse, symptoms of pain in the	489
Hortus Medicus, by Mr. Graves and Dr. Morris, reviewed	385 <i>et seq.</i>
Hospital physicians should improve the practice of physic	343
student, the	391
Hospitals, advantages of small	490
Howship, Mr., case of meningitis, by	446
Hunter, John	489
Hutchison, Mr. Copland, his great improvement in the treatment of erysipelas	461
Hydatids, case of, by Dr. Craigie	284
uterine case of	363
Hydrocyanic acid, test for	217
Hydrophobia, case of, by Mr. Grindrod	360
Hydrostatic test, Mr. Jennings on the	365
Hypertrophy, seats of	368
of the mammæ, case of	477
Hypochondriasis, case of	189
in medical pupils	190
Illustrations of the Elementary Forms of Disease, by Robert Carswell, M.D., Fasc. I.—IV., reviewed	131 <i>et seq.</i>
Fasc. V., reviewed	397
of Morbid Anatomy, by Dr. Hope, reviewed	367 <i>et seq.</i>
Imrie's Parents' Dental Guide, reviewed	150
Inflammation of the abdomen	327
of synovial membrane, symptoms of	246
treatment of	247
Inflammatory softening of the cellular tissue	397
Inhalation of Iodine and Chlorine in Phthisis, Treatise on the, by Sir Charles Scudamore, reviewed	127 <i>et seq.</i>
Sir C. Scudamore's directions for	128
Dr. Ramadge on	321
Inosculation of the veins of the liver	291
Inquiry into the Principles and Practice of Medicine, by Dr. G. Calvert Holland, reviewed	370 <i>et seq.</i>

Insanity, Dr. Smith on	284
Interstitial absorption of bones	337
Introduction to the Study and Practice of Medicine, by John Dowson, M.D.	
reviewed	151
Intus-susception, on the sanative process of nature in	337
Iodine, Dr. Lugol's formulæ for the administration of	47
Ioduret of iron	82
method of preparing the	<i>ib.</i>
Jacob, Dr., his membrane	342
Jalapine, its characters	46
Joints, Wickham on the Diseases of the, reviewed	296 <i>et seq.</i>
Journal of Botany, Part I., by Dr. Hooker, reviewed	149
Key on the Ulcerative Process in Joints, reviewed	296 <i>et seq.</i>
Kidney, tuberculous affection of the, case of	361
Kiernan on the Anatomy and Physiology of the Liver, reviewed	288 <i>et seq.</i>
Knee-joint, method of puncturing	249
Kramer on Chronic Deafness, reviewed	17 <i>et seq.</i>
Labour tedious, from adhesions in the vagina, case of, by Dr. H. Davies	181
Laryngeal nerves, effect of the division of the superior	28
Laryngitis, case of, cured by inhalation	129
Leech-bites, Dr. Thomson's method of stopping the bleeding from	40
Leeches preferred to cupping by Dr. Armstrong	13
Lecturer, qualifications of a good	1
Lectures, their advantages and disadvantages	308
Licentiate of the College of Physicians, his pamphlet on Medical Education, reviewed	391 <i>et seq.</i>
Lithotomy by the rectum, case of, by Mr. J. Dawson	357
in Italy	196
Liver, Mr. Kiernan on the functions of the	295
its temperaments, according to Paulus Ægineta	73
case of tumour in the region of the, by Dr. Macnish	286
Lucretius quoted	485
Maceration of different textures of the body in water	286
Macilwain, Mr., letter from	207
Madhouses, regulation of	208
Malignant disease of the joints, case of	262
Mammæ, case of hypertrophy of the	477
Marasmus, case of	402
with omental tumour, case of	403
Marriages and births, their relative proportion	81
Mayo, Mr. Herbert, on the sense of equilibrium, and on its disturbance	405
on the circular and flap operations	411
on Sir C. Bell's discoveries	450
Mead, Dr., quoted	396
Measles mentioned by the Arabian writers	76
Meatus auditorius imperforate, case of	95
Medica Sacra, reviewed	396
Medical Bibliography, by James Atkinson, reviewed	141 <i>et seq.</i>
reform	232
Medicine, the physiology of the sick man	371
Medicines, on the classification of, by J. Stevenson Bushnan, F.L.S.	152 <i>et seq.</i>
Medulla spinalis, its reflex function	26 <i>et seq.</i>
Meningitis, case of, by Mr. Howship	446
Mercury, on the Influence of Minute Doses of, by Dr. A. P. W. Philip,	
reviewed	121 <i>et seq.</i>
Metamorphosis of plants	52
Metastasis of diseases	326
Meteorological Register	240, 496
Miller, Philip, his Gardener's Dictionary reviewed	390
Morbid formation of bone in the muscles	334
Morris, Dr., his Hortus Medicus reviewed	385 <i>et seq.</i>
Muscular action, its four modes	28
sense	406

Nerves, a Treatise on Diseases and Injuries of the, by Joseph Swan,	
reviewed	90 <i>et seq.</i>
their painful affections	90
partially divided	94
diseased cases of	200
Nervous sympathy generally recognized by physiologists	29
Neuralgia, intermittent case of	92
two cases of, cured by bark	93
New-born Infants, Treatise on the Diseases of, by Dr. Billard, reviewed	111 <i>et seq.</i>
Nightmare, Dr. Strahl on, reviewed	315 <i>et seq.</i>
its symptoms	315
diagnosis of	317
prognosis of	<i>ib.</i>
treatment of	318
Nosology, new Synopsis of, by Dr. Weatherhead, reviewed	383 <i>et seq.</i>
Notices	240, 496
Oaks, great	211
Observations on the Preservation of Sight, by John Harrison Curtis, Esq.	
reviewed	144
on the Present System of Medical Education, reviewed	391 <i>et seq.</i>
on the Ulcerative Process, by Mr. Eccles, reviewed	137 <i>et seq.</i>
Obstetric Exploration, Treatise on, by Dr. Hohl, reviewed	83 <i>et seq.</i>
Obstetrics, the principles and practice of, by Dr. J. Blundell, reviewed	308 <i>et seq.</i>
Organs of the voice in birds	221
Os uteri, case of the obliteration of the, by Mr. William Taylor	189
Oxford medical degrees	234
Paralysis of one side of the face, case of	190
cases of, cured by strychnine	352 <i>et seq.</i>
case of, cured by application of the tourniquet	188
Paraplegia, table of cases of, treated with strychnine	356
Pathological and Surgical Observations on the Diseases of the Joints, by	
B. C. Brodie, v.p. r.s., reviewed	241 <i>et seq.</i>
Paulus Ægineta, translation of, by Mr. Adams, (Vol. I.) reviewed	60 <i>et seq.</i>
his history and æra	62
Paxton's Introduction to the study of Anatomy; Vol. II., reviewed	148
Pelvis, differences between the male and female	309
Perineum, its support during labour, unnecessary	310
derivation of the word	315
Peritonitis, chronic, Mr. Edward Thompson on	357
Pharmacopœia Homœopathica, by Dr. Quin, reviewed	399 <i>et seq.</i>
Philip, Dr. Wilson, on the Influence of Minute Doses of Mercury, reviewed	121 <i>et seq.</i>
Phtegmasia dolens in men, Sir H. Halford on	475
Phthisis, Dr. Ramadge's method of curing	321
Physiology applied to the Preservation of Health, by Dr. Combe, reviewed	388 <i>et seq.</i>
Piscidia erythrina, or the fish-wood	230
Plural births	279
Polypus in the meatus auditorius	21
Post-mortem appearances after an overdose of strychnine	354
Pregnancy, Capuron on the diagnosis of	273
case of supposed	87
Propagation of heat and light below the earth's surface	268
Prout, Dr., his Bridgewater Treatise, reviewed	267 <i>et seq.</i>
Puerperal convulsions	277
Pulmonary consumption, case of, by Dr. William Stroud	171 <i>et seq.</i>
Pulse, its varieties	4
fœtal	84
placental	<i>ib.</i>
Pulse, its variation during labour	86

Quain's Anatomical Plates reviewed	146
Quin's Pharmacopœia Homœopathica, reviewed	399 <i>et seq.</i>
Ramadge Dr., his "Consumption Curable," reviewed	320 <i>et seq.</i>
Reflex function of the medulla spinalis, not discovered by Dr. M. Hall	29
Reid, James esq. on the treatment of bronchocele	425
Relation of the nervous to the vascular system	372
Relaxation and descent of uterus and bladder	287
Rennie's Alphabet of Botany, reviewed	50 <i>et seq.</i>
Magazine of Botany and Gardening, reviewed	394 <i>et seq.</i>
Rheumatism of the elbow-joint	337
Richmond, Mr., his musical performance	483
Richter's Dr. A. L., Dissertations on Points of Practical Medicine and Surgery, reviewed	331 <i>et seq.</i>
Roupell, Dr., Croonian Lectures on Cholera by, reviewed	97 <i>et seq.</i>
Rupture of a varicose tumour in the vagina during labour	455
Ruspini's styptic	40
St. Pancras Association, observations on the	494
Salivation excited by minute doses of mercury	122
Scott, Mr., his method of bandaging	255
Scrofulous disease of the joints	256
Scudamore, Sir C., on Inhalation in Phthisis, reviewed	129 <i>et seq.</i>
Secale cornutum, its use	276
Seeds, Professor Rennie's account of	53
Self-supporting dispensaries	494
Shapter, Dr., his Medica Sacra, reviewed	596
Signs, Disorders, and Management of Pregnancy, by Mr. Douglas Fox, reviewed	401
Sloe, its medical virtues	39
Small-pox mentioned by the Arabian writers	76
Sneezing	456
Soemmering; his account of the relative dimensions of the male and female pelvis	309
Softening of organs, Dr. Carswell on	78
Solon quoted	136
Somnambulism and animal magnetism, Dr. Pritchard on	78
Sounds inaudible by certain ears	220
Spark produced during the freezing of water by æther	217
Spontaneous evolution, case of	286
State medicine in Germany	486
Stays, their absurdity	389
Stethoscope, its construction	81
Stomach, its temperaments, according to Paulus Ægineta	70
affections of the, in new-born infants	117
case of	118
dilated, cases of	201
Stools, their colour	7
resembling mock-turtle soup, produced by calomel	8
darkened by iron, sulphur, and senna	9
Strahl, upon Nightmare, reviewed	315 <i>et seq.</i>
Strangulated hernia, reduction of	231
efficacy of the extract of belladonna in	465
Stroud, Dr., his case of pulmonary consumption	170
Strychnine, its efficacy in paralysis	351
Sudamina, their occurrence in typhus fever	545
Sulphate of magnesia, Dr. Henry on the	282
zinc, the best emetic in congestive fever	11
Surgical anecdote	219
Swan, on Diseases of the Nerves, reviewed	90 <i>et seq.</i>
Swan's Demonstration of the Nerves, Part IV. reviewed	134
Sympathetic nerve, case of disease of the	457
Synovial membrane, case of inflammation of	244
Tannin, pure	490

Taxodium	221
Temperaments of the brain	64
Tendo-Achillis divided for the cure of club-foot	466
Tetanus cured by cupping along the spine	467
Thomson's, Dr. A. T., Elements of Materia Medica (Vol. II.) reviewed, 39 <i>et seq.</i>	
Tourniquet applied in paralysis	188
Trachea of birds	222
Transactions of the Provincial Medical and Surgical Association, Vol. II., reviewed	351 <i>et seq.</i>
Transfusion, Dr. Blundell's directions for	312
Triple quotidian ague, case of	479
Truth, Dr. Blundell's panegyric on	311
Tubercular disease, curability of	131
Turnbull, Dr. A., Treatise on Veratria by, reviewed	55 <i>et seq.</i>
writes not for the profession, but the laity	57
Wm., his Medico-chirurgical Report of the Huddersfield Infirmary	280
Turtle, experiment upon, by Dr. M. Hall	33
Tuson's Anatomy of Hernia, reviewed	145
Twin cases detected by auscultation	88
Typhus fever, Dr. Armstrong's account of the post-mortem appearances in	14
remarkable case of, related by Rush	15
Chomel's Lectures on, reviewed	343 <i>et seq.</i>
symptoms of	344
post-mortem appearances in	346
causes of	347
case of, narrated by Professor Chomel	349
treatment of	350
Tyrrell, Mr. F., on catarrhal and catarrho-rheumatic ophthalmia	416
Ulcerative Process in Joints, Key on the, reviewed	296 <i>et seq.</i>
Ulceration of the cartilages, Mr. Wickham's account of	305
of the cartilage of the hip-joint, Mr. Key on	303
of the cartilages, Mr. Key's account of the	297
of the articular cartilages	251
case of	<i>ib.</i>
of the eyelid, case of	227
Unequal length of the legs, case of	265
Urine, analysis of, in a case of cholera	187
Valentine, Mr., case of strangulated hernia, by	448
Veins: do they absorb?	300
Venereal disease, preventive of the	16
treatment of the, in the Hospital of the 72d Regiment, at the Cape of Good Hope	459
Venesection in cases of rigid os uteri	278
Veratria, Treatise on, by Dr. A. Turnbull, reviewed	55 <i>et seq.</i>
Verdigris, case of neuralgia caused by	93
Vindiciæ Medicæ, or a Defence of the College of Physicians, reviewed	394 <i>et seq.</i>
Vision, Mr. Mayo on	408
Walker, on the Physiology of the Eye, reviewed	150
Watery discharge during pregnancy, case of, by Dr. H. Davies	179
Weatherhead, Dr., New Synopsis of Nosology, reviewed	383 <i>et seq.</i>
Wellesley Dispensary, Dr. Churchill's report of the	281
What can the legislature do for us?	492
Whytt quoted	30
Wickham, on Diseases of the Joints, reviewed	296 <i>et seq.</i>
Willow, the weeping	213

END OF VOL. II.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100



