

Parkes Pamphlet Collection: Volume 34

Publication/Creation

1810-1817

Persistent URL

<https://wellcomecollection.org/works/d4x9kvyb>

License and attribution

You have permission to make copies of this work under a Creative Commons, Attribution, Non-commercial license.

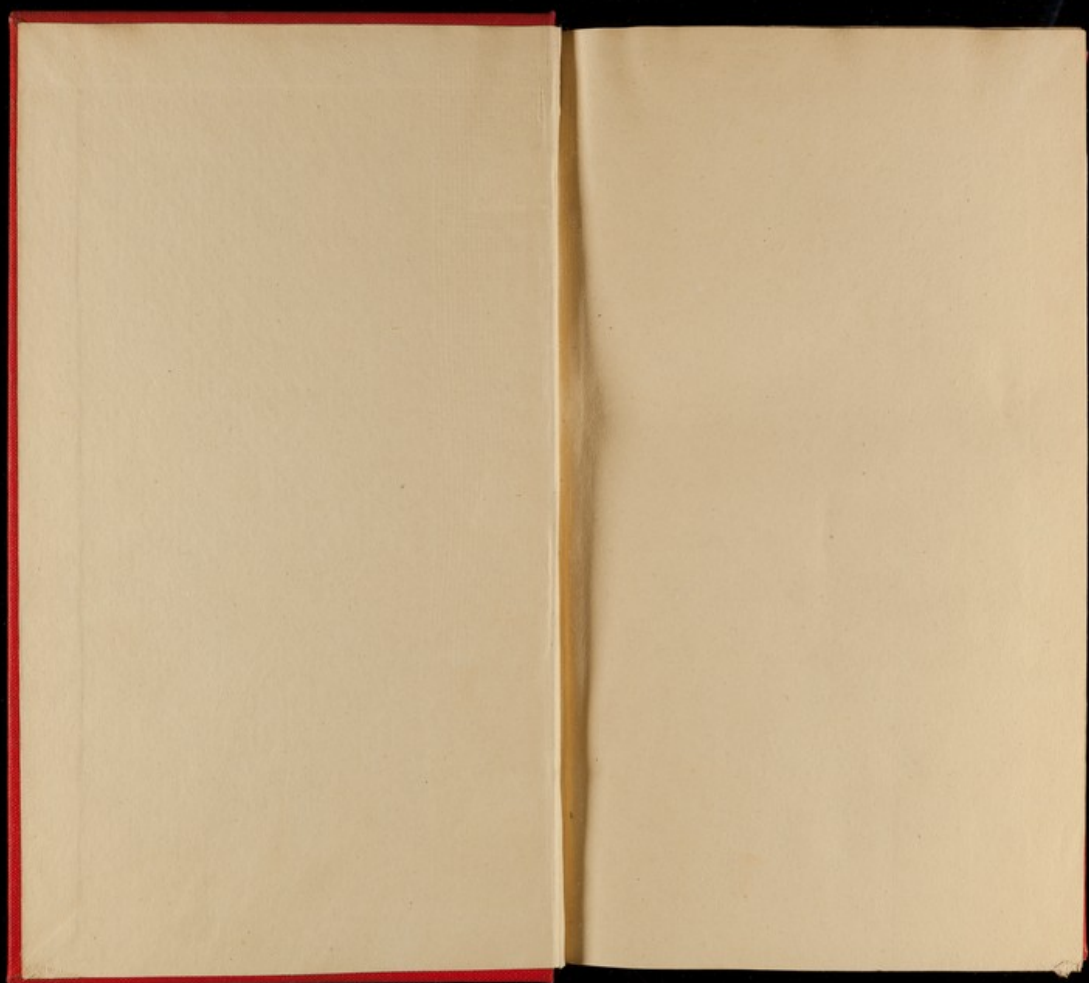
Non-commercial use includes private study, academic research, teaching, and other activities that are not primarily intended for, or directed towards, commercial advantage or private monetary compensation. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

ETS



This volume contains

- Critical Review of the Works of Malton
for 10 years ————— 1817
- Gillette on Malton's Fever ————— 1818
- Dickson on Blood lettings & Angina 1817
- Duncan on Inflammation of the Heart 1817
- Dickson on Yellow Fever ————— 1816
- Francis on Febrile Contagion 1816
- McLugue on the Health of the
884^r ————— 1805
- Haimes on the Celtic Air 1815
- Frazer on the School Law, and
Operation ————— 1813
- Burns on the Asthenia Act 1817
- Do — on Malton's ————— 1817

*Ex libris
Jno. McFay*

1817

From the Author

CRITICAL REVIEW

OF THE

STATE OF MEDICINE

During

THE LAST TEN YEARS.

(From the Edinburgh Medical and Surgical Journal,
Numbers 48, 49, 50.)

EDINBURGH:

PRINTED BY GEORGE RAMSAY AND COMPANY,
FOR ARCHIBALD CONSTABLE AND COMPANY, EDINBURGH,
AND LONGMAN, HURST, REES, ORME, AND BROWN,
LONDON.

1817.

To James M'Gee
with respectful thanks
from
D. Duncan Jones

CRITICAL REVIEW
OF THE
STATE OF MEDICINE
DURING THE LAST TEN YEARS.*

WHEN we review with impartiality the history of medicine during its last period, its progressive advancement is undeniable, notwithstanding the despotic obstacles opposed to the

* For this valuable communication we are indebted to a Hannoverian friend, who had promised to send us an account of the latest German medical literature. When preparing to fulfil his promise, the article, of which this is the commencement, appeared in one of the most esteemed literary journals of Leipzig, and superseded the necessity of proceeding in his undertaking.

It is said to be written by the celebrated Kurt Sprengel, Professor at Halle, and author of the History of Medicine, and of the Critical Review of the State of Medicine during the last ten years of the 19th century, of which this is properly a continuation. As Professor Sprengel does not confine himself to the progress of medicine in Germany, many additions and corrections might be made in regard to the medical literature of other countries, especially our own, with which there was almost no correspondence during the period of his history; but we have preferred leaving the article unaltered, for many reasons, and shall attempt, on a future occasion, to compose such a view of the recent literature of Great Britain, connected with our profession, as may more effectually correct the errors, and supply the defects unavoidably existing in the production of the learned German. In our translation we have only endeavoured to be faithful; and we fear that we have not always succeeded in rendering the meaning intelligible to those unacquainted with the language of some of the philosophical sects prevalent in Germany, whose tenets are here alluded to.

free correspondence between civilized nations, and innumerable errors of the human understanding. The Germans, in particular, have reason to rejoice that the ignominious chains laid upon them by rapacious foreigners, could not hinder the unfettered mind from labouring incessantly to extend the empire of truth; nay, that the very circumstance of external oppression seems only to have had the effect of exciting greater efforts towards mental improvement.

The scientific part of medicine acquired in Germany and France great additions of new materials, which, though treated in very different ways, and even prematurely formed into systems, never lose their value, however preposterously applied in some instances.

But we shall facilitate this review, by tracing the progress of each branch of medicine separately.

I. History and Literature of Medicine.

The frequently repeated complaint of the neglect of the study of the history of medicine seems to be unfounded during this period. For at least in Germany, Italy, and France, its history and literature were more generally studied than in earlier times. *Sprengel's* larger work was translated into French, indifferently by *Geiger*, and better by *Jourdan*; in a masterly manner into Italian by *Arrigoni*, and into English anonymously. *J. C. Nicolas* published an abridgment of *Sprengel's* work,* which the author himself had previously done in 1804. *C. Windischmann's* attempt to give the mystical views of medicine a historical dress, is truly ridiculous.† *K. F. Lutheritz's* view of the older systems,‡ as well as *A. F. Hecker's* similar work,§ have no pretensions to originality.

In France the laudable desire of historical knowledge displayed itself in the most distinguished manner in *Prunelle's*|| excellent view of the influence of medicine on the restoration of the sciences in the middle ages, but in a less degree in *P. J. G. Cabanis's* sketch.¶

* Das Merkwürdigste aus der Geschichte der Medicin. Th. 1. Rudolst. 1808. 8.

† Versuch über den Gang der Bildung in der heilkund. Kunst. Frkf. a. M. 1809. 8.

‡ Die Systeme der Aerzte von Hippokrates bis auf Brown. Th. 1. 2. Dresden, 1810, 1811. 8.

§ Die Heilkunde auf ihren Wegen zur Gewissheit. Dritte Auflage. Erf. 1809. 8.

|| De l'influence exercée par la médecine sur la renaissance des lettres, Montpellier, 1809. 4.

¶ Coup d'oeil sur les révolutions et la réforme de la médecine. Paris, 1804. 8.

Even single points of the history of medicine were more accurately investigated, the history of diseases and of their treatment ascertained, and the fathers of physic re-edited. *Schaufus* promulgated a profound hypothesis on the origin of syphilis among the Hindoos;* and *C. G. Gruner* described the progress of the sweating fever in the 15th and 16th centuries.† *Gruner's* son shewed, as *J. Barker* had done 60 years before him, the coincidence of the medicine of the ancients and of the moderns.‡ A similar title,§ given to another work, is deceitful. *Quercetanus* also formerly wrote *De Priscorum Philosophorum Verae Medicinæ Materia*; and *Tachenius* published a *Hippocrates Chymicus*. And *Ign. Wamrach* again recommended the study of the ancients,|| and published a learned inquiry on the antiquities of Typhus.¶ *W. Falconer* compared the nervous fever with the *Morbus Cardiacus* of the ancients.** *Ant. Jos. Testa* illustrated the latter disease, as also an obscure passage in *Aretæus*.†† *E. Wichelhausen* described and recommended the baths of the ancient Romans.‡‡ *D. P. Assalini* and *J. Eyerel* translated the classical description of the Athenian plague during the Peloponnesian war.§§ *G. F. J. Nöldeke* gave a masterly translation of the beginning of *Galen's* most celebrated work.|||| On the other hand, *A. H. Hinze* was unsuccessful in his attempt to translate the aphorisms of *Hippocrates*.¶¶ The medical passages in *Cicero* were merely collected without illustration by *A. M. Birkholz*.*** An excellent critical edition of *Rufus of Ephesus* was published by *C. F. Matthæi* of Moscow; but *J. F. Pierer* reprinted *Foë's* translation of *Hippocrates* without any commentary.†††

* Neueste Entdeckungen über das Vaterland und die Verbreitung der Pocken u. der Lustseuche. Leipz. 1805. 8.

† Itinerarium sudoris anglici ex actis designatum. Jen. 1805. 8.

‡ Concordia medicinæ veteris et novæ vindicata. Jen. 1806. 8.

§ *J. N. Ringius* de doctrina Hippocratica et Browniana inter se consentiente et se mutuo expleute testamen. Norib. 1812. 8.

|| De priscorum Græciæ ac Latini medicorum studio restaurando. Viennæ, 1808. 4.

¶ Antiquitates typhi contagiosi. Bas. 1812. 4.

** Memoirs of the Med. Soc. of Lond. Vol. VI. p. 1.

†† Delle malattie del cuore, Vol. I.—III. 1811.

‡‡ Ueber die Bäder des Alterthums. Mannh. 1807. 8.

§§ Thucydides von der Pest in Athen. Aus dem Griechischen. Wien, 1810. 8.

|||| Galen vom Nutzen der Theile des menschl. Körpers. Aus dem Griechischen. Oldenburg, 1804.

¶¶ Proben einer Uebersetzung der Aphorismen des Hippokrates. Stendal, 1807. 8.

*** Cicero medicus. Leipz. 1806. 8.

††† Bibliotheca iatræ, Vol. I.—III. Altenb. 1806. 8.

The antiquities of *Materia Medica* were investigated by *Kurt Sprengel* in his history of botany,* and by *J. Stackhouse* in his last edition of *Theophrastus*;† and *S. Hahnemann* published a profound inquiry into the Hellebore of the ancients and its employment.‡

Very recently we were unexpectedly gratified by an inquiry into the history of medicine in Russia.§

Medical bibliography has been enriched with some valuable works. Those of *K. F. Burdach*¶ and *J. S. Ersch*‡ are unquestionably the most complete. But the former has diminished the utility of his work by the want of an index, and the latter confines himself exclusively to the works published in Germany during the last half century. The publications of *J. Mayer*** and *C. P. Ludwig*†† cannot bear a comparison with either of these in any respect. On the contrary, *Ploucquet's* great work in its last form‡‡ has become exceedingly useful. But *K. A. Kortum* has published a very insignificant production.§§

Among the periodical publications, embracing medicine in general, *Hecker's Journal of Discoveries* acquired celebrity, and even consideration, by controverting boldly, but often arrogantly, the opinions of the day. It was continued in this manner until the 20th Number of what was called the *New Journal* in 1809; then some anonymous young men at Leipzig followed *Hecker's* example, and gave, in the "*Newest Journal of Discoveries*," some useful enough views: But the old nervous opposition no longer existed, and it lost its attraction for the public. The *Salzburg Medical Journal* continues to be of great importance, on account of its early notices, and full extracts from medical works. But since *Hartenkeil's* death, (7th January 1808,) its affected style, unfortunately common in the south of Germany, its fondness for new, high sounding, metaphorical expressions, and sometimes its want of knowledge and judgment, are no recommendations. The *Altenburgh "Annals of Medicine,"* published by

* *Historia rei herbarie*, Vol. I. II. Amsterd. 1807, 1808. 8.

† *Theophrasti Eresii de historia plantarum*, libr. 10. Oxon. 1814.

‡ *De helleborismo veterum*. Leipz. 1812.

§ *Wihl. Mich. Richter's Geschichte der Medicin in Russland*. Th. 1, Mosc. 1819. 8.

¶ *Die Literatur der Heilwissenschaft*, B. 1, 2. Gotha, 1810, 1811. 8.

‡ *Literatur der Medicin*. Amst. 1812. 8.

** *Repertorium der gesamten Medicin. Literatur*. B. 1, 2. Berl. 1809. 8.

†† *Einleitung in die Bücherkunde der praktischen Medicin*. Leipz. 1806. 8.

‡‡ *Literatura medica digesta*. Vol. I.—IV. Tubing. 1808. 4.

§§ *Skizze einer Zeit-und-Literär-Geschichte der Arzneykunst*. Unna. 1809. 8.

Pierer, might almost be dispensed with, as they seldom contain any thing not to be found in other works. *Hecker* published before his death (1811) three volumes of the "*General Annals of Medicine*," which were intended as a substitute for the *Journal of Discoveries*; but alas, "*Nihil est, quod senio non exolescat*," *Petrarch*.—*C. W. Hufeland's Journal*, even up to the last or 39th volume, continues to be universally acknowledged as valuable, not only to the practical physician, but in every department of medicine. The same praise may be given to *Reil's* and *Autenrieth's* archives of physiology, (ten volumes,) and *Horn's* archives of practical medicine. *Harle's* very useful *Journal of Foreign Medical Literature*, which was afterwards published under the title of *Annals of English Medicine and Surgery*, was succeeded by his *Annals of German Medicine and Surgery*, with an addition of the newest and best foreign literature. The *Medical Annals of the Austrian States* (Vol. I. and II. Vienna, 1813, 1814) have begun excellently. *F. W. J. Schelling's Annals of Medicine* as a science, of which *A. F. Marcus* published the third volume alone, at first contained many valuable papers, but the last editor, on account of his incredible partiality and prejudices, could not give general interest to it, any more than to his *Ephemerides of the healing art*. *K. Wolfart*, the publisher of *Asklepeion*, rivals *Marcus* in partiality, and surpasses him in want of solid knowledge.

Among the French periodical publications, and general literary works upon medical subjects, the *Dictionnaire des Sciences Medicales*, published by a society of the most esteemed physicians, maintains the first rank. The others are chiefly practical Journals; the two best are those published by *Corvisart** and by *Sedillot*†. The Society of Emulation at Paris also published periodically;‡ likewise the Medical Society at Montpellier.§ For foreign literature, the French had during this period three journals in the *Bibliothèque Medicale*; in *Kluyken's* of Ghent's *Annales de littérature medicale étrangère*; and in *Gallot's Nouvelle bibliothèque Germanique de médecine*.

In Great Britain, the excellent old *London Medical Journal*, *Duncan's Annals of Medicine*, and the *Edinburgh Medical and Surgical Journal*, were continued. *Bradley's Physical and Medical Journal* also contains a rich store of observations, as well

* *Journal de Médecine et Chirurgie*.

† *Journal Général de la Société de Médecine à Paris, ou Recueil périodique*, etc.

‡ *Mémoires de la Société Médicale d'Emulation*.

§ *Annales de la Société de Médecine pratique à Montpellier*.

as the Transactions of a society for the improvement of medical and chirurgical knowledge; and since the beginning of the year 1813, the London Medical, Surgical, and Pharmaceutical Repository, by *Burrows, Royston, Thomson, and Kerrison*.

In North America, *Smith Barton* published an important periodical work. * Equally valuable is that edited by *Millar and Mitchell*; † but a third, by *Redman Coxe*, ‡ is insignificant.

Among the Italian medical periodical publications, the best are those of *Tommasini* § and *Brera*; ¶ the *Efemeridi chimico-mediche* of Milan, the *Memorie della società medica di emulazione* of Genoa, the *Memorie della società medica* of Bologna; and lastly, though in a less degree, the *Giornale medico-chirurgico* of *Flajanti*, are also valuable for the observations they contain.

In Holland, *Stipriaan Luiscius, Ontyd*, and *Macquelyne*, published the *Geneeskondig Magazin*. From the north of Europe the only work of this kind we have seen is *Gadolin's ärs berättelse om Svenska läkare sällskapets arbeten*. Stockh. 1810.

II. Anatomy and Physiology.

Many obscure circumstances, in regard to the structure and functions of the human body, were most advantageously explained by the light which *Bichat* had formerly thrown upon these sciences. His principles had the most direct influence upon the method of treating them, and hence all the elementary books of this period have an advantage over preceding works, with the exception only of *Sömmerring's Manual*. *F. K. Hesselbach* published a very useful guide to the art of dissection. ¶

A short and judicious view of all parts of anatomy, of syndes-mology, connected with osteology, was published by *K. L. M. Langenbeck*. ** *Jor. Oecky*, †† and *J. C. Loder*, ‡‡ had precisely the same object in view, but we know nothing of the prosecution of their undertakings. *J. C. Rosenmüller's Manual of Anatomy*, 8vo, Leipzig, 1808, is one of the most concise and use-

* The Philadelphia Medical and Physical Journal.

† The Medical Repository.

‡ The Philadelphia Medical Museum.

§ Giornale della Società Medico-chirurgica di Parma.

¶ Giornale di Medicina Pratica.

¶ Vollständige Anleitung zur Zergliederungskunde des menschlichen Körpers. Arnstadt, 1805—1810. 4. Th. 1, 2.

** Anatom. Handbuch. Göt. 1806. 8.

†† Bau des Menschenkörpers. Th. 1. Prag, 1805. 8.

‡‡ Grundriss der Anatomie des menschlichen Körpers. Jena, 1806.

ful. The most extensive work, but not the best adapted to its purpose, of this kind in Germany, was published by *Jor. Schallgraber*; * *J. G. Ilg's Manual* † deserves little commendation; but *Blumenbach's Osteology* ‡ is admirably executed, and full of interesting remarks.

In France, *J. P. Maygrier* produced a useful manual, § and an excellent one was published in Italy by *Ant. Catelacci*. ¶ A masterpiece, as a Manual of Anatomy, appeared in Scotland from *Alexander Monro tertius*, ¶ of which the third volume is chiefly occupied with engravings of objects of pathological anatomy.

The very celebrated delineations of the parts of the human body, which were published by *S. Th. Sömmerring* and *J. C. Rosenmüller*, redound especially to the praise of our native country. Incomparable accuracy of dissection, justness of representation, and fineness of engraving, distinguish *Sömmerring's* plates of the organs of the senses; ** *Rosenmüller's* have the recommendation of practical utility, as they display the natural situation of parts according to various sections. ††

Of foreign works of this kind, we only know *Saunders's* masterly views of the human ear. ‡‡

Comparative anatomy, which is universally acknowledged to be of the greatest assistance to the right understanding of the structure and nature of the human body, has been cultivated with distinguished success in Germany, France, and England. As the principal works of this kind, we can have no hesitation in citing *Cuvier's* lectures, especially as edited by *Froriep* and *Meckel tertius*, in four volumes, 8vo, at Leipzig, 1808, 1810; and Sir *Ev. Home's* last work. §§ *Tiedemann's Zoology* ¶¶ also deserves particular praise, on account of the excellent anatomy of animals, especially birds, and the applications to human anatomy and

* Grundbegriffe vom Körperbau des Menschen. Th. 1—5. Wien, 1808.

† Grundlinien der Zergliederungskunde des Menschenkörpers. Th. 1, 2. Prag, 1811, 1812. 8.

‡ Geschichte und Beschreibung der Knochen des menschlichen Körpers Zweite Auflage. Göt. 1807. 8.

§ Manuel de l'anatomie. Paris, 1807.

¶ Fondamenti anatomici. Pisa, 1805. 8.

¶ Outlines of the Anatomy of the Human Body, Vol. I.—III. Edinb. 1813.

** Abbildungen der menschlichen Hörorgane. Frkf. 1806. fol. Abbildungen der menschlichen Geschmacks- und Sprachorgane. Frkf. 1808. fol. Abbildungen der menschl. Organe des Geruchs. Frkf. 1809. fol.

†† Chirurgisch-anatomische Abhandlungen für Aerzte und Wundärzte. B. 1—3. Weimar, 1805—1812. fol.

‡‡ Anatomy of the Human Ear, with engravings. Lond. 1806. fol.

§§ Lectures on Comparative Anatomy, Vol. I. II. Lond. 1813. 4.

¶¶ *F. Tiedemann's Zoologie*, B. 1—5. Heildb. 1808—1814.

physiology. An industrious compilation of *J. W. Linck** and *Blumenbach's* Manual† appeared earlier. Single contributions to comparative anatomy were furnished by *J. W. Neergaard*,‡ *J. F. Meckel*,§ in particular dissertations; || also in *Oken's* and *Kieser's* contributions, ¶ in *J. C. Häfner's* view of the structure of the nerves in various classes of animals, ** in *Vinc. Malacarne's* representation of the brain of birds, †† and by *C. H. T. Schreger* ‡‡ and *F. Tiedemann*.§§

The chemical investigation and analysis of the parts of the body, is a second and very important means of advancing and perfecting physiology, but it was formerly misapplied as furnishing the principles of the science. At present, chemistry is generally considered, in its proper point of view, as the hand-maid, and not as the mistress, of physics. *G. F. C. Kapp*, indeed, has endeavoured to defend the views of the earlier materialists, who look upon life as the result of a determinate composition and form. || And *J. F. Ackermann* continues to explain life as a process of slow combustion, by the attraction of oxygen, and its conversion into the state of a half gas. ¶¶ Also, *G. C. Reich* still maintains, that the laws of dead nature are applicable to the living body; and that all the phenomena of the latter may be explained by chemistry.*** To the abuse of chemistry we

* Versuch einer Geschichte und Physiologie der Thiere. Chemnitz, 1805. Th. 1, 2, 8.

† *J. F. Blumenbach's* Handb. der vergleichenden Anatomie. Gutt. 1805.

‡ Beiträge zur vergleichenden Anatomie. Gutt. 1807. 8.

§ Abhandlung aus der menschl. und vergl. Anatomie. Halle, 1806. 8.

|| Beiträge zur vergl. Anatomie. Th. 1, 2. Leipzig, 1808, 1809.

¶ *A. Araki* de plicibus cerebri et medulla spinali. Hal. 1815. *J. F. J.*

Katz de pteropodum structura et novo ipsius genere. Hal. 1815. *S. F. Lue*

de pleurobranchia, novo molluscorum genere. Hal. 1815. *H. F. Schalek* de

ascidiarum structura. Hal. 1814. *B. J. Feiden* de halysidum structura.

Hal. 1815.

¶ *L. Oken* und *D. G. Kieser's* Beiträge zur vergleichenden Zoologie, Anatomie u. Physiologie. H. 1, 2. Bamh. 1806, 1807. 8.

** Diss. de systematis nervosi formatione per varias animalium classes. Erl.

1807. 8.

†† Memorie della soc. Ital. delle scienze, Vol. XI.

‡‡ Versuch einer vergleichenden Anatomie des Auges und der Thränen-Or-

gane. Leipzig, 1810. 8.

§§ Anatomie des Fischherzens. Landsh. 1809. 4.

¶¶ Systematische Darstellung der durch die neuere Chemie in der Heilkunde

bewirkten Veränderungen und Verbesserungen. Hof, 1805. 8.

*** Versuch einer physischen Darstellung der Lebenskräfte organisierter Kör-

per. Nachträge und Zusätze zu beyden Bänden der ersten Ausgabe. Jena,

1805. 8.

**** Neue Aufschlüsse über die Natur und Heilung des Scharlachfiebers.

Halle, 1810. 8.

may also ascribe the pretended formation of blood, by exposing a mixture of albumen, phosphate of iron, carbonate of ammonia, and muriate of soda, to the positive pole of a voltaic pile.* But *N. W. Fischer* (Hufel. Journ. B. 33. § 6.) soon shewed, that the purple fluid obtained was essentially different from blood, for the acid of the muriate of soda attacked the gold of the wire, and formed a kind of purple oxide of gold, which, in a few seconds, gilds copper wire exposed to it. This refutation is conclusive, although it is at once evident, that *Grindel's* artificial blood was prepared of principles which do not exist in real blood.

The constituents of human blood were subjected to a new analysis by *J. Berzelius* (Afhandlingar i Fysik, D. 1.), who shewed, that it contained alkali, and not phosphated iron. Nay, very lately, *W. T. Brande*† has considered the colour of the blood to be totally independent of iron, as there is as much iron in the colourless, as in the coloured part of that fluid, and there is much less iron in the blood than was formerly supposed. But neither the actual quantity found, nor the kind of blood employed in these researches, is stated. *L. Schnaubert*‡ and *J. Botock*§ almost at the same time stated, that the blood contained no gelatine; the former adopted in its place albumen, kept fluid by the soda, and the latter mucus. *Berzelius* confirmed the absence of gelatine, and considered the colouring matter as a variety of albumen. The influence of electricity on the blood was accurately observed by *Schäbler*||. Positive electricity prevents its coagulation, and promotes its evaporation and decomposition.

The secreted fluids have been again analyzed by *J. Berzelius*¶ and *J. Botock*** The former, particularly, gave the composition of the marrow and of the sebaceous acid (*Gehlen's* Journ. B. 2. p. 275—287.), as well as the constituents of the bones (B. 3. § 1.). Upon the analysis of these, we have, in Germany, a particular work.†† There also appeared from *Fourcroy* and

* *D. H. Grindel* in Hufeland's Journal. B. 32. St. 1.

† Philos. Transac. for 1812. Vol. I. and in Edinb. Review, Oct. 1815.

N. XLIII. p. 178.

‡ Trommsdorff's Journal der Pharmacie, B. 12. St. 2.

§ Medic. Chirurg. Abh. der Gesellsch. in London, Berl. 1811. 8.

|| Diss. de influxu electricitatis in sanguinem. Lub. 1810. Schweigger's

Journal. B. 3. S. 292.

¶ Afhandl. i Fysik, D. 1. General view of the composition of animal fluids,

from Medico-chirurgical Transact. Vol. III. Ueberblick über die Zusam-

mensetzung thierischer Flüssigkeiten, übers. von Schweigger. Nürnberg. 1814. 8.

** Nicholson's Journ. Vol. II. p. 244. Vol. III. p. 140.

†† *C. T. Schreger* osteochemiae specimen. Lips. 1811. 4.

Fauvelin an examination of cow's milk, and of the colouring constituent of bile and urine, the latter of which also, as extracted from flesh by nitric acid, was represented as a peculiar acid.* *Thenard* examined the sweat and the acids of milk and urine; † and *J. P. John* several animal matters, and, besides others, the brain, to shew that it contained no phosphorus. ‡

Microscopical observations, which have been almost neglected since *Malpighi's* time, were renewed. *Ant. Barber* described more exactly the form of the medullary matter of the brain and nerves. It consists of very fine globules, arranged in fibres, with larger globules interposed. § The fibrous structure of the spinal marrow was confirmed by *Villars* and *G. G. T. Keuffel*. || The brothers *Wenzel* also taught, that the brain consisted of globules, and that these are larger in man than in the mammalia. ¶ The cellular structure was also apparent almost everywhere after the brain was dried (p. 36, 37). It was farther proved, that the grey substance in the corpora striata and thalami nerv. opt. was not connected with the cortical substance (p. 68, 69). In the choroid plexus, where it runs behind the thalami, they observed a knotty substance, which consists of small, probably lymphatic grains (p. 94, 95). *F. v. P. Grunthausen* made some interesting observations on the globules of the chyle, and of pus, which led to the distinction of the latter from mucus. **

The theory of galvanism, formerly applied to physiology, opened entirely new views regarding it. Gradually, it became more evident, that the different oxidability of the layers, of which the solids of the living body consist, develops an imponderable matter, which, conducted through the nerves, is consumed in the secretory organs, and by the functions of the muscles. The undeniable galvanic process in the body of the torpedo and electric eel, †† the remarkable co-operation, though without connection, of the subsidiary nerves, with the principal nerves in the organs of the two principal senses, †† the evident

* Mém. de l'Institut. Nation. Vol. VI. *Gehlen's Journ.* B. 2. S. 243, 615.

† *Annal. de Chimie*, Tom. LIX. p. 262. *Gehlen*, B. 2. S. 399.

‡ *Schweigger's neues Journal*, B. 4. S. 165.

§ *Osservazioni microscopiche sul cervello*. Napoli. 1807. 8. *Reil's Archiv.* B. 10. S. 459.

|| *Diss. de medulla spinali*. Hal. 1810.

¶ *De penitiori structura cerebri*, p. 29. *Tubing.* 1812. fol.

** *Neue Untersuchungen über den Unterschied zwischen Eiter und Schleim*. München, 1809. 8. *Salzb. med. Zeit.* 1813. B. 2. S. 73.

†† *Folta und Confgliachi* in *annali di chimia*, Vol. XXII. p. 223. *Humboldt* in *Gilb. Ann.* B. 22. S. 1. f.

‡‡ *Brandis Pathol.* S. 260. *Sprengel Instit. Med.* II. 317.

occurrence of a different cortical matter in most of the secretory organs, but especially the observation of *Wollaston*, confirmed by *Guyton Morveau*, that the constituents of a solution of muriate of soda, exposed to the action of the negative pole of the voltaic pile, pass through a sow's bladder (*Schweigger's Journ.* B. 2. § 1.); also the production of oxygen in the blood, although the oxygen of the atmosphere cannot penetrate into the blood-vessels of the lungs, through the entire parietes of the air-cells.* Lastly, the impregnation of the hermaphrodite molluscae, whose organs of generation only lie upon each other, without material communication.† All these, and many other phenomena, which were before explained by animal electricity, seem more and more to put it out of doubt, that most, if not all the functions of life, are to be considered as galvanic processes; in regard to which, the observations of *Leop. Reinhold* (*Reil's Archiv.* B. 8. § 305.), and in part those of *Thom. Buntzen*, ‡ and several other physiologists to be afterwards named, deserve to be read.

By this assumption of the imponderable substances, as the real agents of nature in organic bodies, by the correction of the ideas of life and organization, by the more elevated point from which it teaches us to consider antagonism (*Gegensätze*) in nature, and thereby put an end to the old controversy between materialists and idealists, the new German philosophy of nature (*Naturphilosophie*) conferred permanent benefit even upon the theory of medicine. The excrescences of this new doctrine, the mystic obscurity with which some of its adherents spoke of God and the invisible world, the extravagant, and therefore absurd, desire of instituting comparisons between things perfectly dissimilar, and, besides others, of having a constant reference to the dimensions of the geometrician; hence the introduction of astronomy into physiology; the absurdity of reading clearly and distinctly in the stars, what is here concealed in the obscurity of earthly substance, and especially the barbarous language, full of foreign, unintelligible expressions; were not at all calculated to acquire to the new doctrine many converts among sober and intelligent men. But whoever is able to separate the heavy corn from the chaff, will find in this system many important truths, and new views of subjects which are otherwise inexplicable.

* *Allen und Pepps* in *Schweigger's Journ.* B. 1. S. 182.

† *Mackel's Beyträge zur vergl. Anat.* Heft 1. S. 53.

‡ *Beytr. zu einer künftigen Physiologie*. Kopenhagen, 1805. 8.

In speaking of this new philosophy, we may cite *F. W. J. Schelling's* various essays in the Medical Journals, and *K. F. Schelling's* treatise upon life, * as the original publications. *K. Oken* ranks immediately next to these authors in genius, acuteness, and wit. If we overlook his offensive desire of saying striking things, none of the new philosophers surpass him in richness of conception, in happy combinations, and even in propriety of language. We need only refer to two of his works. † The physiology of *J. Göres* ‡ is merely a poetical fiction, such as those of the fathers of the Greek philosophy, Heraclitus and Empedocles. Many additions to the new philosophy, many peculiar views, but very arbitrary, and advanced with great pretensions, are to be found in some of *J. P. B. Traxler's* writings. § The rhapsody of others ¶ approaches to nonsense. As *Oken* recommended universal experience, so *J. J. Wagner* recommended the empirical method, as the only way in which medicine could be improved, ¶ and opposed, though more in appearance than in reality, Schelling's method, for everywhere the spirit of this philosophy is predominant. Equally insincere, more personal than real, was the opposition of *F. v. P. Gruithuisen*. ** *G. H. Schubert's* writings †† are important, and distinguished by the number of observations, and their happy application, but without subjecting the facts to severe criticism. *W. A. Stütz* exposed the principal doctrines of the new school in a respectable manner, and tolerably free from its errors, and published contributions towards a future physiology of the organization of this world. †† *J. B. Wilbrand* §§ collected a great store of facts from the whole organic creation, with rather too limited a view, as having only a reference to involution and evolution. Not free from partiality, in considering secretion as an inherent activity of what is organized, and action generally as motion, an

* Abhandlung über das Leben. Landshut, 1806. 8.

† Abriss des Systems der Biologie. Gött. 1805. 8. Lehrbuch der Naturphilosophie. Th. 1—3. Jena, 1809—1811. 8.

‡ Exposition der Physiologie. Coblenz, 1805. 8.

§ Grundriss der Theorie der Medizin. Wien, 1805. 8.

¶ Blicke in das Wesen des Menschen. Aarau, 1812. 8.

¶ Von der Philosophie und der Medizin. Bamberg, 1805. 8.

** Organozoologie. München, 1811. 8. Anthropologie. München, 1810. 8. und seine Empfehlung der Aristotelischen Methode in der Medizin, in Salzburger Zeit. 1812. B. 2. S. 113. f.

†† Abhandlungen einer allgemeinen Geschichte des Lebens. B. 1, 2. Leipzig, 1806, 1807. 8. Ansichten von der Nachtseite der Naturwissenschaft. Dresden, 1808. 8.

‡‡ Schriften, physiologischen und medicinischen Inhalts. Berl. 1805. 8.

§§ Darstellung der gesamten Organisation. B. 1, 2. Gießen, 1809, 1810. 8.

anonymous writer produced rather a psychical than a physical system. * *Sigm. Wolf* applied the inherent dualism of nature to every phenomenon of organic life. † Also *K. F. Nicolai*, ‡ *F. H. v. Stransky v. Stranka v. Graffenfels*, § and *W. Knoblauch*. ¶ Several acute views are peculiar to the last of these; for example, that every body, when it begins to act, exercises functions the opposite of those inherent and predominant in it; for external agents limit especially the predominant factor of the inherent power, hence the other factors can act more easily. Thus, heavy bodies act at first by expansion.—The applications of this principle to all parts of science are valuable.

As less able, rather prejudiced adherents than champions, among the enthusiasts for the new doctrines, may be enumerated *G. E. Vend*, ¶ *F. J. Scheerer*, ** *C. F. Kilian*, †† *Joh. Spindler*, ‡‡ *A. M. Wallenberg*, §§ *Joh. Löw*, ¶¶ *F. P. Cassel*, ¶¶ *H. Göden*, *** *K. Enders*, ††† *M. Gaitner*, ††† *W. Butte*, §§§ and besides others, not worthy of notice, even *A. F. Marcus*, in several publications to be hereafter noticed. Whoever has a relish for a ring of changes about dimensions and powers, for comparison between the universe and the microcosm, for the mystical doctrine of signs, and for a high sounding unintelligible jargon, will find ample gratification in the works referred to.

These objectionable excrescences and absurd errors excited the opposition of several thinking men, who, partly like *H. F. Link*, endeavoured to shake the foundations of the new philosophy, but afterwards could not refuse to its leading tenets their

* Versuch über die organische Natur. Wien, 1806. 8.

† Die Natur einwirkender Potenzen. Mannh. 1806. 8.

‡ Diss. de naturae externae in corpus humanum actione. Vitteb. 1805. 4.

§ Beleuchtungen physiologischer und psychologischer Gegenstände. Th. 1. Bamberg, 1805. 8.

¶ Diss. phenomenorum corporis aegroti expositio. Lips. 1810. 4.

¶¶ Diss. de processu organico. Vitteb. 1807. 8. Ueber das natürliche und göttliche Princip des Organismus. Würzb. 1809. 8. Die elliptische Blutbahn. Würzb. 1809. 8.

** Philosophie der Medizin. Frkf. am M. 1809. 8. Journal der Naturwissenschaft und Medizin. St. 1, 2. Das. 1810. 8.

†† Medizin Studien. Gießen, 1809. 8.

‡‡ Allgem. Nosologie und Therapie als Wissenschaft. Frkf. a. M. 1810. 8.

§§ De rhythmis in morbis epiphania. Heidelb. 1809. 8.

¶¶ Über die sympathetische Wirkung der Dinge. Landsh. 1809. 8.

¶¶ Skizzen für Zoonomie. Köln, 1808. 8.

*** Ein Fragment zum System der Krankheiten des Menschen. Berlin, 1808. 8.

††† Beytr. zur Physiologie und Pathologie. Ulm, 1812. 8.

‡‡‡ Physiologie des Menschen. Jena, 1811. 8.

§§§ Grundlinien der Arithmetik des menschlichen Lebens. Landsh. 1811. 8.

assent.* The abuses of the new doctrine were admirably criticised by P. K. Hartmann,† and W. Liebsch,‡ and J. A. Schaffroth.§ But A. F. Hecker|| and an anonymous critic¶ rejected, along with the bad, what was obviously good and valuable in the new doctrines.

The theory of excitement, which had previously prevailed in the schools of the German physicians, now had very few supporters; among whom, however, we may reckon C. F. Oberreich,** and, in some measure also, F. G. Wezel.†† In the beginning of this period, Andr. Röschiawb, the leader of the school of excitement in Germany, abjured his earlier errors, and gave himself up to visionary speculation.‡‡ F. W. v. Hoven§§ preached up empiricism, to which the transition from being an adherent of the doctrine of excitability, was very easy. A complete refutation of Brown's doctrines was published in Italy by F. Canaveri.||||

It thus happened, that by far the greatest number of the physiological systems of this period were indebted partly, or altogether, to the new philosophy for their organic connection; their higher principles and better views. Except G. R. Treviranus's *Biologie*,¶¶ which is written with true Aristotelian knowledge and judgment, Ign. Döllinger's text-book of physiology*** deserves the precedence among those which Germany has produced during this period. The distinction between sensorial and vegetative life, chiefly derived from Johnstone's and Bichat's opinions concerning the nature of the nerves,

* Ueber Naturphilosophie, von H. F. Link. Rost. 1806. 8. Natur und Philosophie. Linz, 1811. 8. Ideen zu einer philos. Naturkunde. Breslau, 1814. 8.

† Salz, Med. Zeit. 1805. B. 2. S. 10.

‡ Babel in der neuen Heilkunde, H. 1. Göt. 1805. 8.

§ Betrachtungen über den Nachtheil vorzeitiger Anwendungen der neuesten Naturphilosophie auf die Medicin. Freyb. 1809. 8.

|| In den Annalen der gesamten Medicin, B. 1—5.

¶ Untersuchung der Frage: Was hat wohl die Naturphilosophie bis jetzt der Medicin genützt. Leipz. 1811. 4.

** Kritisches Journal der Arzneikunst zum Behuf der Erregungstheorie, St. 1, 2. Riga, 1805, 1806. 8.

†† Briefe über Brown's System der Heilkunde. Leipz. 1806. 8.

‡‡ Magazin zur Vervollkommen der Medizin. B. 9. Hufeland's Journ. B. 32. St. 1.

§§ Grundsätze der Heilkunde. Rothenburg ob der Tauber, 1807. 8.

|||| Analyse et réfutation des éléments de médecine du Dr Brown. Turin, 1803. 8.

¶¶ B. 3, 4. Göt. 1803, 1814.

*** Grundriss der Naturlehre des menschlichen Organismus. Bamberg, 1805. 8.

and followed up by Reil,* was adopted as the basis of a fitter arrangement of the principal functions, and for many other useful purposes. The productions of George Prochaska,† P. F. Walther,‡ K. Sprengel,§ K. F. Burdach,|| Ernst Bartel,¶ also obtained the approbation of the learned. The attempts of F. L. Augustin,** Matth. Petrovich,†† Jos. Schallgraber,‡‡ M. J. Lenhartz,§§ were much less successful. Among the Anthropologies published in Germany, the most esteemed are those of W. Liebsch,||| C. F. L. Wildberg,¶¶ H. B. Weber,*** and K. F. Diruf.††† The essays of J. C. A. Heinroth,††† G. H. Masius,§§§ and G. W. Voigt,|||| are less valued.

Among the physiological writers of France during this period, K. L. Dumas, P. J. Barthez, and A. Richerand, are the most important. The first,¶¶¶ by distinguishing the physical, organic, and vital powers, and by adopting Bichat's ideas of the differences of the various systems, introduced better principles, and explained the nature of the secretions better than had been done before him. But Dumas was indebted for his arrangement, and his idea of a power of fixed position, to that excellent master of his art, Barthez, of whose work**** a new edition was published. A peculiar combination of chemical with dynamic principles, resting upon very multifarious hidden powers, occurs in Richerand's fourth edition.††††

* Archiv, B. 7. S. 189.

† Institutiones physiologiae humanae. Vol. I. II. Vienn. 1803, 1806.

‡ Physiologie des Menschen. B. 1, 2. Landshut, 1807, 1808. 8.

§ Institutiones Physiologicae. Vol. I. II. Amst. 1809, 1810. 8.

|| Die Physiologie. Leipz. 1810. 8.

¶ Physiologie der menschl. Lebensfähigkeit. Freyb. 1809. 8.

** Lehrbuch der Physiologie des Menschen. Th. I. Berl. 1809. 8.

†† Physiologia. Pesth. 1807.

†† Entwurf einer Physiologie des Menschen. Grätz, 1811. 8.

‡‡ Introd. in methodologiam physiologiae c. h. Pesth. 1808.

§§ Grundriss der Anthropologie. Th. 1, 2. Göt. 1806, 1808. 8.

|||| Handb. d. physischen Selbstkenntnis für Jünglinge gebildeter Stände. Göt. 1807. 8.

¶¶ Anthropol. Versuche zur Beförderung einer gründlichen und umfassenden Menschenkunde. Heidelb. 1810. 8.

¶¶ Grundlinien der allgemeinen Naturlehre des Menschen. Erlang. 1810. 8.

¶¶ Grundzüge der Naturlehre des menschlichen Organismus. Leipz. 1807. 8.

§§ Grundriss anthropolog. Vorlesungen für Aerzte und Nichtärzte. Altona, 1812. 8.

|||| Versuch einer physiolog. physischen Darstellung des Menschen. Nurnb. 1813. 8.

¶¶ Principes de Physiologie. Tom. I.—IV. ed. 2. Paris, 1806, 1807. 8.

*** Nouveaux éléments de la science de l'homme. Tom. I. II. Paris, 1806.

††† Nouveaux éléments de physiologie. Tom. I. II. Paris, 1807. 8.

The Italians can boast of having produced three of the principal physiological works of this period by *Jac. Tommasini*,* one of the most acute and best informed authors, by *Jos. Jacopi*,† and by *Stef. Gallini*.‡

We have become acquainted with two British publications belonging to this department; one popular, § the other idealistic. ||

Of the particular subjects of physiology, the structure of the brain and nerves, and the functions of both, engaged the attention of the principal German naturalists. The old method of examining the brain by horizontal and perpendicular sections, was rejected on the one side by *F. J. Gall*;¶ and, on the other, by *J. C. Reil*.** The former substituted for the common method what he called the unfolding of the brain, and also shewed, most accurately, the origin of the primitive nerves in the corpora quadrigemina, the spinal marrow and the ganglia, and attributed to the cortical substance a peculiar importance in the nourishment of the nerves. *J. C. Reil* introduced his inquiries with some unworthy reflections against his predecessors, and with a degree of pretension which did not at all correspond with the excessive minuteness and useless naming of every convolution or fold. In other respects, he considered the brain as a galvanic apparatus, because the cortical and medullary substances do not pass into each other, but are easily separated. These innovations were opposed by *S. Th. Sommering*, who defended the old mode of dissection.†† The work of the brothers *Wenzel* upon the brain‡‡ is excellent and masterly, particularly in regard to the comparisons with the animal structure, and the history of the development of the brain. The glands, as they are called, of *Pachioni*, are considered as a morbid state, and their seat is determined to be in the pia

* *Lezioni critiche di fisiologia e patologia*. Vol. I.—IV. Parma, 1805. 8.

† *Elementi di fisiologia e anatomia comparativa*. Vol. I.—III. Milano, 1808, 9. 8.

‡ *Nuovi elementi della fisica del corpo umano*. Vol. I. II. Pad. 1808. 8.

§ *J. Farrold*, *Anthropologia, or Dissertations on Man*. London, 1808. 4.

|| *J. R. Park*, *Inquiry into the Laws of Animal Life*. Cambridge, 1812. 8.

¶ *Untersuchungen über die Anatomie des Nervensystems überhaupt und des Gehirns insbesondere*. Paris, 1809. 8. *Anatomie und Physiologie des Nervensystems im Allgemeinen, und des Gehirns insbesondere*. Paris, 1810, wozu ein Atlas mit 17 Kupferplatten. Fol.

** *Archiv*, B. 8—10.

†† *Academicæ annotationes de cerebri administrationibus anatomicis*. Monach. 1810.

‡‡ *Jos. et Car. Wenzel de penitiora structura cerebri hominis et brutorum*. Tubing. 1812. fol.

mater. There are also excellent observations upon the decussations of the optic nerves, the structure of the pineal gland, and its office to secrete a mass, which is probably fluid during life, and concretes after death into sabulous or calculous grains, which never occur in animals; upon the medullary striae and grey bands belonging to the acoustic nerve, in the fifth ventricle; upon the real purpose of the pituitary glands for secretion; upon their connection with the pineal gland, and their decrease in advanced life; as well as upon the different size and weight of the brain, at various ages, and in different animals. Works upon the brain were also published by *K. F. Burdach*,* *C. G. Carus*,† and *J. Döllinger*.‡

The pointing out of particular regions of the brain, especially of its external convolutions, as the seat of the various faculties, talents, inclinations, even of virtues and vices, the presence of which would necessarily be indicated by the peculiar form of the bones of the cranium,—this quite unphilosophical idea, which got the name of *Gall's Craniology*, or *Cranioscopy*, occupied, at the beginning of this period, many capable and incapable pens in Germany and France. *J. G. Walter's* paper against *Gall* § was disgraceful. *C. H. E. Bischoff's* treatise || was insignificant, or at least did not contain any particular criticism. Stronger objections were made by *A. E. Kessler*,¶ and particularly by *J. F. Ackermann*.** *J. W. F. Himly*, on the contrary, attempted in vain to make this doctrine coincide with reason and philosophy; †† while *E. Bartels* ‡‡ and an anonymous writer§§ supported it. In France, *J. L. Moreau de la Sarthe* made some good

* *Beyträge zur nähern Kenntniss des Gehirns*. Th. 1, 2. Leipz. 1806. 8.

† *Neue Darstellung des Nervensystems, insbesondere des Gehirns*. Leipz. 1814. 4.

‡ *Beyträge zur Entwicklungsgeschichte des menschlichen Gehirns*. Frankf. 1814. fol.

§ *Etwas über Hrn. Doct. Gall's Hirnschädellehre*. Berl. 1805. 8.

|| *Darstellung der Gall'schen Gehirn- und Schädellehre, nebst den Bemerkungen von C. W. Hufeland*. Berl. 1805. 8.

¶ *Prüfung des Gall'schen Systems der Hirn- und Schädellehre*. Jena, 1805. 8.

** *Die Gall'sche Hirn-Schädel- u. Organenlehre*. Heidelb. 1806. 8.

†† *Erörterung des Gall'schen Versuchs einer fortgesetzten Gehirnlehre*. Halle, 1806. 8.

‡‡ *Anthropologische Bemerkungen über das Gehirn und den Schädel des Menschen*. Berl. 1806. 8.

§§ *Beantwortung der Ackermann'schen Beurtheilung und Widerlegung der Gall'schen Hirn-Schädel- und Organenlehre*. Halle, 1806. 8.

psychological objections against it,* but J. B. Demangeon† appeared as an apostle of a doctrine which, for seven years past, has been almost forgotten.

The continuance of sensibility in heads, after being cut off, still occupied some learned men. F. v. P. Gruithuisen ascertained, by experiments upon animals, that the farther from the head the neck was cut through, the more sensibility remained. ‡ Klein, in Stuttgart,§ did not find any marks of remaining sensibility in the head of a decapitated criminal. Extremely accurate, and full of instructive inferences, are the experiments of C. Gallois; || by means of which he proved, that the moving power proceeds from the spinal marrow, and that the power which regulates voluntary motion originates in the brain. G. G. T. Keuffel again examined the importance and the internal structure of the spinal marrow. ¶ S. T. Sömmerring attempted to prove the activity of the nerves in producing and conveying a subtle volatile (imponderable) matter, which, reabsorbed by the lymphatics, even serves as nourishment to the body. ** In the same manner, P. A. Prost had previously imagined, that he had discovered the principle of sensibility to reside in the humours. †† J. F. Ackermann endeavoured, quite lately, to re-establish the ancient Aristotelian opinion of the origin of the nerves from the heart. ‡‡

These researches concerning the nerves and their functions lead us naturally to Somnambulism and the phenomenon of Clairvoyance, under those circumstances where the activity of the brain is interrupted, and that of the ganglions increased, and where the organic sense, produced by the latter, takes the place of sensibility. This phenomenon, in former times looked upon with superstition, was, in this period, considered in a more correct point of view, and an explanation suitable to the new physiological discoveries attempted. K. F. Schelling was the

* *Moniteur Univ.* No. 164, 173, 179.

† *Physiologie intellectuelle.* Paris, 1806.

‡ Ueber die Existenz der Empfindung in den Köpfen und Rümpfen der Geköpften. Augsburg, 1808. 8.

§ Anhang zu *Elefert* über ärztliche Untersuchung des Gemüthsstandes. uttg. 1810. 8.

|| *Experiences sur le principe de la vie.* Paris, 1812. 8.

¶ *Diss. de medulla spinali.* Hal. 1810. 8.

** Ueber den Saft, welcher aus den Nerven wieder eingesaugt wird. Landsh.

1811. 8.

†† *Essai physiologique sur la sensibilité.* Paris, 1806. 8.

‡‡ *De nervi systematis primordiis.* Mannh. 1813.

first who, after the experiments instituted by J. A. Schmidt in Vienna, tried to explain these phenomena from the laws of general sympathy.* But even here appeared the love of the miraculous, mistaking the limits between the true and the false. For in the effects of what is called vital (animal) magnetism, the power of the will is regarded as absolutely necessary. By one of the most celebrated advocates of this doctrine, A. M. J. Chastenot de Puysegur, there appeared a valuable work,† in which all the known facts are collected. The most ridiculous abuse of the doctrine of general sympathy was made by *Roucher de Ratte*, in order to discover the thoughts of others.‡ In Germany, Rhabdomancy, or the subterraneous Electrometry, or what J. W. Ritter denominates *Siderismus*,§ was deduced from the same principles as somnambulism, after Francis Campetti, the pretended feeler of metals, had, in August and September 1807, performed his tricks before the academy at Munich. According to C. F. Nasse's experiments,|| the magnetic sleep-walkers have not only the most striking susceptibility for metals, but also for electricity. L. W. Gilbert, when he opposed rhabdomancy in general, could not deny these phenomena. ¶ A. Wienholt, on the contrary, in his lectures, protected not only the rhabdomancy, but endeavoured to explain it, as well as the phenomena of vital magnetism, by the sensible atmosphere of the nerves.** *Fr. Hufeland* assumed, as the first principle of vital magnetism, the general reaction of bodies;†† and his brother acknowledged likewise, that the magnetic phenomena might be explained from a communication of a general imponderable matter.‡‡ K. A. F. Kluge§§ gave a very careful, but not sufficiently critical, description of the phenomena of magnetism. A. F. Kessler,||| and E. Bartels, endea-

* *Jahrb. der Medic.* B. 2. H. 1, 2.

† *Du magnétisme animal.* Paris, 1807. 8.

‡ *Mélanges de Physiologie, de Physique, et de Chimie.* Paris, 1805. 8.

§ *Beitr. zur nähern Kenntniss des Galvanismus.* Tübing. 1805. 8. K. Amort's Unters. über die Rhabdomantie, herausg. v. J. W. Ritter. Berl. 1809. 8.

|| *Reif's Arch.* B. 9. S. 257.

¶ *Kritische Aufsätze über die in München wieder erneuerten Versuche mit Schwefelkies-Pendeln und Wünschelruthen.* Halle, 1808. 8.

** *Heilkraft des thierischen Magnetismus aus eigenen Beobachtungen.* 3ter Th. von Scherf herausg. Lemgo, 1805, 1806. 8.

†† Ueber Sympathie. Weimar, 1811. 8.

‡‡ *Hufeland's Journal*, B. 29. St. 2.

§§ *Versuch einer Darstellung des animalischen Magnetismus als Heilmittel.* Berl. 1811. 8.

||| *Himly's Ophthalmol. Biblioth.* B. 3. St. 3.

voured to explain Somnambulism and *Clairvoyance*, and once more to support rhabdomancy,* by supposing the activity of the brain to be transferred to the ganglions; and *John Spindler* tried to explain all kinds of superstition, even P. Gassner's devilries, by means of vital magnetism, in a manner which certainly he himself cannot have understood.† How much encouragement was afforded to superstition and enthusiasm by the doctrine of animal magnetism, is particularly evident from the example of *P. F. Walther*,‡ who ventured to deduce the effects of medicines from the belief of the physician. *Herzog* subjected these explanations to an examination, by which he attempted to prove the immaterial nature of the magnetic agent, and to disprove what is called the nervous atmosphere of the whole body.§ *K. Wolfart* began a journal (*Asklepeion*), in which he collected theories and observations concerning vital magnetism. Among the latter, there are many || ill-told stories, which, by impartial judges, were found to be quite different; to which may be added those by *A. W. Müller*,¶ and by *F. K. v. Strombeck*.** But *Desessarts* †† related faithfully and impartially a history of somnambulism, which arose without any evident cause, and, in like manner, *Comstock* gave the history of a curious nervous disease, the symptoms of which were near akin to the phenomena of magnetic somnambulism. ‡‡ In Berlin, there was formed a committee for the examination of vital magnetism, and of late, *Wolfart* travelled to visit the founder of this doctrine, of whom he published some manuscripts, which contain the most strange explanations concerning the essence of bodies; §§ and among others, a renewal of the obsolete theory concerning the small-pox, arising from bad humours in the navel-string. The Prussian government, in order to obviate the abuses of magnetising, restricted this method of cure to the privileged physicians, and gave the super-

* Grundzüge einer Physiologie und Physik des Animal. Magnetismus. Frankfurt a. Main, 1812. 8.

† Ueber das Princip des Menschen-Magnetismus. Nürnberg, 1811. 8.

‡ Marcus Ephemeriden der Heilk. B. 4. St. 5.

§ Neuestes Journ. der Erf. B. 2. S. 303. fol.

¶ Ueber das Magnetisiren der Pflanzen, im neuen Asklep. II. 2. S. 141.

‡ Reil's Archiv, B. 10.

** Geschichte eines allein durch die Natur hervorgebrachten animalischen Magnetismus. Braunschweig, 1813.

‡‡ Journ. de Sedillot, Tom. XL.

‡‡ Lond. Medic. and Phys. Journ. 1808. Sept.

§§ Meiermann, oder System der Wechselwirkung u. s. f. Berl. 1814. 8.

intendence of it to the state physicians.* *C. C. Matthäi* published some excellent observations about the influence of magnetism upon the powers of the mind.† *Deluze* edited a critical history of it,‡ in which many practical observations of his own are recorded with great predilection for this doctrine. At last *John Stieglitz* appeared as one of its most learned and acute opponents; § and though he justly criticised the hasty explanations which threatened to become predominant in modern times, yet he rejected many indisputable facts, because he had not been an eyewitness of them himself. He seems to me to be particularly in the wrong when he represents the effluvia of the person as the source of the influence of the magnetiser, and is not willing to admit of the transition of any matter whatever, out of the one body into the other, without assimilation.

We leave this subject in order to mention the other discoveries in physiology during this period. *S. C. Luch* examined the nerves peculiar to the arteries, and distinguished them from those of the cellular substance; he demonstrated that the smaller branches of arteries, especially in the head, are destitute of nerves. || The history of the great intercostal nerve was subjected to a new examination by *Ant. Portal*. ¶

The manner in which the organs of sense act, was rather rendered more obscure than explained, in the language of the new philosophy, by *A. F. Kessler*.** More valuable was the before-mentioned observation of *Brandis*, that, in the organs of the upper senses, there are two kinds of nerves which act with polarity upon each other, and that, in the sphere of the one, the negative form of water (hydrogen) predominates, and the positive (oxygen) in that of the other. †† *J. G. Steinbuch* delivered some instructive views, though partly material ‡‡ and assumed in the retina of the eye a specific production of light, in order to explain the phosphorescent appearance of the eye. §§

The internal structure of the muscles was examined by

* *Hufeland's Journ.* B. 55. St. 1.

† *Horn's Archiv*, 1811. März.

‡ *Histoire critique du magnetisme animal.* Paris, 1813. Vol. I. II.

§ *Ueber den thierischen Magnetismus.* Hannov. 1814. 8.

|| *Observat. anatom. circa nervos arterias adentes.* Pref. ad Moen. 1810. 4.

¶ *Mém. de l'Inst. Nat.* Vol. IV.

** *Ueber die Natur der Sinne.* Jena, 1805. 8.

†† *Brandis Pathol.* S. 260.

‡‡ *Beitrag zur Physiologie der Sinne.* Nürnberg, 1811. 8.

§§ *Hufeland's Journ.* B. 26. St. 1.

Bonsdorf.* *A. Carlisle* investigated the actual change of muscular fibres when in motion;† and *John Barclay* delivered a theory of the voluntary motions, which is almost useless, owing to his unintelligible names of the muscles.‡

No function of the body was more accurately investigated in all points of view, and in all its relations, than respiration. *Sommerring* and *Reisseisen* examined at the same time the lungs, their cells, and the termination of the vessels, and taught that the par vagum, and not the intercostal nerve, supplies the bronchial vessels.§ For this last reason, and from experiments, *M. A. Caldani* concluded respiration to be voluntary.|| *Dupuytren's* experiments established the influence which the par vagum has upon the functions of the lungs, and upon the change of the colour of the blood. Even by alternate pressure upon the nerves, the red blood was darkened. Hence he concluded, that such animals die in a state of asphyxia; he also found *Bichat's* observations confirmed, that, after the division of the pulmonary nerve, life continues for a time.¶ *Ducrotay de Blainville* extended these experiments to several classes of animals, and found, that in birds, after the division of both nerves, life not only continues for six or seven days, but that likewise the chemical properties of the blood suffer little change.** These experiments were rectified by *Dumas*; he shewed that the arterial blood became black in consequence of the disturbance of the function of the lungs, caused by the pain from dividing the nerves.†† Similar conclusions were drawn from the experiments of *Pravaz*,‡‡ and of *A. G. F. Einert*;§§ from the latter of which, it appeared that the change of venous into arterial blood continues to take place even after the division, provided the air still penetrate into the lungs. By the experiments of *C. Gallois* already mentioned,

* *A. J. Lille* diss. de intrinseca musculorum fabrica, und *A. R. Bouché* diss. de ruboris musculorum sede. Abt. 1806. 4.

† *Philos. Transact.* 1805, Vol. I.

‡ *The Muscular Motion of the Human Body.* Lond. 1808. 8.

§ *Ueber die Structur, die Verrichtung und den Gebrauch der Lungen.* Zwey Preisschriften. Berlin, 1808. 8.

|| *Memorie dell' Accad. di Mant.* Vol. I. p. 100. *Memorie lette nell' Accad. di Padova*, p. 150.

¶ *Nouveau bulletin des Scienc.* Tom. I. No. 2. p. 28. *Salzb. Med. Zeit.* 1808. B. 1. S. 169. fol.

** *Nouv. bullet. des Scienc.* Tom. I. No. 12. p. 226. *Gehlen's Journ.* B. 7. S. 532.

†† *Moniteur*, 1808. No. 519. *Gehlen's Journ.* B. 9. S. 744.

‡‡ *Journ. de Sedillot*, Tom. XXXVII.

§§ *Reil's Archiv*, B. 9. S. 407.

it was finally proved, that the impulse to the motion of the organs of respiration likewise proceeds from the spinal marrow, and that in animals, after their heads were cut off, respiration could be supplied by the blowing in of air. *P. H. Nysten* shewed, by experiments, to what changes the chemical properties of the expired air are subject in diseases.*

Comparisons with the phenomena in other classes of animals are nowhere more necessary than for the explanation of respiration. Hence the observations and experiments of *F. L. A. W. Sorg*,† and of *C. L. Nitzsche*,‡ were very valuable, as explaining the difference of the changes which respiration produces in the lower classes of animals; hence likewise *F. v. P. Gruthuisen*, in his above-mentioned *Organozoömy*, and *L. Oken*, in his *Philosophy of Nature*, justly believed direct respiration, without circulation, to consist in the gases passing immediately into the body, but that, in the higher classes of animals, and in man, in particular, the changes of the fluids in respiration are produced more by an internal activity. Hence it is necessary to limit the earlier assertion of *Humphrey Davy* and *J. Bostock*,§ that, even in man, oxygen, and even nitrogen, are really consumed in respiration, and that the former is not employed only for the formation of carbonic acid gas. This opinion was, indeed, totally refuted by *W. Allen* and *W. H. Peppé*,|| who proved, that, in man, the blood never absorbs any nitrogen in respiration, and that the whole of the oxygen is employed for the formation of carbonic acid. *Humboldt*, *Pravaz*, and *Confaglia*, on the contrary, pointed out the immediate passage of the gases in fishes and the lower animals, and their deposition in the swimming-bladder of the former.¶

L. Oken examined also more carefully the respiration of the fetus in utero,** and pointed out that the vessels of the navel-string are only subservient to the oxydation, not to the nourishment of the child. *Nasse* tried to prove that this oxyda-

* *Recherches de Physiologie et de Chimie Pathologique.* Paris, 1811. 8.

† *Disquisitiones Physiologicae circa respirationem insectorum et vermium.* Rudolb. 1805. 8.

‡ *Diss. de respiratione animalium.* Witeb. 1808. 4. u. in *Reil's Archiv*, B. 10. S. 440.

§ *Versuch über das Athemholen.* Aus dem Engl. von *A. F. Nolde*. Frf. 1809. 8.

|| *Harles's Journ.* B. 10. und *Schweigger's Journ.* B. 1. S. 182.

¶ *Schweigger's Journ.* B. 1.

** *Siebold's Locina*, B. 3. St. 2.

tion is very imperfect, and that, therefore, an imperfectly oxydized blood is sufficient for the nourishment of the child.*

J. B. Wilbrand† published general views of respiration according to the new philosophy; S. Méhes,‡ a collection of the known facts according to J. F. Ackermann's Theory; and E. Bartels,§ a critical history of this function.

The doctrine of the generation and growth of the embryo was subjected to accurate investigation, which was crowned with successful results. The idea that the embryo of the higher animals passed from its first origin, through the various stages observed in the lower animals, first hinted at by Harvey and K. F. Wolf, was beautifully explained by L. Oken,|| J. F. Meckel,¶ and F. Tidemann.** The use of the vesicula umbilicalis at the earlier period of the embryo, and the origin of the intestinal canal from it, were pointed out by D. G. Kieser†† and Oken.‡‡ The latter explained from this fact the production of umbilical ruptures.§§ The diverticula of the intestinal canal, as they are called, were likewise explained in the same way by J. F. Meckel|| and by J. B. Lucä.¶¶ The function of the thymus gland was by Flor. Caldani thought to consist in*** the dilution and assimilation of the lymph and chyle; and for this purpose he endeavoured to shew a communication between this organ and the thoracic duct. The influence of the thymus gland, in preserving the imperfect state of oxydation in the blood, was explained by J. F. Meckel from its enlargement in deficient respiration.††† A. W. Otto illustrated these and other relations from the examination of monsters.‡‡‡ His view of the production of monsters without heads or brains, in consequence of hydrocephalus, was not quite agreeable to the

* Reil's Archiv, B. 10. S. 263.

† Ueber das Verhalten der Luft zur Organisation. Münster, 1807. 8.

‡ De Respiratione Animalium Commentatio. Heidelb. 1808.

§ Die Respiration. Berl. 1814. 4.

|| Die Zeugung. Hamb. 1805. 8.

** Abhandl. aus der menschl. und vergleich. Anatomie. Halle, 1806. 8.

†† Anatomie der kopflosen Missgeburten. Landsh. 1813. fol.

‡‡ Der Ursprung des Darmcanals aus der vesicula umbilicalis. Gött. 1810. 8.

§§ Beytr. zur vergl. Zoonomie. H. 1. Hamb. 1806. 8.

|| Preischrift über die Entstehung und Heilung der Nabelbrüche. Landsh. 1810. 8.

¶¶ Beytr. zur vergl. u. menschl. Anat. H. 1. Handbuch der patholog. Anatomie. S. 560.

** Anatom. Bemerkungen über die Diverticula am Darmcanal und über die Höhlen der Thymus. Nürnberg. 1813. 4.

††† Conghiatura sopra l'uso della glandola timo. Venez. 1808. 4.

‡‡‡ Handb. der pathol. Anat. S. 489.

‡‡‡ Monstrorum sex humanorum anat. et physiol. disquisitio. Frkf. 1811. 4.

true history of the evolution of the human embryo. J. C. Zimmer made some interesting observations in dissecting monsters;* still he did not explain the malconformations, ascribed to the fault of the mother, so happily as J. F. Meckel, who regarded them as consequences of interrupted organization. A. Wienholt adopted a dynamic influence of the mother upon the child, and thought he was able to explain many monstrous births from mechanical principles.† Vinc. Malacarne explained admirably the origin of monsters without heads, and of the enlarged hydrocephalus; and, at the same time, refuted Gall's view of the unfolding of the brain.‡

The difference and similarity between the parts of generation in both sexes, was first demonstrated by J. F. Ackermann;§ but with more precision, and more comprehensively, by J. H. F. Autenrieth,|| J. C. Rosenmüller,¶ A. Meckel, with reference to the formation of the intestines,** and by K. F. Burdach.†† Similar comparisons, illustrated from the history of development, were instituted by L. Oken, even with the bones of the cranium and the rest of the skeleton; and he imagined the thorax to be copied in the nasal-bones, and the extremities in the jaw-bones.‡‡ How very useful comparative anatomy, and the history of the development of the human embryo, are for explaining almost all congenital malconformations, was excellently demonstrated by J. F. Meckel.§§ In this manner we were enabled to explain, among others, the hare lip, which baffled Jos. Anna.|||| General illustrations of development were given by J. W. T. Zanders,¶¶ J. Malfatti,***

* Physiol. Untersuchungen über Missgeburten. Rudolst. 1806. 8.

† Sieben Vorlesungen über die Entstehung der Missgeburten. Bremen, 1807. 8.

‡ Oggetti più interessanti di ostetricia e d'istoria naturale. Pad. 1807. 4.

§ Infantis androgyni historia et ichnographia. Jen. 1805. fol.

|| Reil's Archiv, B. 7. S. 1.

¶ Abh. der physic. medic. Societät zu Erlangen, B. 1.

** Dias. de genitalium et intestinorum analogia. Hal. 1810. 4.

†† Anat. Untersuchungen. Leipz. 1814. 4.

‡‡ Ueber die Bedeutung der Schädelknochen. Jen. 1807. 4.

§§ Handb. der Pathol. Anatomie. B. 1. Leipz. 1812. 8.

|||| Beschreibung u. Abbild. eines Wolfzrachens. Rast. 1805. 8.

¶¶ Beiträge zu einer Geschichte der Thiermetamorphose. Köln. 1807. 8.

*** Entwurf einer Pathogenie aus der Evolution und Revolution des Lebens. Wien. 1809. 8.

with application to pathology, S. C. Lütz, * and A. Hanke. †

After L. Catz's ‡ investigation of the two muscular layers of the uterus with intervening cellular substance, the function of the uterus was explained by J. C. Reil by polarity; § against which, some weighty objections were urged by J. C. G. Jörg, || to whom we are also indebted for an excellent comparative representation of the organs of parturition in women and other animals. ¶

We conclude this review of the progress of physiology with enumerating the discoveries and corrections upon particular subjects. Sir E. Home examined more accurately the structure and functions of the spleen. ** He believes he has found that the drink passes directly from the stomach into the spleen. Upon the system of the vena portarum, Comr. Hönlein published an admirable work, on account of its illustrations derived from comparative anatomy. †† The lymphatic system has been investigated by Stavis. Gilbert, ‡‡ the system of the skin by Gantier, §§ the capillary vessels by G. Prochaska, || by whom also the permeability of the sides of the vessels has been adopted, in which J. F. S. Poschwitz had before asserted, that there were pores actually visible. ¶¶ H. C. A. Ostheff explained the doctrine of nutrition and assimilation minutely and profoundly; *** and Emmert determined exactly the chemical relations of

* Unters. über einige Gegenstände des Zeugungsgeschäfts. 12. Frkf. a. M. 1815.

† Über die Entwicklungs-Perioden des menschlichen Organismus. Nürnberg. 1818. 8.

‡ Reil's Archiv, B. 7. S. 341.

§ Dasellat, S. 394—501.

¶ Neues Journ. der Erf. St. 19.

|| Ueber das Gebärg-Organ des Menschen und der Säugethiere. Leipz. 1808. fol.

** Nicholson's Journ. Vol. XX. No. 50; Vol. XXI. No. 92. Reil's Archiv, B. 9. S. 325.

†† Descriptio anatomica systematis venae portarum. Mogunt. 1808. fol.

‡‡ Essai sur le système lymphatique. Paris, 1803. 8.

§§ Recherches Anat. sur le système cutané. Paris, 1811. 4.

|| Bemerkungen über den Organismus des menschl. Körpers. Wien, 1810.

¶¶ Bestimmung des durch die Gefäß- und Nerven Poren entweichenden flüchtigen Stoffes. Gießen, 1803. 8.

*** Rhapsodien aus der Lehre von der assimilativen und reproductiven Function des Organismus. Erf. 1806. 8.

chyle.* The use of the epiglottis was doubted by Magendie, † because he observed in dogs, from which it was removed, a complete closure of the glottis when they drank. But A. C. Meyer ‡ shewed very satisfactorily, that, in man, the epiglottis actually prevented the entrance of what was swallowed into the glottis, and also contributed to the formation of the voice.

That various, particularly metalline substances, and among these quicksilver, resist the process of assimilation, and pass directly into the blood, was proved by the experiments of C. M. Zeller, § who obtained metallic quicksilver from the blood of animals upon which he had rubbed it; and that quicksilver reappeared in the perspiration, during a mercurial treatment, was again observed. ||

III. Pathology.

As the progress of pathology must always depend upon that of physiology, the improvement of the former science, during this period, corresponds with the discoveries made in the natural history of the human body.

We begin with the elementary works. Among these, there appeared new editions of Sprengel's Elements of Pathology; ¶ also a Latin translation of the whole work, in two volumes. ** A. Winkelmann's publication was founded upon the doctrine of the three different systems of the body. †† Andrew Röschlaub, who had determinedly abjured the theory of excitement, attempted now to advance new principles, ‡‡ which, however,

* Reil's Archiv, B. 8. S. 145. fol.

† Zwey Abb. über das Erbrechen und den Nutzen des Kehlkopfs bey dem Verschlucken. Aus dem Franz. von Dittmar. Bremen, 1814. 8.

‡ Abh. Med. Zeit. 1814. B. 3. S. 181.

§ Experimenta circa hydrargyri effectus in animalia viva. Tub. 1808. 8.—

Reil's Archiv, B. 8. S. 213. fol.

|| Horn's Archiv, 1810. Jul. S. 252.

¶ Von Sprengel's Handbuch der Pathologie die dritte Auflage des zweyten Theils, 1806, des dritten Theils, 1810, die vierte Auflage des ersten Theils, 1814.

** Institutiones Pathologiae generalis et specialis, Vol. I. II. Amst. 1815, 1814. 8.

†† Entwurf der dynamischen Pathogenie. Braunsch. 1805. 8.

‡‡ Von dem Einzelleben als geschieden vom Gesamtleben, der Natur, von der Getrenntheit des geistigen Lebens vom körperlichen.

have appeared to be of little value. * *A. F. Hecker's* sketch† was not remarkable either for novelty of ideas or exactness. The same may be said of *L. P. Burdach's*‡ and *A. Henke's* publications§ on the subject, in the latter of which, the theory of excitement is predominant. *J. D. Brandis*|| explained pretty well some physiological and pathological doctrines; for example, the teleological notion of disease, the deranged associations, and the doctrine of infection; but, upon the whole, he rather furnished additions to physiology and pathology, than an elementary work on the latter science. *J. Spindler* in his publication¶ has accumulated learned nonsense. *D. G. Kieser's* work** also is distinguished by the misapplication of the oriental dualism, and the totally misunderstood laws of curves, to the explanation of diseases. *J. W. H. Conradi's* treatise, †† on the contrary, deserves great praise, owing to the considerate use he made of the newest discoveries, its good arrangement, and a judicious selection of literature. *E. Grossi* also, in his treatise, ‡‡ delivered a methodical, natural-historical explanation of the changes which take place in particular parts of the body, in consequence of disease. *F. G. Gmelin's*§§ and *P. C. Hartmann's* books||| are to be reckoned among the best and most original attempts to deliver this science in a better order than has been hitherto done.

A new nosology, arranged very like *Cullen's*, taking into view all the exciting causes of diseases, was published by *F. Svediaur*; ¶¶ often, however, it is not sufficiently critical, and scarcely ever mentions authorities.

The doctrine of the diagnosis of diseases was delivered in an ingenious and useful tabular form by *K. G. Schmalz*. *** The

* Lehrb. der besondern Nosologie, Iatrecuologie und Jaterie. Abth. 1, 2. Frkf. a. Main, 1807, 1808. 8.

† Kurzer Abriss der Pathologie und Semiotik. Berl. 1806. 8.

‡ Handbuch der Pathologie. Leipz. 1808. 8.

§ Handbuch der allgemeinen und speciellen Pathologie. Thl. 1—3. Berl. 1806—1808. 8.

|| Pathologie, oder Lehre von den Affecten des lebendigen Organismus. Hamb. 1808. 8.

¶ Allgemeine Nosologie und Therapie als Wissenschaft. Frkf. a. M. 1810. 8.

** Grundzüge der Pathologie und Therapie des Menschen. Jena, 1812. 8.

†† Grundriss der Pathologie und Therapie. Thl. 1, 2. Marb. 1811, 1812. 8.

‡‡ Versuch einer allgem. Krankheitslehre. B. 1, 2. München, 1811. 8.

§§ Allgem. Pathologie des menschl. Körpers. Stuttg. 1815. 8.

||| Theoria morbi s. pathologia generalis. Viennæ, 1814. 8.

¶¶ Iatrica, s. novum medicinae rationalis systema, Vol. I. II. Hal. 1812. 8.

*** Versuch einer medicin. chirurgischen Diagnostik in Tabellen. Leipz. 1806, fol. und Dred. 1808. fol.

investigation of diseases, at the bed-side of the sick, was once more explained by *K. C. Heuser*,* who followed the example of his illustrious predecessors.

Semiotics, or the doctrine of morbid signs, also gained some additions, or at least corrections. *A. F. Hecker*† threw out some good ideas how semiotics were to be improved, and how they were injured by system. *J. C. A. Heinrich* re-edited *F. G. Danz's* work.‡ *K. Wolfart*§ also pretended to remodel semiotics; but it is doubtful if his mystical language was intelligible to himself. In France, it was still thought sufficient to apply and explain the dogmas of *Hippocrates*; || but *Doubs*¶ collected some good observations on voice and speech, and the various circumstances of the external appearance as signs of disease. *Hernandez*** published a prize essay on the signs derived from the tongue. The remarks made by *Dumas*†† on the changes of the features of the face, as signs in disease, were interesting. *Joh. Löw*‡‡ represented the urine as an important sign, but chiefly from extravagant philosophical ideas. The remarks of *J. A. Elsasser*§§ on the swelling of the parotids in acute diseases, were more important.

Morbid anatomy, a very useful assistant to pathology, was cultivated successfully, and partly upon new principles. In Germany, we must consider *P. F.* and *J. F. Meckel* as the most intelligent masters, promoters, and founders of this science. The former left behind him the first part of the Journal for anatomical varieties, ||| in which single observations upon the diseases of the uterus and urinary organs occur; he also caused and promoted *Voigtel's* manual.¶¶ But his son's work, with the same title, which we have already mentioned, has acquired the reputation of being classical by the admirable elucidation of the idea that

* Ueber Kranken-Examen. Rinteln, 1806. 8.

† Annalen, B. 3. S. 1—18.

‡ Allgemeine medicinische Zeichenlehre. Leipzig, 1812. 8.

§ Ueber die Bedeutung der Zeichenlehre in der Heilkunde. Berlin, 1810. 8.

|| Gaillen im Journ. de Sedillot, Tom. XLI. Août.

¶ Journ. de Sedillot, Tom. XXXII. Juin, Juil. Tom. XXXIII. Dec. Tom. XXXIV. Janv. Av. Tom. XXXV. Juin. Tom. XXXVII. Janv. Tom. XXXVIII. Mai.

** Mém. sur la question proposée par la soc. de méd. de Lyon: Quelles sont les signes, que peut fournir la langue? Toulon, 1808. 8.

†† Journ. de Sedillot, Tom. XXXIX. Dec.

‡‡ Ueber den Urin, als Zeichen. Landshut, 1809. 8.

§§ Diss. de natura parotidum malignarum in morbi acuti. Tubing. 1809. 8.

¶¶ Feinere und patholog. Anatomie. Halle, 1805. 8.

*** Handbuch der pathologischen Anatomie. B. 1—5. Halle, 1802—1805. 8.

congenital malformations are, in a great measure, to be explained from the process of development in the embryo being progressive; and by the sound criticism of our previous information. Nor is *A. W. Otto** without merit. *G. Fleischmann*† has also acquired considerable praise by his explanation of malconformations. *Jos.* and *Charles Wenzel*‡ ascertained the morbid changes of the pituitary and pineal glands in the brains of epileptic subjects, and published excellent observations on the fungous excrescences of the dura mater. § *J. H. P. Astenrieth* and *J. F. Pfeleiderer* || described a case of difficult deglutition, in consequence of the origin of the right subclavian artery on the left side, and its passing upwards to the right, between the oesophagus and the spine.

In France, there appeared a capital work by *Portal*, ¶ full of solid observations on morbid conformations in the structure of the body. In England, *C. Bell's*** admirable engravings to elucidate morbid anatomy have lately been published, as well as *W. Farré's*†† observations on the diseases of the liver, upon which subject, and the diseases of the spleen, *Benj. Rush*‡‡ laid open the treasure of his experience. Among the Italians, *A. J. Testa*§§ deserves especially to be named, whose work on the diseases of the heart contains many important additions to pathological anatomy. *Vior. Caldani* || also published some interesting observations.

The laws of pathology itself were, during this period, examined with less partiality than formerly, as it was universally acknowledged, at least in Germany, that disease, as an affection of life, can only have its seat in the living parts, diversified according to the various systems of the body, but that the mechanical and chemical derangements cannot be overlooked, in explaining the whole of the diseased state.

The limited dynamic views of the school of excitement were already revived by *W. A. Ficker*, ¶¶ and, in the division of animal

* Handb. der patholog. Anatomie. Bresl. 1814. 8.

† De vitis congenitis circa thoracem et abdomen. Erl. 1810. 4.

‡ Beobachtungen über den Hirnanhangsfallsüchtiger Personen. Mainz, 1810. 8.

§ Über die schwammigen Auswüchse auf der äussern Hirnhaut. Mainz, 1811. fol.

|| Diss. de dysphagia lusoria. Tubing. 1806. 8. *Reil's* Archiv, B. 7. S. 145. fol.

¶ Cours d'anatomie médicale. Tom. I.—V. Paris, 1805. 8.

** Engravings from specimens of morbid parts. Lond. 1813. fol.

†† Morbid Anatomy of the Liver, P. I. Lond. 1813. 4.

‡‡ Medie. and Phys. Journ. Vol. XVI. Sept. 1806 p. 193. f. Samml. für prakt. Aerzte, B. 25. S. 517. f.

§§ Delle malattie del cuore, Vol. I.—III. Bologna, 1811. 8.

|| Mem. della soc. Ital. Vol. XII. P. 2.

¶¶ Aufsätze und Beobachtungen mit jedesmaliger Hinsicht auf die Erregungstheorie. B. 2. Paderborn, 1806. 8.

life into three degrees, only that developed that reproduction repeats itself in all structures. *J. Brown's* works were again published in 1806, in three volumes, at Frankfort, by *A. Röschlaub*; and *J. J. Kauch* endeavoured to correct the idea of asthenic and asthenic disease,* and to determine more precisely the relation of the powers. † *J. R. Giese* ‡ shewed himself more prejudiced, as he only rejected the unity and indivisibility of excitability, but adhered to the Brunonian dichotomy. *Fr. Hildebrandt* § examined more accurately the different ideas of debility.

It appears, from the example already quoted of *J. Tommasini*, that the Italians had previously begun to have a clear perception of the weak points of the system of excitement, and hence *Francis Panzago*, || in investigating each disease, takes three points of view; 1. the diathesis or dynamic relation; 2. the pathologic condition, or local material changes; and, 3. the form of the disease, or aggregate of the symptoms. The idea of direct debility, which *Jos. Giannini* ¶ had endeavoured to correct by supposing relaxation of the nervous, and excitement of the other systems, was admirably elucidated by *C. C. F. Jäger*, ** and a fluctuation, an unequal distribution through the nerves of the imponderable principles assumed as the most frequent cause of what is called debility. This idea is also followed out by *J. F. Ackermann*, †† although, according to his earlier chemical views, he still makes oxygen play the principal part. *J. G. Schäffer* ‡‡ had previously brought into view the diversity of debility in the different systems of the body. Also *A. H. F. Gutsfeldt* §§ had investigated the idea of debility successfully, but *K. Wulfsart* || by no means. *Wagner* ¶¶ and *J. G. F. Henning* *** inquired into the morbid irritability and idiosyncrasy connected with debility.

With these views the opinion of original diseases of the fluids, maintained in the preceding period, was incompatible.

* *Hufeland's Journ.* B. 27. St. 2.

† *Hufeland's Journ.* Bd. 20. St. 1, 2.

‡ Grundsätze zu einem System der Heilkunde. Münt. 1811. 8.

§ Abhandl. der phys. med. Societät in Erlangen, B. 2.

|| Saggio sulle differenze essenziali delle malattie universali. Padov. 1809. 8.

¶ Della natura delle febbri, Vol. I. II. Milano, 1805—1809. 8.

** Ueber die Natur und Behandlung der krankhaften Schwäche des menschl. Organismus. Stuttg. 1807. 8.

†† De construendis, cognoscendis, et curandis febribus. Heidelb. 1809. 8.

‡‡ *Horn's neues Archiv*, B. 4. 1807.

§§ *Hufeland's Journ.* Bd. 27. St. 2—4.

|| Im neuen Aeklepe. Hft. 1.

¶¶ *Hufeland's Journ.* B. 33. St. 5.

*** Ueber die krankliche Laune. Zerbst, 1810. 8. Ideen über Idiosyncrasie, Antipathie und krankliche Reizbarkeit. Stendal, 1812. 8.

They found, indeed, a defender in *H. M. Marcard*,* but *A. F. Hecker*, as he had done on a former occasion, † subjected them to an impartial examination, ‡ as did also *A. Henke*. §

There are, indeed, several remarkable facts, especially those collected by *A. J. Testa* || and *P. H. Nyssen*, ¶ which seem to prove that, at least in asthma, air passes over into the blood, or that gases may evolve themselves in the blood.

With this the doctrine of contagion is connected. Upon this subject the first correct views were given by *J. D. Brandis*, ** partly by a comparison of the propagation of disease by contagion with the process of generation, and partly by investigating the multiplication of the matter of contagion, as an imponderable substance. *A. W. Beyer* †† had already maintained, that the matter of contagion was of the nature of hydrogen; and *F. C. Bach* ‡‡ taught it more circumstantially, as well as the mode of acting of contagious matter, in the manner of imponderable substances, and the relation of epidemic with contagious diseases. *Fr. Schmorl* §§ published very interesting conclusions upon the nature of epidemic and contagious diseases. The stationary epidemics were by him considered as diseases of development in particular people and races, and their being independent of the weather and constitution of the air was proved. Several important observations on the infection of particular diseases were also made. Thus *Alibert* |||| thought himself obliged to deny the contagious nature of the poison of cancer, because he had inoculated himself with impunity. On the other hand, the communication of the carbuncle from cattle to the human subject was observed. ¶¶ That syphilis was communicable to animals, especially dogs, *S. Zeller von Zellenberg* *** thought he had observed; and *C. Ruggieri* ††† asserted, that local venereal symp-

* Versuch einer Beantwortung der Aufgabe: Welche besondere Krankheiten und Fehler der Feuchtigkeiten und Säfte finden im menschlichen Körper wirklich Statt? Utrecht, 1810. 8.

† Neues Journ. der Erf. St. 17, 18.

‡ Annalen, B. 3. S. 450.

§ Ueber die Vitalität des Bluts und primäre Säftekrankheiten. Berl. 1806. 8.

|| Delle malattie del cuore, Vol. III.

¶ Recherches de physiologie et de chimie pathologiques. Paris, 1811. 8.

** Pathologie. Hamb. 1808.

†† Momenta quorundam de contagiis, diss. Gott. 1805. 8.

‡‡ Grundzüge zu einer Pathol. der ansteckenden Krankheiten. Halle, 1810. 8.

§§ Materialien zu einer allgemeinen Naturlehre der Epidemien und Contagien. Tübing. 1810. 8.

|||| Salz. med. Zeit. 1809. B. 1. S. 190.

¶¶ Hafslund's Journ. B. 32. St. 1.

*** Abhandl. über die ersten Erscheinungen venerischer Local-Krankheitsformen und deren Behandlung. Wien, 1810. 8.

††† Storia di una blennorea prodotta da lambimento canino. Venez. 1809. 8.

toms had arisen from a dog merely licking the female parts of generation. *A. F. Hecker** imagined he could prove that syphilis becomes strangely degenerated, and even communicates itself without sexual connexion. *Larrey* † is also convinced that he observed in the East its degeneration into a leprosy, which can be cured by cinchona, camphor, and opium, without the aid of mercury. A singular form of syphilis, in which the general symptoms come on at once, without being preceded by local symptoms, was observed at Fiume. ‡ *Vassal* § thought he could prove that the contagion of syphilis was communicable to the fetus in the womb, by the process of nutrition, even when the mother exhibited no apparent symptoms of the disease. *E. Jenner* || observed several times, that the poison of small-pox was communicated to the child without affecting the mother.

Some experiments seemed to give a better explanation of the manner in which poisons act upon the body. According to *Mangili's* experiments, ¶ the poison of the viper only produces speedily fatal effects when it is taken up by the blood-vessels, or applied to muscular organs, for its operation is slow when it acts through the absorbents, and it does not prove fatal when directly applied to the nerves. The volatile oil of bitter almonds and laurel-water contains Prussic acid, which is found to be a rapid poison when applied to the muscular or sanguiferous system. ** More recently, the body of a self-murderer was examined, who had killed himself with an ounce of spiritous Prussic acid. All the blood was blue-black, smelt strongly of bitter almonds, and was accumulated in the veins. †† *G. F. Jäger* ‡‡ made the action of arsenic on organized bodies the subject of his investigation. He proved that oxygen is not predominant in arsenic,—that exposed nerves do not convey the effects of the poison to the body,—but that it operates by the reduction of the power of action, and the excitement of the sensibility.

Climate, and the constitution of the atmosphere, are unquestionably to be considered among the most general and important causes of disease. This subject was thoroughly examined

* Hafsl. Journ. B. 26. St. 4.

† Denkwürdigkeiten, S. 175, 176.

‡ Journ. de Schollot, Tom. XLII. Sept.

§ Mémoire sur la transmission du virus vénérien de la mère à l'enfant. Paris, 1807. 8.

|| Medic. Chirurg. Abb. der Ges. in Lond. B. 1. Aus dem Engl. Berl. 1811. 8.

¶ Sul veneno della vipera. Pavia, 1809. 8.

** C. F. Ennert diss. de venenatis acidi borussici in animalia effectibus. Tübing. 1805. 8.

†† Horv. Archiv, 1813. Mai—Dec. 510.

‡‡ Diss. de effectibus arsenici in varios organismos. Tübing. 1808. 8.

by *Fr. Schnurrer*.^{*} A great many more or less useful medical topographies were also published. Among those relating to Germany, we may enumerate what are mentioned in the note.† From France we received publications by *Menuret*‡ and *Murat*§. In England, suggestions for the writing of medical topographies were published by *W. Woodcombe*,¶ and similar suggestions, in regard to Sweden, were published by *C. Travençelt*.¶

That the epidemic constitution was independent of the chemical composition of the air, was proved not only by *F. Schnurrer*, as already mentioned, but also by *H. Robertson*.** *W. Kuoblauch* derived the course of general diseases from the involutions and evolutions of life; †† and *C. F. Harles*‡‡ made some interesting observations on the permanent epidemic constitutions. The last mentioned author also applied the science of electricity to the explanation of diseases, §§ which was also successfully done by *G. Thénard*.|| *Chavassieu d'Audebert*¶¶ investigated moist air, and the exhalations from stagnant water, as a cause of disease. On the contrary, *Th. Sutton****

* *Geograph. Noologie*. Sturg. 1813. 8.

† *F. A. Memminger's* Versuch einer Beschreibung der Stadt Reutlingen, 1805. 8.
Joh. Schneider's Versuch einer Topographie der Residenzstadt Fulda, 1806. 8.
J. H. Kopp's Topographie von der Stadt Hana, Erf. 2. M. 1807. 8.
A. F. Nölde medic. und anthropolog. Bemerk. über Rostock und seine Bewohner. Abth. 1, 2. Erf. 1807. 8.

‡ *Frank* über den Gesundheitszustand des Depart. von Posen, in *Hufeland's Journ.* B. 24. St. 4.

§ *St. Benedict's* Topogr. Kunde von der Hauptstadt Grätz. 1808. 8.

¶ *Jos. Steiner's* Versuch einer medicinischen Topographie vom Landgerichtsbezirk Parkstein und Weyden in der oberr. Pfalz. Sulzbach, 1808. 8.

¶ *Phil. J. Horst's* Beobachtungen über die Witterung und die Krankheiten in Würzburg im Jahre 1807. Ruckholt, 1808. 8.

¶ *Wanderlich's* Versuch einer medicinischen Topographie der Stadt Sulz am Neckar. Tübing. 1809. 8.

¶ *Z. Wertheim's* Versuch einer medicin. Topographie von Wien, 1810. 8.

¶ *G. F. Ehrhart's* physich-medicinische Topog. der Stadt Memmingen, 1813. 8.

¶ *J. T. C. Bernstern's* Topographie von Neuwied, in dessen kleinen medicinischen Miscellen. Erf. 2. M. 1814. 8.

‡ *Menuret's* Essais sur l'histoire Médico-topographique de Paris. Par. 1805. 8.

§ *Murat's* Topog. physique et medicale du territoire d'Aubou. Paris, 1805. 8.

¶ *Remarks* on the frequency and fatality of different diseases. Lond. 1809. 8.

¶ *Hufeland's Journal*, Vol. XXIII. No. 1.

** *General View of the Natural History of the Atmosphere*. Edinb. 1808. 8.

†† *Hufeland's Journ.* B. 35. St. 4.

‡‡ *Jahrbücher der deutschen Medicin*. B. 1.

§§ *Abhandl. der phys. Med. Soc. in Erlangen*, B. 1.

|| *Mélanges d'histoire naturelle, de physique et de chimie*. Vol. I.—III. Paris, 1807. 8.

¶¶ *Des allendations d'hiver et d'été*. Paris, 1806. 8.

*** *Letters* addressed to H. R. H. the Duke of Kent, on Consumption. Lond. 1814. 8.

considered the too dry air of our apartments as the cause of phthisis. *C. C. Haberte** subjected the whole of meteorology to a new examination, in which also an important influence on the constitution of the atmosphere was ascribed to its electrical relations. But his attempt to establish meteorology on a sure basis failed, like all those which preceded it. The influence of the moon on the progress of diseases, was newly confirmed by *A. Trauzieri*† in a case of asthma. What was formerly ascribed to the constitution of the atmosphere, was referred by *F. L. P. Cerutti*‡ to the soil and its exhalations. The autumnal constitutions of several years was described by *G. F. Kletten*,§ under the ancient appellation of atrabilious.

Upon the influence of the passions on the production of disease, we received important contributions, besides others, from *H. J. Mortesau*,¶ and especially from *M. A. Petit*,¶¶ in which the influence of the French revolution upon the health was admirably developed. Among the German writings upon this subject, that of *J. G. E. Maass*** deserves to be mentioned. The oration of *Schiferli* is insignificant.††

The agency of intestinal worms, as a cause of disease, was examined more completely and scientifically than heretofore. At the head of the works on this subject stands *K. A. Rudolphi's* classical production.‡‡ Besides other things, there is proved in it, that worms do not perforate the intestines, and that they are spontaneously generated in the body. *N. L. Brera's* work§§ also contains interesting observations, with several untenable opinions. *J. Reinlein*|| made some insignificant observations on the natural history of the common tape-worm, falsely called *Taenia lata*. The real *Taenia lata* was determined by *Bremser*¶¶ to be the botryocephalus of *Rudolphi*. *H. K. L. Lüderssen**** determined the hydatids more accurately, and de-

* *Meteorologisches Jahrbuch*. Th. 1, 2. Weimar, 1801, 1811. 8. *Meteorologische Hefte*. St. 1, 2. Weimar, 1810, 1811. 8.

† *Hartel's* Neues Journ. der Ausland. Literatur. B. 9. St. 2.

‡ *Collectanea de telluris in organismum animalem actibus*. Lips. 1814. 4.

§ *De constitutione morborum atrabiliorum*. Witteb. 1803. 4.

¶ *Traité de l'influence des passions sur la santé*. Par. 1803. 8.

¶¶ *Essai sur la médecine du coeur*. Lyon. 1806. 8.

** *Versuch über die Leidenschaften*. Thl. 1, 2. Halle, 1807—1808. 8.

†† *Rede über den Einfluss der Gemüthsbewegungen auf Gesundheit und Lebensdauer*. Bern, 1808. 8.

‡‡ *Entozoorum s. vermium intestinalium historia naturalis*. Vol. I. II. Amst. 1805, 1810. 8.

§§ *Memorie fisico-mediche sopra i principali vermi del corpo umano*. Crema, 1811. 4.

|| *Animadversiones circa ortum etc. Taeniae latae*. Viennae, 1811. 8.

¶¶ *Salzb. med. Zeit.* 1812. B. 2. S. 237.

*** *Diss. de hydatidibus*. Gott. 1808. 8.

scribed the accephalocystis, almost the simplest of animals. The Hydatid finna was excellently described by K. Himly,* and L. de Carro furnished some recent information concerning the Filaria medinensis.†

Urinary calculi, their causes and symptoms were investigated by Ritter ‡ and Th. Egan. § The former tried muriatic acid, and the latter shewed that an excess of acid certainly contributed to the generation of urinary calculi. W. Brande || endeavoured to shew, that uric acid predominated in nephritic calculi, and that the phosphoric acid was not produced until the stone had fallen into the bladder. The inquiries of Moscati and Allemanni ¶ furnished new results, in regard to the composition of urinary calculi. They found magnesia and silice. The latter was also found by Würzer. **

Mare †† and Kopp †‡ instituted inquiries into the spontaneous combustion of living bodies. The most recent case narrated by Filleau §§ requires to be more accurately examined.

In regard to special pathology, many attempts were made to explain the general theory of fevers, but they only furnished new proofs that it is a stumbling-block to the human understanding. Jos. Giannini's text-book, || is insignificant as it is, certainly deserves to be preferred to the absolutely useless production of Reich, ¶¶ in which materialism, without limitation, performs the principal part, and the essence of fever is made to consist in altered secretion and excretion. A purely chemical theory, on the preponderance of oxygen, was advanced by J. W. A. Frowein, *** and also by J. F. Ackermann, ††† although useful ideas concerning the accumulation and exhalation of the imponderable substances (Aura oxygenea, Ackerm.) occur

* Hufeland's Journ. B. 29. St. 6.

† Hufeland's Journ. B. 27. St. 5, 6.

‡ Hufeland's Journ. B. 25. St. 2.

§ Medic. and Phys. Journ. N. 90—94. Samml. für prakt. Aerzte, B. 24.

S. 552. f.

|| Harle's Neues Journ. der Auslind. Lit. B. 10. St. 1.

¶ Memorie della soc. ital. Vol. XIII. p. 2.

§ Gehlen's Journ. B. 2. S. 267.

¶ Salz. med. Zeit. 1809. B. 2. S. 235. f.

¶ Ausführende Darstellung und Untersuchung der Selbstverbrennungen.

Frkt. a. M. 1811. 8.

¶ Journ. de Sedillot, Tom. XLVI. Mars.

¶ Della natura delle febbri. Vol. I. II. Milano, 1805, 1809.

¶ Erläuterung der Fieberlehre, B. 1, 2. Berl. 1805, 1806. 8.

¶ Was sind Fieber? Elberfeld, 1806. 8.

†† De construentis, cognoscendis, et curandis febribus. Heidelberg, 1809. 8.

as causes of aggravation. Similar ideas, concerning the origin of the cause of fevers, were already advanced by F. C. Rüdigger. * G. F. Parrot † considered fever as a calorific process, and demonstrated the real increase of temperature of the surface in the febrile heat. The doctrine of fever was, according to the principles of the theory of excitability, given by E. Horn; ‡ and A. Henke explained the doctrine of crises. § J. A. Walther's explanation of metastasis || is insignificant; but that of Fr. Hufeland, ¶ concerning general and local diseases, is very interesting. A good and learned work by J. H. Rahn ** was published after his death.

Upon intermittent fever we have had a good practical work from J. Richard. †† Kleefteld †‡ described the remarkable conversion of an intermittent epidemic into a partially remittent typhoid fever; and Minderer §§ described the true hemitritaeus, as it occurs in the southern provinces of Russia. Audouard's theory of intermittent fever || is as little to be commended as his method of cure.

Minderer made some interesting observations on the plague, ¶¶ on which subject Larrey *** has also made some observations, and C. Mayer given a theory. ††† The last shewed the coincidence of the plague of the East with that of the West, or the yellow-fever, which had indeed ceased to rage in Europe, but of which sporadic traces still occurred. ††† To the later writings of German physicians, who considered the nature of this disease from the observations of others, belong the treatises of C. F. Fischer, §§§

* Diss. de natura et medela morborum nervicorum. Tubing. 1806. 4.

† Ueber den Einfluss der Physik und Chemie auf die Arzneykunde: Decap., [1807.] 4.

‡ Anfangsgründe der med. Klinik. Abth. 2. Erf. 1807. 8.

§ Darstellung und Kritik der Lehre von den Krisen. Nürnberg. 1806. 8.

|| Hufeland's Journ. B. 22. St. 2.

¶ Hufeland's Journ. B. 25. St. 1.

** Fieberlehre. Zürich, 1814. 8.

†† De insidiosa quarundam febrium intermitentium et remittentium natura.

Lond. 1807. 8.

‡‡ Hufeland's Journ. B. 29. St. 5.

§§ Hufeland's Journ. B. 26. St. 2.

|| Nouvelle thérapeutique des fièvres intermittentes. Paris, 1812. 8.

¶ Hufeland's Journ. B. 24. St. 2.

¶¶ Denkwürdigkeiten, S. 96—129.

††† Specimen practicum de remediis efficacissimis in morbis contagiosis et pestentialibus. Viennae, 1806. 8.

††† Larrey's Denkwürdigk. S. 140. J. C. Reuand in Hufel. Journ. B. 24.

St. 2.

§§§ Hufeland's Journ. B. 21. St. 4.

C. F. L. Wildberg, * an anonymous publication at Vienna, † A. F. Marcus's contributions, ‡ and the works of K. Wolfart, § J. H. Kopp, || and J. J. de Bartoldi. ¶ Of much more importance was the information furnished by those who saw the disease themselves; Fr. Torrigiani, ** L. Valentin, †† Dalmat, ‡‡ B. Rush, §§ and especially A. V. Humboldt, ||| and A. M. T. Savarese. ¶¶

The nervous or typhous fever, aggravated by almost continual wars in Europe, and constituting a true *Pestis Bellica*, was so repeatedly investigated during this period, its nature so variously determined, and its method of cure so differently laid down, that we must necessarily be convinced that the epidemics were not only perfectly different at different times, but that the same epidemic varied in different countries.

The *Pestis Bellica* appeared in 1805, during the campaign of the French in Austria, after the battle of Austerlitz, upon which Larrey *** has given us some not uninteresting observations. Upon the epidemic typhus which accompanied the war of 1806-7, so unfortunate for Germany, Charrel ††† and Fr. Jahn ††† made some practical observations. The former found ipecacuan, the latter calomel, particularly serviceable. P. G. Jördens §§§ enriched the symptomatology of the disease with some valuable additions. Nor should we overlook M. v. Willich's ||| observations on the appearance of that fever at Rugen. C. W. Hufeland's valuable remarks ¶¶¶ deserve particu-

* Ueber das gelbe Fieber. Berl. 1805. 8.

† Beschreibung des gelben Fiebers für österr. Aerzte und Wundärzte. Wien, 1805. 8.

‡ Magazin für specielle Therapie, B. 2. St. 1.

§ Das Wesen des gelben Fiebers. Berl. 1805. 8.

|| Versuch einer Darstellung des gelben Fiebers. Frkf. am M. 1805. 8.

¶ La febbre gialla. Venez. 1805. 8.

** Della febbre gialla. Pisa. 1805. 8.

†† Abhandl. über das amerikanische gelbe Fieber. Aus dem Franz. von K. C. G. Arnold. Berl. 1806. 8.

†† Recherches historiques et médicales sur la fièvre jaune. Paris, 1805. 8.

‡‡ Inquiry into the various sources of the usual forms of summer and winter diseases in the United States. Philadelphia, 1805. 8. Hufeland's Journ. B. 22.

St. 3.

||| Voyage en Amérique, Vol. III. p. 750. Harles Jahrb. B. 2. S. 8

¶¶ De la fièvre jaune. Naples, 1809. 8.

¶¶¶ Denkwürdigk. S. 279.

††† Journ. de Seillot, Tom. XXXIII. Oct.

§§ Hufeland's Journ. B. 23. St. 1.

||| Hufeland's Journ. B. 23. St. 1.

¶¶ Hufeland's Journ. B. 20. St. 6.

¶¶¶ Hufeland's Journ. B. 26. St. 5.

larly to be read. It was in the same year that H. S. Jackson * observed in Gibraltar that inflammation of the brain often supervened in typhus. The numerous complications which occurred in this epidemic (in Germany, 1806-7) were detailed by A. F. Hecker, † G. A. Spangenberg, ‡ and F. J. Wittmann, § The insidious form which often occurs was particularly noticed by P. L. Müller. ||

The war between France and Austria in 1809 produced a similar disease, and we are indebted to J. F. v. Hildenbrand ¶ for the most striking observations, the most impartial and complete inquiry into its nature, and the best directions for its cure and prevention. Paul Kolbany's remarks ** also deserve to be noticed with approbation, on account of good pathological observations, and more especially the application of Currie's practice. On the contrary, F. C. Schlütter's remarks on the appearance of the epidemic at Weimar are insignificant. ††

In 1811, A. F. Marcus ‡‡ published his theory of the identity of inflammation of the brain with typhus, which, however, he asserted, he had conceived and established in 1806. But neither the ill-managed cases, nor the asserted success of his method of cure, were capable of deceiving impartial judges. E. Horn §§ ascertained with some precision the difference between typhus and inflammation of the brain; and it was mere prejudice which made Marcus consider Horn's observation of accumulation of water in the ventricles of the brain after death, from nervous fever, ||| as a proof of the truth of his theory. ¶¶

In the depopulating epidemic which accompanied the campaigns of 1813 and 1814, and which in some places had undergone a total change in its nature, Marcus's theory obtained occasionally more support. He considered as a proof of its truth, the appearances discovered by dissection in the

* Observations on the epidemic diseases which lately prevailed at Gibraltar, 1806. 8.

† Ueber die Nervenfeber, welche in Berlin 1807. herrschten. Berlin, 1808. 8.

‡ Horn's Arch. 1809, B. 2.

§ Die neuesten am Rhein herrschenden Volkskrankheiten. Mainz, 1811. 8.

|| Abhandl. über das schleichende Nervenfeber. Duisburg, 1808. 8.

¶ Ueber den ansteckenden Typhus. Wien, 1810. 8.

** Bemerkungen über den ansteckenden Typhus, der 1809-10 in Pressburg herrschte. Pressb. 1811. 8.

†† Hufeland's Journ. B. 22. St. 5.

‡‡ Ephemeriden der Heilkunde, B. 1. Hft. 1.

§§ Archiv, 1812. Sept.

||| Archiv, 1810. B. 2. S. 267.

¶¶ Ephemer. der Heilkunde, B. 1. Heft. 2.

body of *J. P. Ritter*, who died of the typhus, because the vessels of the brain were distended with blood, the medullary part red, and water collected on the basis of the skull. * His opponent, *A. Dorn*, † set out with the principles of the theory of excitement, and, therefore, could not obtain any support from impartial judges. Still less to be approved was the controversial production of *P. J. Wintz*, ‡ because in it the liver was just as erroneously assumed as the seat of the disease, and the reasonings about its nature were still more unintelligible. More successful, and less partially written than usual, was *Marcus's* next work. § Out of 113 typhous patients he lost only 12. *A. Rischlaub's* controversial pamphlet ¶ is entirely devoid of interest for science, and merely a monument of personal enmity. Equally reprehensible is *Marcus's* reply. ¶ Another production of the same kind, by *M. W. Schneemann*, ** is very poor. The author will not even admit the pestis bellica to be typhus; therefore the reply by *Stranz* is well founded. †† *P. Reuss* ‡‡ and *Speyer* §§ agree entirely with *Marcus*, and the physicians of Mayence, *Wittmann* and *Renard*, acknowledge the inflammatory nature of the pestis bellica. ¶¶ *P. K. Hartmann* ¶¶ and *J. J. Reuss* *** likewise agree that the disease is preceded by an inflammatory process in the mucous membranes, which, according to the latter, extends to the tunica arachnoidea of the brain, and, according to the former, generates contagion, when the mucous membranes are affected with gangrene. But the dissections on which *Reuss* relies were found by *E. Horn* ††† and *N. Friedreich* ‡‡‡ to be quite

* *A. F. Marcus* über den jetzt herrschenden ansteckenden Typhus. Bamh. 1813. 8.

† Bemerkungen über die Schrift des *D. Marcus*, den herrschenden contagösen Typhus betreffend. Bamh. 1813. 8.

‡ Berichtigung einiger Sätze in der Schrift des *Hrn. Marcus* über den Typhus. Bamh. 1813. 8.

§ Beleuchtung der Einwurfe gegen meine Ansichten über den herrschenden ansteckenden Typhus. Bamh. 1813. 8.

¶ An *A. F. Marcus* über den Typhus. Landsh. 1814. 8.

** An *A. Rischlaub* über den Typhus. Bamh. 1814. 8.

†† Beiträge zur Erkenntnis und Cur des ansteckenden Typhus. Bamh. 1814. 8.

‡‡ An *M. W. Schneemann* über den ansteckenden Typhus. Bamh. 1814. 8.

§§ Bemerk. über den ansteckenden Typhus. Würzb. 1814. 8.

¶¶ Ephemeriden der Heilk. B. 3. St. 9.

¶¶ Salzbr. medic. Zeit. 1814. B. 3. S. 550.

*** Die Theorie des ansteckenden Typhus. Wien, 1812. 8.

††† Das Wesen der Exantheme. Erster Theil. Das Fleckenfieber oder Kriegspest. Aschaffenburg, 1814. 8.

‡‡‡ Erfahrungen über die Heilung des ansteckenden Typhus. Beel. 1814.

§§§ Ueber den Typhus und die entzündungswidrige Methode dagegen. Würzb. 1814.

otherwise. Often there was no obvious deviation from the natural state, often the vessels of the brain were full of blood, but very rarely was there any mark of inflammation. The insufficiency of dissection, to ascertain the nature of typhus, was explained in a special treatise by *N. Friedreich*. * *E. Horn* † also made some valuable observations concerning the duration of the period of infection, and upon the transition of typhus into apoplectic fever. *C. A. Wienhold* ‡ refuted admirably the pretended inflammation, by proving that the state of the nerves in the bodies of those who died of typhus was exactly the reverse of what it is where the nerves are inflamed. In a practical point of view, *Hufeland's* essay on this pestilence § deserves particular notice. Also *G. v. Wedekind* ¶ has published one of the most important and impartial inquiries into the nature of the disease. He assumes in typhus an erysipelatous inflammation. *J. G. G. Jörg* ¶ deserves to be read, on account of the investigation of the influence of moral causes upon the disease. *S. Wolf* ** describes the measles eruption in the beginning, and notices the muscular debility which is here truly remarkable. *J. F. Ackermann* †† has written entirely in the spirit of his well known theory. *G. A. Richter* ‡‡ has strikingly delineated the dreadful form of the disease in Torgau, during its siege. The productions of *Eisenlohr* §§ and *G. Wedemeyer* ¶ are insignificant. *Wacker* ¶¶ advanced views derived from the new philosophy, without any use, and the same thing had been previously done by *H. A. Göden*. *** Similar nonsense, delivered with equal pretensions, is to be found in *K. Wolfart's* newest

* Werth der Leichenöffnungen zur Bestimmung: Typhus sey Hirnentzündung. Würzb. 1814. 8.

† Archiv, 1813. Mai—Dec.

‡ Kritische Blicke auf das Wesen des Nervenfiebers. Dresd. 1814. 8.

§ Journ. B. 26. St. 6.

¶ Blicke in die Lehre von den Entzündungen und von den Fiebern überhaupt, von den Gehirn-Entzündungen und dem ansteckenden faulen Nervenfieber insbesondere. Darmstadt, 1814. 8.

** Das Nervenfieber im J. 1813. Berl. 1814. 8.

†† *Hufeland's* Journ. B. 99. St. 2.

‡‡ Von der Natur des ansteckenden Typhus. Heidelb. 1814. 8.

§§ Medicinische Geschichte der Belagerung und Einnahme der Festung Torgau. Berl. 1814. 8.

¶¶ Ueber die Natur und Behandlung des epidemisch-contagösen Nervenfiebers. Carlsruhe, 1814. 8.

*** Ueber den ansteckenden Typhus. Halberstadt, 1814. 8.

††† Ueber den ansteckenden Typhus und die herrschenden Krankheiten. Dillingen, 1814. 8.

§§§ Ueber Natur und Behandlung des Typhus. Berl. 1811. 8.

theory of typhus; * where, besides other things, the (invisible) nervous glands are said to be the seat of the matter of pestilence, and the greatest light upon the subject is expected from mesmerism, as it is called.

The theory of inflammation did not acquire, during this period, any remarkable elucidation or addition, except *Bened. Hofrichter's*† chemical explanation from the increase of carbon. The opinion that the capillary vessels, excited to arterial action, were the seat of inflammation, was almost general, when now *Marcus*‡ advanced the opinion, that inflammation is "the seizing of the electrical moment in the dimensions;" which figurative expression must be thus translated: The arterial system, on account of its dendritic expansion, resembles positive electricity, but the electricity disappears in the indifferent capillary vessels and in the absorbents; that is, in the reproductive system, and yields to simple attraction = Magnetism. Hence it is, that when the capillaries enter into the sphere of action of the arteries; or, what is the same thing, when the activity of the arteries communicates itself to the capillaries, the electricity is converted into magnetism. Now, in so far as irritability or contractility predominates in the arteries, is inflammation always a contraction of the arteries. This is an exposition of *Marcus's* theory, by which he is made to coincide with *P. F. Walther*§ and *Newmann*||. But *Marcus* will not admit of this coincidence, and more recently¶ abides by his metaphorical expressions.

When we read *Röschlaub's* pretended explanation of inflammation, ** we seem to be carried back to the latter half of the sixteenth century. "The fiery life plays into the material corporality, and endeavours to form a proper body to itself." As little common sense will be found in *H. A. Göden's* theory,†† according to which, the inflammatory nature consists in the fierceness, in the unbounded egotism of the irritable moment, and in the corruption and acrimony of the matter.

More interesting are *F. v. P. Grutthuisen's* microscopical in-

* Neues Asklep. 1819. Hft. 2.

† Versuch über das Entzündungsfeber und die Entzündung. Bresl. 1806. 8.

‡ Entwurf einer speziellen Therapie. Thl. 1, 2. Nürnberg. 1807, 1810. 8.

§ Physiologie, B. 2. Abh. aus dem Gebiete der prakt. Medicin. Landsh. 1810. 8.

|| Hufeland's Journ. B. 25. St. 4.

¶ Ephemer. der Heilkunde, B. 2. Hft. 3.

** Magaz. zur Vervollk. der Heilk. B. 10. St. 2, 3.

†† Die Theorie der Entzündung. Berl. 1811. 8.

quiries, * by which the seat of inflammation is proved to be in the capillary vessels; and *P. J. Horsch's* thoughts,† in which *Marcus's* theory is made more intelligible. *J. Meyer* published a learned and profound history of inflammations.‡ The latest work upon this subject, by *K. H. Dönati*,§ does not bring us one step nearer to its knowledge. The capillary vessels are here called the plastic system, in which the inflammation has its seat, and is perverted for the production of new matter. The causes of inflammation are divided into quantitative and qualitative, and among the latter, contagion and miasmata are enumerated.

Foreigners confined themselves more to the phenomena and consequences of inflammation, as *J. Thomson*,|| and *A. J. Tristata*;¶ or, like *F. J. V. Broussais*,** they continued to consider the capillary vessels to be the seat of inflammation, and endeavoured to elucidate the nature of individual inflammations by morbid dissections.

Some good remarks on the inflammation of the viscera of children were made by *C. F. Harles*.†† He was also induced, by the translation of *Brera's* essay on the inflammation of the spine,‡‡ to collect several observations on that subject. §§ But *Baynton's* latest work,||| though, indeed, more of a surgical nature, could not be known to him.

Inflammation of the brain was a frequent subject of investigation, not only because it often occurred along with the pestis bellica, and was even confounded with it, but because it not unfrequently terminates in an accumulation of water in the ventricles of the brain, or between its membranes. The morbid conditions of the glands and lymphatics, under which collections of lymph or serum take place in the brain, were investigated by the brothers *Wenzel*.¶¶ An anonymous writer published a valuable contribution to the diagnosis of hydrocephalus, by dis-

* Salz. medic. Zeit. 1811. B. 2. S. 299.

† Annal. der clinicisch-technischen Schule, Hft. 2. Rudolst. 1810.

‡ Kritische Geschichte der Entzündungen. Th. 1. Berl. 1812. 8.

§ De inflammatione sphaerismorum Lib. 1. Hal. 1814. 8.

|| Lectures on Inflammation. Edinb. 1815. 8.

¶ Delle malattie del cuore. Vol. I.—III. Bologna. 1811, 1812.

** Histoire des phlegmasies ou Inflammations chroniques. Tom. I. II. Paris, 1808. 8.

†† Einige praktische Bemerkungen über innere Entzündungen bey Kindern. Nürnberg. 1810. 4.

‡‡ Della rachialgie; Atti dell' acad. di Livorno, Vol. I.

§§ Jahrbücher der deutschen Med. u. Chir. B. 2. Hft. 2.

||| Account of a successful method of treating diseases of the spine. Lond. 1812. 8.

¶¶ Bemerkungen über die Hirnwassersucht. Tübing. 1806. 4.

tinguishing it from symptoms produced by worms. * *A. Mathey* and *Laennec* do not conceal the difficulty of the diagnosis, especially in regard to the state of the pupil. † *F. W. Neggenfind*'s observation of the membrane-like unfolding of the brain in a case of chronic, but not congenital hydrocephalus, ‡ was interesting; and confirmed by *Rasori*. § *J. C. Cheyne* || rendered the subject more intricate, as he considered cases of accumulation of blood as belonging to this disease. *L. Formey* ¶ gave an excellent history of this affection, founded on experience, in which several signs hitherto neglected are pointed out. *Heineken*'s essay ** deserves to be read; and also that of *Jo. v. Portenschlag-Ledermeyer*; †† although the latter extends his idea of the disease too far, and includes every case in which fluid is found in the ventricles on dissection. The diagnosis is enriched by the remarks of *E. Löbenstein-Lübel*, ‡‡ *W. F. Dreyssig*, §§ *J. C. Smyth*, ||| and *J. Milman Coley*. ¶¶ *M. Baillie*'s observation of a chronic hydrocephalus, in a man 56 years old, in whom there was no other essential symptom than palsy of the limbs, is important. ***

No disease of the human body set so many pens in motion, during this period, throughout the civilized world, as the *angina membranacea*, almost universally denominated by its English name *Croup*; not merely because it has become more common, but because the tyrant of the world allotted an extraordinary prize for the best treatise on this disease, by which he had lost one of his favourites. This was done on the 4th of June 1807. Before this, *A. H. F. Gutfeldt* ††† had given a correct

* Edinb. Med. and Surg. Journ. Vol. I. 1806. p. 52.

† Journ. de Corvisart, 1806. Juin.

‡ *Hufeland's* Journ. B. 24. St. 1.

§ Giorn. della soc. med. di Parma, Vol. II. N. 4. *Harle's* Journ. der ausländ. Lit. B. 10. St. 1. S. 186.

|| Versuch über den acuten Wasserkopf. Aus dem Engl. von A. Müller. Bremen, 1809. 8.

¶ Von der Wassersucht der Gehirnhöhlen. Berlin, 1810. 8.

** *Hufeland's* Journ. B. 52. St. 5.

†† Ueber den Wasserkopf. Wien, 1812. 8.

‡‡ Die Erkenntnis und Heilung der Gehirn-Entzündung, des innern Wasserkopfes und der Krampfkrankheiten im kindlichen Alter. Leipz. 1813. 8.

§§ Handwörterbuch der medicinischen Klinik, B. 5. Th. 1.

||| Treat. on Hydrocephalus or Dropsy of the Brain. Lond. 1813. 8.

¶¶ A Practical Treat. on the Remittent Fever of Infants, with remarks on hydrocephalus internus. Lond. 1815. 8.

*** Medic. Transact. publ. by the College of Physic. in Lond. Vol. IV.

P. 300.

††† *Hort's* Archiv, 1805. B. 2. Heft. 1.

view of the disease as being an inflammation of the mucous membrane of the trachea, followed by exudation of lymph. *J. C. Desessart*, * on the contrary, opposed the inflammatory nature of the affection, and considered it to consist only in a stoppage of the mucous follicles and glands; and in this opinion he was supported by *J. C. F. Caron*. † By the observations published by *G. Vicesseux*, ‡ it appeared that very different states of the glottis and trachea were confounded, as he was acquainted with a nervous or spasmodic, a chronic and a catarrhal croup. This idea, which *Ferriar* had previously adopted, was more developed by *Isaac*. § Now appeared *J. H. F. Autenrieth's* excellent observations on this disease, || in which the relation between *Millar's* asthma and the spasmodic form of the disease was explained, and it was also shewn that death was sometimes the consequence of the mere palsy of the parts affected. On the contrary, *J. Cheyne* ¶ and *Latour* ** considered the real croup as a true inflammation.

The committee appointed by the French government for settling the prize-question, published previously the state of our knowledge regarding the disease at that time. †† The first works which appeared in Germany after the prize-question was given out, by *J. W. Hopff*, ‡‡ and the translation of an earlier English publication, §§ were not very important. More valuable was the remark of *Michaelis*, || that, in reality, as had been taught by *Autenrieth*, and denied by *Wickmann*, the membranous angina is often complicated with, or degenerates into *Millar's* asthma. *A. F. Marcus's* great pretensions ¶¶ accorded very ill with the little addition which his work made to our pathological or therapeutical knowledge of the disease. He called it a catarrh, and considered it to consist essentially in in-

* Mém. sur le croup. Paris, 1808. 8.

† Traité du croup aigu. Paris, 1808. 8.

‡ Journ. de Corvisart, 1806. Dec. p. 422.

§ Hecker's Annalen, B. 3. S. 481.

|| Versuche für die prakt. Heilkunde. Tübing. 1807. 8. Th. 1.

¶ Pathology of the membrane of the larynx and the bronchia. Edin. 1809. 8.

** Manuel sur le croup. Paris, 1808. 12.

†† Samml. von Beobachtungen und Thatsachen, die die häutige Bräune betreffen. Uebers. v. M. M. Freidländer. Tübing. 1808. 8.

‡‡ Abhandl. über den Croup. Hannau, 1808. 8.

§§ Fr. Home's Untersuchungen über die Natur, Ursache und Heilung des Croup. Mit Vorrede und Anmerkungen von J. A. Albers. Bremen, 1809. 8.

||| *Hufeland's* Journ. B. 28. St. 6.

¶¶ Ueber die Natur und Behandlungsart der häutigen Bräune. Hamb. 1810. 8.

inflammation of the glottis and trachea. A. F. Hecker laid claim to the praise of having anticipated *Autenrieth's* views,* and maintained that the disease was sometimes spasmodic, in opposition to *Formey*, who had denied it.† After this appeared the excellent, almost classical treatise, by W. Sachsé,‡ in which learning, experience, and acuteness, are equally conspicuous. *Heim*, who had criticised *Marcus's* essay,§ drew upon himself, by some opinions, the observations of the acute J. A. Albers.|| In this reply, it was doubted that *Heim* was acquainted with real croup, as *Formey* had previously doubted that *Autenrieth* had observed the real disease. Albers also assured us that the exudation of lymph was not always considerable, and that, therefore, the name of angina membranacea was to be rejected. P. J. Hirsch¶ found, in the epidemic which he observed, the symptoms at first catarrhal, then so spasmodic, that the form of *Millar's* asthma appeared, and lastly, perfectly inflammatory. Like *Daval*, he excited the disease artificially in swine, by injecting diluted sulphuric acid, and also by caustic alkali. Almost similar views regarding the irregular form of the disease were advanced by E. L. Löbenstein-Löbel.** But the distinction from *Millar's* asthma is drawn too sharp to be quite correct. The essay of E. W. Wallich†† is very insignificant; on the contrary, D. Neumann's treatise deserves great praise, especially on account of the parallel between the disease and phthisis trachealis.‡‡

In the beginning of 1812, the report of the French committee, upon the best answer to their prize-question, appeared. Among 79 answers, which were sent in and examined, the prize was conferred upon two treatises by *Jurine* and J. A. Albers.§§ *Jurine* considers the disease to consist essentially in a catarrhal affection of the mucous membrane, caused by an

* Von den Entzündungen im Halse. Berl. 1809. 8.

† Horn's Arch. 1809. B. 5. Heft. 2.

‡ Das Wissenschaftliche über die häutige Bräune. Lubeck. 1810. 8. B. 2. Hannover. 1812.

§ Horn's Archiv, 1810. B. 1. Heft. 2.

|| Kritische Bemerkungen gegen eine Recension des Hrn. Heim, etc. Bremen, 1810. 8.

¶ Annal. der klinisch-technischen Schule, Heft. 2.

** Erkenntnis und Heilung der häutigen Bräune, des *Millar'schen* Asthma und des Keichhustens. Leipz. 1811. 8.

†† Dringendes Wort über die jetzige gefährliche Kinderkrankheit, die häutige Bräune. Wien. 1811. 8.

‡‡ Horn's Archiv, 1811. März.

§§ Rapport adressé à S. E. le Ministre de l'intérieur sur les ouvrages envoyés au concours sur le croup. Paris, 1812. 8.

inflammatory stimulus, and combined with spasms. It attacks sometimes the larynx, where it is more acute, and sometimes the mucous membrane of the trachea, where it is more chronic. There is a simply spasmodic croup, which intermits, and is either *Millar's* asthma, or constitutes a transition to it. He farther derives the disease from catching cold, and ascribes its increasing frequency to the dissemination of the phlegmatic constitution. In *Albers's* treatise, the inflammatory nature of the disease is assumed, but a double form is admitted, the purely inflammatory, and the nervous. The spasm in croup is said to be maintained by the inflammation, and commonly alone interrupts the breathing, and usually intermits. Hence *Albers* will not agree to the marked diagnosis between *Millar's* asthma and the croup, nor does he consider the mechanical obstacle of the exuded lymph or false membrane as the common cause of death. Of the treatises, of which honourable mention was made in the report of the committee, two have been published by G. Vieussens* and F. J. Double.† The views of the former almost agree with those of *Albers*, and are the result of great experience; the latter does not write from much personal observation, but has produced a learned work, in which, however, the periods of the disease are too nicely distinguished. In the seventh volume of the Dictionnaire des Sciences Medicales, *Royer-Collard* inserted a good treatise on this subject, a German translation of which *Albers* enriched with excellent notes.‡ Two other works, one of which was not received in competition for the prize, and the other is not even mentioned in the report, deserve little notice. The first, by C. F. Cleron,§ refers only to a recommendation of tracheotomy, and of ammonia as the most certain remedy in croup. Some other observations,|| and a polemical pamphlet by the same author,¶ deserve no notice. The second, by J. Bonnafox de Mallet,** represents the disease as a consequence of the coagulation of albumen. A better work was published by A. Raveaneau.†† Also the observations of *Daney*,‡‡ *Lejeune*,§§

* Mémoire sur le croup. Paris, 1812. 8.

† Traité du croup. Paris, 1811. 8.

‡ Abh. über den croup. Aus dem Franz. Hannover. 1814. 8.

§ Programme d'un prix relatif à la trachéotomie dans le traitement du croup. Paris, 1812.

|| Journ. de Sedillot, Tom. XLV. Nov.

¶ Réfutation du mémoire de la clinique chirurgicale de M. Piletan sur la broncotomie. Paris.

** Mémoire sur le croup. Paris, 1812.

†† De la Phlegmasie trachéale aigue. Paris, 1809. 8.

‡‡ Journ. de Corvisart, 1811. Févr.

§§ Journ. de Corvisart, 1812. Oct.

Lepine, * *Martin*, † *Mercier*, ‡ *Salmade*, § and *Saissy*, ¶ deserve to be read. The work of *Giraudy* is almost below criticism. ¶ In Germany, the distinction drawn by *Wichmann* between croup and *Millar's* asthma was rendered more doubtful, especially by *C. P. Fischer* ** and *A. Henschel*, †† although *A. A. W. Eccard* ‡‡ rested a great deal upon the inflammatory nature of the disease. *Eichenmayer* §§ has also made some good observations, in reference to *Autenrieth's* ideas.

The true inflammation of the larynx was observed in the body of Dr *Pitcairn* by *Baillie*, || and *Farre* ¶¶ published at the same time some observations regarding it.

Among the other phlegmasiæ, *J. Davis* *** and *A. F. Testa* †† published some important observations on the diseases of the heart. The latter described particularly the chronic form and its consequences, and also the inflammation of the vena cava. Examples of this inflammation were described by *Dav. Dundas* ††† and *J. Russell*, §§§ *A. F. Marcus* |||| supposed he had discovered pathognomonic signs of the disease in the feeling, as if the blood escaped from the heart into the cavity of the breast, and in the coldness of the limbs. The same author ¶¶¶ represents inflammation of the spleen as not an uncommon disease, occurring under the form of vomiting of blood, and sometimes returning periodically.

Upon puerperal fever, which was almost universally considered as an inflammation of the peritoneum, *J. A. Schmidt* ||||

- * Journ. de Sedillot, Tom. XXXVII. Févr.
- † Annal. clin. de Montpellier, 1810. Juin.
- ‡ Journ. de Sedillot, Tom. XLIII. Mars.
- § Journ. de Sedillot, Tom. XXXII.
- ¶ Journ. de Sedillot, Tom. XXXIX. Sept.
- ** De l'angine trachéale. Paris, 1811. 8.
- *** *Hufeland's* Journ. B. 37. St. 1.
- †† Diss. de schematis Millari et anginae polyposæ diversitate. Wratisl.
- ††† *Horn's* Archiv, 1807. B. 1. Heft. 1.
- §§ Beobachtung und Heilung der häutigen Bräune. Nürnberg, 1812. 8.
- || Die Epidemie des croup's zu Kirchheim. Stuttgart, 1812. 8.
- ||| Transact. of a Soc. for improvement of Med. and Chirurg. knowl. Vol. III. p. 276. s. Medical and Phys. Journ. 1809. June.
- ¶¶ Med. Chirurg. Transact. publ. by the Med. and Chirurg. Soc. of Lond. Vol. III. p. 84.
- *** Inquiry into the symptoms of carditis. Lond. 1808.
- †† Deile malatie del cuore. Vol. II.
- ††† Med. Chir. Abhandl. der Med. Chirurg. Gesellsch. in London, übersetzt von Osann. Berl. 1811. 8.
- §§§ Edinb. Med. and Surg. Journ. No. 37. 1814. Jan.
- |||| Ephemer. der Heilk. B. 2. Heft. 1.
- ¶¶¶ Ephemer. der Heilk. B. 3. St. 1.

er * made some not very important observations. The cases described by *Horn* † were purely inflammatory. Also *L. J. Boer's* observations, ‡ both upon this disease, and upon the mistaken inflammation of the uterus, deserve to be mentioned with praise. Upon an epidemic puerperal fever which occurred in Heidelberg, *F. C. Nägele* § and *C. F. Bayrhoffer* || published their observations. The form of the disease which *J. Armstrong* observed ¶ was purely inflammatory.

Upon the water canker of the lip, which occurs frequently in Old Brandenburg, and its cure by muriatic acid, we got some good observations by *Siebert*, ** and others, also good, upon the cancer of the lip in general, by *J. C. Stark*. ††

We come next to the eruptive diseases. Their general theory was treated of, usefully and acutely, by *C. W. Hufeland*, †† and also by *A. F. Marcus*, §§ but partially in regard to their inflammatory form. *D. G. Kieser* || considered them only as effects of development, an idea previously advanced in regard to the small-pox by *L. J. C. Mende*. ¶¶ Beneath all criticism is the work of *Fr. v. Dobscha*. *** For the knowledge and diagnosis of these diseases, advantage may be derived from the elaborate works of *Rob. Willan* ††† and *Alibert*, ††† and the systematic descriptions of *Suasso*, §§§ *J. Wilson*, |||| and *Th. Buteman*. ¶¶¶

Among the acute eruptive diseases, scarlatina most engaged the attention of the German physicians, both on account of its

- * *Horn's* Arch. 1808. B. 5. Heft. 1. Handbuch der medic. Geburtshilfe. Th. 2. Frkf. 2. Main, 1812. 8.
- † Archiv, 1809. B. 2. Heft. 1.
- ‡ Abhandl. und Versuche geburtshülflichen Inhalts. Bd. 2. Th. 3. Wien, 1806. s. Naturalis medicinae obstetricia libri VII. Vienna. 1812. 8.
- § Schilderung des Kindbettfiebers. Heidelb. 1812. 8.
- || Bemerkungen über das epidemische Kindbettfieber. Frkf. a. Main, 1812. 8.
- ¶ Facts and Observations relative to the fever commonly called Puerperal. Lond. 1812. 8.
- *** *Hufeland's* Journ. B. 33. St. 6.
- †† De cancro labii inferioris. Jen. 1812. 4.
- §§ Journ. B. 21. St. 4.
- || Entwurf einer speciellen Therapie, B. 3. Th. 1.
- ||| Über das Wesen und die Bedeutung der Exantheme. Jena, 1812. 4.
- ¶¶ *Horn's* Archiv, 1807. B. 1. Heft. 1.
- *** De cute et morbis cutaneis eorumque curatione. Jen. 1805. 8.
- ††† Description and treatises of Cutaneous Diseases, ord. 3. et 4. 1808. 4.
- §§§ Description des maladies de la peau, observées à l'hôpital S. Louis. Liv. 1—3. Paris, 1806—1811. fol.
- |||| Morborum exanthematicorum descript. specimen. Vol. I. II. Amst. 1809, 1810.
- ¶¶¶ Treat. on Cutaneous Diseases. Lond. 1813. 8.
- ¶¶¶ Practical Synopsis of Cutaneous Diseases. Lond. 1813. 8.

more frequent occurrence and greater danger, as on account of its form differing from earlier epidemics, *J. Stieglitz** endeavoured to shew that its greater mortality in modern times depended upon the abuse of the stimulating method of cure, and recommended the cooling treatment. In Suabia, on the contrary, the disease was treated, on account of its obviously typhous character, with stimulating remedies, and it is said successfully. † Insignificant are the observations of *J. G. Bremser* ‡ and *J. K. Gutheriet* §. More important is the distinction established between scarlatina and purpura (*Purpurfrües*) by *S. Hahnemann* ||. This difference is, however, ascribed by *G. F. C. Wendt* iadt ¶ to a degeneration of true scarlatina, and by *D. G. Kisser* ** to a variation of it. The last paper is particularly important for the diagnosis of scarlatina from petechial fever, and there is an equally interesting paper by *E. S. Heims* †† upon the distinction of scarlatina from *roseola* and *rubeola*, in which our attention is particularly directed to the peculiar smell of the perspiration. *A. Dähne* ‡‡ endeavoured to propagate entirely false views of the nature of scarlatina, as he looked upon it as a process of development for the production of a new skin, and that it was merely a kind of erysipelatous inflammation, not even succeeded by true desquamation, but that the old skin only made way for the new. Ideas of the same kind were advanced by *G. C. Reich* §§ but with greater pretensions and the perverted application of physics. At the same time he gives unqualified praise to the cooling treatment, as alone admissible in this disease. The two last mentioned papers were severally criticised by *A. F. Hecker* |||. The diversity of scarlatina, according to the difference of the existing epidemic, was explained by *E. Kletten* ¶¶. Considered

* Versuch einer Prüfung und Verbesserung der jetzt gewöhnlichen Behandlungsart des Scharlachfiebers. Hannov. 1807. 8.

† J. J. Fric descriptio morbi epidemici Münchingae grassati. Tubing. 1807. 4.

‡ Ein Paar Worte über die Scharlachkrankheit und die Mätern. Wien, 1806. 8.

§ *Hufeland's Journ.* B. 29. St. 1.

|| *Hufeland's Journ.* B. 24. St. 1.

¶ *Hufeland's Journ.* B. 27. St. 3.

** *Hufeland's Journ.* B. 34. St. 1.

†† *Hufeland's Journ.* B. 34. St. 2.

‡‡ Einige Beiträge zur Aetiologie und Kur des Scharlach-oder Hautangefiebers. Leipz. 1810. 8.

§§ Neue Aufschlüsse über die Natur und Heilung des Scharlachfiebers. Halle, 1810. *

|| *Annal.* B. 3. Heft. 4.

¶¶ De varia malignitatis ratione in febre scarlatinosa. Lips. 1811. 4.

in this point of view, the contradictions of *Stieglitz*, by *J. P. Vogler**, may be easily set aside. The method of the former gained a defender in *T. W. G. Benedict* †. The remarks of *Bleicher* are insignificant; ‡ those of *Neumann* § are better, especially in regard to the diagnosis. The observations of *J. A. Albers* || serve to adjust the cooling treatment. Lastly, we have to remark, that the scarlatina which *F. Pascalis* observed at Philadelphia ¶, was quite different from that of Germany, and is scarcely to be called by the same name, as, besides other circumstances, the inflammation of the fauces terminated in suppuration.

Great importance is to be attached to the progress made in the knowledge of the Rose of new-born infants, and the induration of their cellular membrane. *J. C. Renard* related a case successfully treated by musk and camphor; ** and *Nees von Esenbeck* another, in which evacuations were of use. †† *Lodemann* distinguished two kinds of induration, ‡‡ one which had its seat in the cellular membrane, the other in the muscles. The Rose of infants was frequently observed by *Horn*, and described under the name of induration of the cellular membrane. §§ This mistake is well exposed by *Lodemann* ||, who shewed that cold of the whole body, and absence of fever and gangrene, characterize the true induration of the cellular membrane. *C. E. Fischer* ¶¶ pointed out the resemblance of the latter disease to the aphthae and tetanus of new-born infants; and *Sybet* *** narrated some remarkable cases, while *W. v. Voim* ††† described the true rose of infants.

In regard to the other exanthematous diseases, the false pox were more accurately determined by *E. L. Heim*, ‡‡‡ and

* *Hufeland's Journ.* B. 33. St. 5.

† Geschichte des Scharlachfiebers, seiner Epidemien u. Heilmethoden. Leipzig, 1810.

‡ *Horn's Archiv*, 1810. Sept.

§ *Horn's Archiv*, 1811. Sept.

|| *Horn's Archiv*, 1812. May.

** *Horn's Journ. der ausl. Liter.* B. 10. St. 2.

†† *Hufeland's Journ.* B. 29. St. 2.

‡‡ *Hufel. Journ.* B. 25. St. 3.

§§ *Hufeland's Journ.* B. 31. St. 4.

|| *Archiv*, 1810. May.

¶¶ *Hufeland's Journ.* B. 32. St. 1.

*** *Hufeland's Journ.* B. 33. St. 1.

††† *Hufel. Journ.* B. 35. St. 5.

‡‡‡ *Horn's Archiv*, 1811. Novemb.

§§§ *Horn's Archiv*, B. 2. Heft. 2. 1811. Sept.

the occurrence of natural small-pox after inoculation, still maintained by *Stieglitz*, * was ascribed by *Sprengel*, except in a few unquestionable cases, to the false pox. †

We have still to notice the history of an epidemic measles by *Roux*. ‡ *Autenrieth* also made some excellent remarks upon the different forms of scabies in children and adults, and upon the effects of its retropulsion. §

Upon the hæmorrhages appeared two essays on the principles of the theory of excitement, by *J. B. Wollkopf* ¶ and *G. A. Spangenberg*; ¶ also the continuation of a work of little value by *K. J. Meyer*. ** The treatise of *E. Horn* upon hæmoptysis †† deserves to be read. *J. Lordat* ‡‡ treated the subject entirely according to antiquated principles. The causes of hæmorrhages were considered by *K. Hohnbaum* §§ to be morbid irritability and debility.

Among the publications on dysentery, that of *W. Hartz* || is particularly to be distinguished, in which the disease is compared with rheumatism, and some good remarks on its inflammatory nature are added. In Germany we had an excellent work by *J. G. Rademacher*, ¶¶ and an useful one by *E. Horn*. *** *G. v. Wedekind* ††† viewed the disease very partially as erysipelatous inflammation of the rectum, and even adduced ascariæ as its cause. What *Marcus* ‡‡‡ has advanced about the inflammation of the mucous membrane, and even of the stuff in the alimentary canal, is insignificant; and also what *E. Speyer* §§§ has said according to his principles, of the venousness of the organs affected by dysentery. *H. A. Goden*, in his description of an

* *Horn's Archiv*, 1809. B. 7. Heft. 2.

† *Inst. pathol. spec.* S. 546. f.

‡ *Traité sur la rougeole*. Paris, 1807. 8.

§ *Versuche aus der prakt. Heilk.* B. 1. Heft. 2.

¶ *Untersuchungen über die Erscheinung, Bildung und Heilung des Blutausflusses*. Th. 1, 2. Leipz. 1803. 8.

¶¶ *Ueber die Blutflüsse in medic. Hinsicht*. Braunschweig, 1805. 8.

** *Systemat. Handbuch zur Erkenntnis und Heilung der Blutflüsse*. B. 2. Wien, 1805. 8.

†† *Archiv*, 1805. B. 2. Heft. 2.

‡‡ *Traité des hémorrhagies*. Paris, 1805. 8.

§§ *Ueber eine besondere Art des übermäßigen Monatsflusses*. Erlang. 1811. 8.

¶¶ *Observations on the Simple Dysentery and its Combinations*. Lond. 1805. 8.

*** *Libellus de dysenteria*. Colon. 1806. 8.

††† *Versuch über die Natur und Heilung der Ruhr*. Erf. 1806. 8.

‡‡‡ *Ueber die Ruhr, herausgegeben von Dammberg*. Erf. 2. Main, 1811. 8.

§§§ *Ephemeriden der Heilk.* B. 8. Heft. 4.

§§§ *Versuch über die Natur und Behandlungsart der Ruhr*. Nurnb. 1810.

epidemic dysentery in Mecklenburgh, and *Fr. Schumacher*, † have furnished examples of an high sounding empty style.

The urine in diabetes was analyzed by *Dupuytren* and *Thénard*, ‡ and by *Boissock*. § Their inquiries differed, in as much as the French chemists examined the urine in the saccharine, and the Englishman in the insipid species. The latter found the urea much reduced in quantity, but also the phosphates of soda and ammonia. By this, as well as by *Rob. Watt*'s striking treatment of diabetes, with copious blood-letting, || *Rollo*'s idea of defective animalization as the cause of the disease was much limited.

To the most important, and hitherto most mistaken, diseases, we may reckon the organic diseases of the heart, and the many forms which they may assume. The last period of our history may boast of having produced classical works on this subject, and useful contributions to the knowledge of these diseases. Among the former we may reckon those by *Fr. Zuliani*, ¶ *J. N. Corvisart*, ** *A. Burns*, †† *A. J. Testa*, ‡‡ and *E. L. Kreyzig*. §§ Useful contributions, especially upon the congenital malconformations of the heart, and the blue disease connected with it, were published by *J. F. Meckel*, || who considers these malconformations as arising from the formation of the heart being interrupted in its progressive development and remaining stationary in its early stages; by *C. F. Nasse*, ¶¶ *B. M. Seiler*, *** *Standert*, ††† *Caillot*, and *Duret*, ‡‡‡ *Marcet*, §§§

* *Horn's Archiv*, 1812. März.

† *Beitr. zur Nosogenie und Nosologie der Ruhr*. Cöln, 1812. 8.

‡ *Journ. de Corvisart*, 1806. Août. *Annal. de chimie*, Tom. LIX. p. 175.

§ *Göhlen's Journ.* B. 2. S. 210. *Samml. für praktische Aerzte*. B. 24. S. 123.

|| *Memoirs of the Med. Soc. of Lond.* Tom. VI. p. 237. *Göhlen's Journ.* B. 2. S. 195.

¶ *Cases of Diabetes, Consumption, etc.* Glasg. 1805. 8.

** *De quibusdam cordis affectibus*. Brix. 1805. 4.

†† *Essai sur les maladies organiques du coeur et les lésions des gros vaisseaux*. Paris, 1806. 8.

‡‡ *Observations on some of the most frequent and important Diseases of the Heart*. Edinb. 1809. 8. Übers. von Nasse. Lemgo, 1813.

§§ *Delle malattie del cuore*. Vol. I.—III. Bologn. 1811. 8. Übers. von Sprengel. Halle, 1815. 8.

|| *Die Krankheiten des Herzens, systematisch bearbeitet*. Th. 1. Berl. 1814. 8.

¶¶ *Handb. der pathol. Anat.* S. 420. f.

*** *Reil's Arch.* B. 10. S. 215. f.

††† *De morbo caeruleo obs.* Witteb. 1805. 4. *Horn's Arch.* 1805. B. 2. Heft. 2.

‡‡‡ *Philos. Transact.* 1805. *Harkn's Journ.* für anal. Lit. B. 7. Heft. 1.

§§§ *Bulletin de la Soc. Med. de Paris*, 1807. p. 21. sq.

§§§ *Edinb. Med. and Surg. Journ.* Vol. I. p. 412.

Thomas, * *Obst.* † *Palois*, ‡ *S. J. B. Schuler*, § and *C. F. Haase*. || Cases of enormous hearts were published by *E. Horn*, ¶ *Memsinger*, ** *C. W. Auf* and, †† *Heineken*, †† and *Berlicz*. §§ Good inquiries into the different causes and phenomena of palpitation were made by *G. A. Spangenberg*. || Cases of ruptured heart were related by *Erdmann*, ¶¶ *C. E. Pohl*, *** *J. U. L. Schäffer*, ††† *V. L. Brera*, ††† *Angiolola*, §§§ and *Renauldin*. |||| A petrification of the heart was observed by *Heber*, ¶¶¶ *J. Gärtner* made some sound inquiries into polypi of the heart; **** and the observation of *Abernethy* †††† upon the contraction of the passage from the left auricle into the left ventricle is remarkable.

The disease called angina pectoris, which is commonly connected with organic affection of the heart, was attributed by *Jahn* to palsy of the heart, †††† and by *V. L. Brera* §§§§ to preternatural size of the abdominal viscera, by which the diaphragm is pressed upwards. *J. G. Lige*, |||| published a case remarkable for its anomalous symptoms.

That apoplexy often arises from diseases of the heart, was proved by *Tetta's* observations, and the universally lamented death of the Prince of Holstein-Augustenburg, elected Crown Prince of Sweden. ¶¶¶¶ The doctrine of apoplexy, in general,

- * *Mém. de la Lond. Med. Soc.* Vol. VI. p. 57.
 † *Bullet. des Scienc. Méd.* par la Soc. d'Emulation, 1808. May.
 ‡ *Harle's Jahrb.* B. 2. S. 128.
 § *Diss. de morbo caeruleo.* Insh. 1810. 8.
 ¶ *Diss. de Morbo caeruleo.* Lips. 1815. 4.
 ** *Archiv.* 1808. B. 4. Heft. 2.
 *** *Hufel. Journ.* B. 24. St. 4.
 †† *Journ.* B. 32. St. 4.
 ††† *Horn's Archiv.* 1810. Jan.
 †††† *Journ. de méd.* Tom. XXXV. Nov.
 ¶¶ *Horn's Arch.* 1811. Jul.
 ¶¶¶ *Horn's Archiv.* 1806. Heft. 1.
 **** *Diss. de ruptura cordis.* Lips. 1808.
 †††† *Hufeland's Journ.* B. 30. St. 2.
 ††††† *Di una straordinaria rottura di cuore.* Verona, 1808.
 §§§ *Gior. della soc. med. di Parma*, Vol. II. n. 11. *Harle's Journ.* der ausl. Lit. B. 10. St. 2.
 |||| *Journ. de Corvisart*, 1806. Jan. *Samml. für prakt. Aerzte*, B. 24. S. 229.
 ¶¶¶ *Satzb. med. Zeit.* 1811. B. 2. S. 155.
 *** *Diss. de polypo cordis, in specie infantum.* Witteb. 1810. 8.
 †††† *Medic. chirurg. Beobacht. der med. chirurg. Gesellsch. in London*, übersetzt von Osann, n. 4. Berl. 1811. 8.
 ††††† *Hufeland's Journ.* B. 23. St. 3.
 §§§§ *Della stenocardia.* Verona, 1810. *Harle's Jahrb.* B. 2. Heft. 1.
 ||||| *Hufeland's Journ.* B. 37. St. 5, 6.
 ¶¶¶¶ *Routin in Horn's Archiv*, 1812. B. 2. S. 27. f.

was explained upon the principles of theory of excitement, by *J. L. Ottensee*; * by *K. F. Burdach*, † upon the partial view of collapse and contraction of the brain; and by *J. A. Gay*, ‡ merely to refute the generally sanguineous nature of apoplexy. The brothers *Montain* § divided the sanguineous apoplexy into arterial and venous, and endeavoured to distinguish them from the other kinds. *Gautier de Claubry* || published some interesting observations on the accumulation of blood in the vessels of the spinal marrow; and *Dürr*, ¶ others upon internal varicose veins. P. *Bonomi's* ** observations on the palsy of the lower extremities, combined with distortions of the spine, deserve to be read.

Upon the nervous diseases, in general, *F. W. v. Hoven* †† published a practical manual. Hydrophobia, as a nervous disease, was supposed by *Jonas* †† to proceed often from excited imagination. *E. Hartog* §§ treated of the disease scientifically, and considered hydrogen produced in dogs by the retention of the semen, as the exciting cause of the nervous affections. *T. W. G. Benedict* || gave some good hints on the nature of the disease. Also *Larrey's* remark, ¶¶ that hydrophobia is rare among the Egyptian dogs, because they are of a mild race, and procreate only once a-year, contributed somewhat to explain the nature of the disease. In England, on the contrary, the disease was remarkably frequent in summer 1808; and some good cases were published by *Forcell*. *** *M. P. E. Gorcy's* ††† observations and inquiries also deserve to be read.

Upon St Vitus's dance, the work of *J. Berni* ††† deserves to

- * *Von der Erkenntnis und Heilung des Schlagflusses und der Lähmung.* Berl. 1805. 8.
 † *Die Lehre vom Schlagfluss, seiner Natur, Erkenntnis, Verhütung und Heilung.* Leipz. 1806. 8.
 ‡ *Vues sur le caractère et le traitement de l'apoplexie.* Paris, 1807. 8.
 § *Traité de l'apoplexie.* Lyon, 1811. 8.
 || *Journ. génér. de la soc. de medec. à Paris.* *Harle's Journ.* d. ausl. Lit. B. 9. St. 2.
 ¶ *Hufeland's Journ.* B. 26. St. 2.
 ¶¶ *Siebold's Chiron.* B. 2. St. 1.
 §§ *Versuch über die Nervenkrankheiten.* Nürnberg, 1813. 8.
 ||| *Horn's Archiv*, 1805. B. 2. Heft. 1.
 |||| *Diss. de hysteria contagiosa & hydrophobia.* Erl. 1806. 8.
 ||||| *Ideen zur Begründung einer rationellen Heilmethode der Hundswuth.* Leipzig, 1808. 8.
 ¶¶ *Denkwürdigk.* S. 250.
 *** *Cases of hydrophobia.* London, 1808. 8.
 ††† *Journ. de Corvisart*, Tom. XIII. p. 83. *Samml. für prakt. Aerzte*, B. 24. S. 375. f.
 †††† *Monographia choreae S. Viti.* Prag. 1810. 8.

be noticed and distinguished. *Winiker** observed it in adults. A history of a case is important. † *J. Schneider* published at Herborn, 1806, 8vo, a good treatise on the tetanus of children. The chinocough was considered according to the modern ideas by *V. H. L. Paldamus*, ‡ and at the same time by *Fr. Jahn*. § *R. Watts* || seems to have confounded it with the croup. *J. M. D. Clesius* is the latest author on the subject. ¶

The dolor faciei Fothergillii was observed by *Jonas*** and *J. G. Breiting*. †† *C. F. M. Langenbeck* ‡‡ inquired into the seat of the disease in the frontal nerve. *F. X. J. v. Leuthner* §§ and *C. A. T. Hartmann* || published good compilations on the subject. *Masius* ¶¶ looked for the origin of the disease in the venereal poison. *B. Herber* *** published a case successfully treated; and *Steinbuch*'s recent observation ††† is interesting.

On hypochondriasis we have a classical work by *L. Storr*: ††† and good observations on the theory of gout by *Picinus*, §§§ with which the explanation of chalk stones by *J. More* |||| agrees. Upon chronic rheumatism, an insignificant work by *Rodamel* ¶¶¶ appeared. The French physicians observed at Madrid a kind of cholice, little known, which was ascribed to the sudden changes of weather. ****

The desire to investigate the diseases of the mind scientifically was general among physicians. From *Pinel*'s *Nosographie Phi-*

* *Horn's Archiv*, 1812. Jan.

† Ueber die Fallsuche. Zweyte Aufl. Brem. 1807. 8.

‡ Der Stickhusten. Halle, 1805. 8.

§ Ueber den Keichhusten. Rudolst. 1805. 8.

|| Treat. on the nature and treatment of chinocough. Edinb. 1813. 8.

¶ Etwas über die Quelle, den Sitz, die Eigenthümlichkeiten u. Heilmethode des Keich- oder Blauenhustens der Kinder. Hadamar, 1813. 8.

** *Horn's Archiv*, 1805. B. 2. Heft. 2.

†† *Hufeland's Journ.* B. 25. St. 4.

‡‡ *Yrrest*, anatomico-chirurgicus de nervis cerebri in dolore faciei consideratis. Gott. 1805. 4.

§§ Diss. de dolore faciei Fothergillii. Erl. 1810. 8.

|| Diss. sistens observationes quasdam de prosopalgia. Tub. 1811. 8.

¶¶ *Hufel. Journ.* B. 25. St. 1.

*** *Huf. Journ.* B. 26. St. 6.

††† Abh. der physic. medic. Soc. in Erlangen, B. 2. N. 16.

|||| Untersuchungen über den Begriff, die Natur und die Heilbedingungen der Hypochondrie. Stuttg. 1805. 8.

¶¶¶ *Horn's Arch.* 1808. B. 4. St. 1.

**** Med. chir. Abh. einer med. chir. Gesellsch. in London, übers. von Orzann, n. 10.

¶¶¶ Traité du rhumatisme chronique. Lyon, 1808. 8.

**** *Larrey's Denkwürdigk.* S. 460. *Deplace* im *Journ. de Sedillot*, Tom. XXXVI. Sept. 1809.

losophique, Paris, 1807, in which the mental derangements are treated of, according to their symptoms, without any particular philosophical arrangement, little advantage accrued, although praised by his countrymen, exactly in regard to this branch. Yet *Pinel* had the twofold merit of having pointed out the abdomen as the cause of many derangements, and of having introduced a better treatment of these diseases. *P. A. Prost** followed him in the pathology, especially in deriving derangement from the morbid state of the nervous ganglia of the abdomen. In Germany, journals were allotted for the improvement of our knowledge of these diseases, with little advantage, by *A. Winkelmann*, † and *J. C. Reil*, and *Kayssler*. ‡ Another periodical work by *J. C. Reil*, and *J. C. Hoffbauer*, § was more successful. ¶ *C. Daubier* || explained well an acute theory of mania, in which he considers it to be a morbid affection of the sympathetic and olfactory nerves, with preponderating venosity. ¶¶ *C. Hoffbauer* published a new edition of *Crichton*; ¶¶ and to this place belong a work of his own, ** and another by *G. E. Elvert*. †† *Winiker* ‡‡ endeavoured to prove that mental derangement could be cured by medicine; but *A. Heindorf*'s §§ is unquestionably the most successful work of its kind.

Among the cachexies, the favourite subjects with medical authors were phthisis pulmonalis and syphilis. *G. F. Ballhorn* ||| pointed out the cheesy or granulated and pultaceous white expectoration which occurs in gouty (phthisical?) people. *Sal-made* ¶¶ renewed the old controversy about the contagious na-

* Coup-d'oeil physiologique sur la folie. Paris, 1806. 8. Deuxième et troisième coup-d'oeil. Paris, 1807. 8.

† Archiv für die Gemüths- und Nervenkrankheiten. St. 1. Berlin, 1805. 8.

‡ Magazin für die psychis. Heilkunde, B. 1. Berl. 1805. 8.

§ Beiträge zur Beförderung einer Kurmethode auf psychischem Wege. B. 1, 2. Halle, 1808. 1810.

¶ Diss. de natura maniae. Tubing. 1806. 4.

¶¶ Untersuchung über die Natur und den Ursprung der Geistes-Zerrüttung. Leipz. 1810. 8.

¶¶¶ Psychologie in ihren Hauptanwendungen auf die Rechtspflege, nach den allgemeinen Gesichtspunkten der Gesetzgebung. Halle, 1808. 8.

†† Ueber ärztliche Untersuchung des Gemüthszustandes. Tub. 1810. 8.

‡‡ *Horn's Arch.* 1810. May.

§§ Versuche einer Pathologie u. Therapie der Geistes- und Gemüthskrankheiten. Heidelberg, 1811. 8.

¶¶¶ In quoddam phthiseos pulmonalis signum commentatur. Hannov. 1805. 8.

**** Diss. qui tend à établir, que la phthisie pulmonaire n'est pas contagieuse. Paris, 1805. 8.

ture of pulmonary phthisis; and afterwards* proposed some very inadequate means for preventing the disease. B. C. Vogel† related some successfully treated cases. An elaborate treatise on the mucous species of phthisis was published by E. Wichelhausen.‡ J. J. Busch§ directed the attention of physicians once more to neglected colds as a cause of phthisis, and recommended sulphuret of lime as a remedy against suppurative of the lungs. The same author treated of the complication of the disease with hypochondriasis.¶ An excellent work, upon the different forms of the disease, was published by Th. Reid.¶ Acute reflections concerning the disturbed proportions of animal electricity in this disease, as well as upon the difference between the florid, chlorotic, and nervous consumption, are to be found in L. Storr's Essays.** C. W. Hufeland†† and Baumes‡‡ also gave very good rules for the treatment of the different forms of the disease. A new and ingenious theory of consumption, that it consists in the interruption of the disoxydation process of the venous blood, and hence that it is influenced by the diseases of the liver, was promulgated by J. D. Herholdt.§§ We are acquainted with the titles only of two recent publications in England.¶¶

Among the general works on the venereal disease, one by E.

* Journ. de Sedillot, Tom. XLVI. Mars.

† Sammlung schwieriger medic. und chirurg. Fälle. Erste Lieferung. Altorf, 1805. 8.

‡ Ueber die Erkenntnis, Verhütung und Heilung der schleimigen Lungensucht. Th. 1. Mannheim, 1806. 8.

§ Ueber die Natur und Heilart der Lungensucht und der gefährlichen Katarthalsieber. Straßb. 1805. 8.

¶ Ueber die adynamische oder sogenannte nervöse Lungensucht. Straßb. 1807. 8.

¶ Treat. on the origin, progress, and treatment of consumption. Lond. 1806. 8.

** Hufeland's Journ. B. 25. St. 5. Ueber die Natur und Heilung der Lungenschwindsucht. Stuttg. 1809. 8.

†† Journ. B. 30. St. 1, 2.

‡‡ Von der Lungensucht, übersetzt von C. P. Fischer. Th. 1, 2. Hildburgh. 1809. 8.

§§ Harkn's Jahrb. B. 2. S. 161. f. Ueber die Lungenkrankheiten, übers. von A. Schomberg. Nürnberg. 1814. 8.

¶¶ A. Duncan's observations on the distinguishing symptoms of three different species of pulmonary consumption. Edinb. 1815. 8.

Ch. Farr's observ. on the nature and treatment of consumption. London. 1814. 8.

H. Martens* received little, but another by F. A. Walch† greater praise. In the latter, the theory is also thus elucidated, that it is proved that the lymphatics and capillary vessels partly pass from their indifferent state into the sphere of the nerves. E. Horn‡ also gave some valuable contributions to the theory of the disease. J. A. Schmidt's ideas§ are likewise worth reading, although delivered in a very inflated style. A work by J. E. Aronsohn¶ is perfectly insignificant; another by J. Louvrier¶¶ is more useful. P. O. Mason's** treatise also deserves notice. The old controversy about the syphilitic nature of gonorrhoea, which has been long decided, was renewed, without any good result, by C. Ehrmann, surnamed Stelzwag.†† A very superfluous compilation was published by G. W. Töpelmann.‡‡

On the Plica Polonica, J. F. A. Schlegel§§ published very good observations. The French army physicians, who observed this disease in their earlier campaigns in Poland, did not look upon it as a disease of a peculiar nation, but as a degenerated form of syphilis.¶¶ A work by T. E. Chrones von Ruhmfeld¶¶¶ deserves no particular notice.

Upon the scrofulous affections, we had a good work from Baumes;*** and upon the same disease, as well as upon rickets, another disease of the same nature, we had good observations by M. A. Salmae.††† With this subject the excellent

* Handb. zur Kenntniss und Kur der venerischen Krankheit. Th. 1, 2. Lpz. 1805. 8.

† Ausführliche Darstellung des Ursprungs, der Erkenntnis, Heilung und Vorbeugung der venerischen Krankheit. Jena, 1811. 8.

‡ Handb. der medic. Chirurgie. Th. 2. Berl. 1806. 8.

§ Vorlesungen über die syphilitische Krankheit und ihre Gestalten. Wien, 1812. 8.

¶ Vollständige Abb. aller venerischen Krankheiten. Berl. 1808. 8.

¶¶ Nosographisch-therapeutische Darstellung syphilitischer Krankheitsformen. Wien, 1809. 8.

** Über die syphilitischen Krankheiten der Schwängern, der neugeborenen Kinder und Ammen. Uebers. Hildesh. 1807. 8.

†† Untersuchung der Frage, ob der Tripper eine Krankheit eigener Art, oder ein venerischer Zufall sey? Erfk. a. Main, 1806. 8.

‡‡ Neuere Erfahrungen über zweckmässige Behandlung venerischer Schleimaussflüsse und der ihnen nachfolgenden Uebel. Leipz. 1809. 8.

§§ Ueber die Ursachen des Weichselzopfes der Menschen und Thiere. Jena, 1806. 8.

¶¶ Beyer in Hufeland's Journ. B. 28. St. 4. Larrey's Denkw. S. 431. Roussille-Chamseru im Journ. de Sedillot, Tom. XXXV. Juill.

¶¶¶ Neueste Ansicht des Weichselzopfes. Freyh. 1813. 8.

*** Traité sur le vice scrophuleux. Paris, 1805. 8.

††† Précis d'observations pratiques sur les maladies de la lymphe. Paris, 1810. 8.

treatise of Alard on leprosy* is connected. Cases of scabby leprosy were detailed by L. Ottner,† Reusch,‡ A. Metternich, and Fr. Wittmann,§ and Horst.|| The northern variety of leprosy, called Radesyge, was described anew by J. Fougé,¶ and J. H. G. Schlegel** edited a collection of papers on Pellagra.

The theory of dropsies was again attempted to be established by J. A. Walther,†† on excess of hydrogen, and defect of the formation of blood in the capillary vessels. The latest work, by J. Blackall,‡‡ we only know by its title.

Lastly, we proceed to notice the most interesting observations on the diseases of individual organs. J. Abernethy's observations upon the diseases of the digestive organs in general §§ are worthy of perusal; likewise Pemberton's remarks upon the difference of diseases seated in the nutritive and secretory glands; || J. A. Stone's observations on the diseases of the stomach; ¶¶ Chardel upon scirrhus of the stomach; *** and Jüger's excellent remarks on the softening of the bottom of the stomach. †††

Upon the diseases of the liver, J. Farre's publication ††† is greatly praised; and C. F. Harles §§§ has made some good remarks on the diseases of the pancreas, especially its suppuration.

On the stricture of the œsophagus, Heineken's ||| and Naeguar's ¶¶¶ observations are to be recommended. Metzler ****

* Histoire d'une maladie particulière au système lymphatique. Paris, 1807. 8.

† Diss. observata quædam in historiam lepræ, subiancto casu recentiori lepræ Græcorum. Tubing. 1805.

‡ Hufel. Journ. B. 50. St. 6.

§ Hufel. Journ. B. 52. St. 6.

|| Diss. casum singularem morbi leprosi Ubiorum Coloniae observati. Paris, 1812. 8.

¶ Obs. in exanthema arcticum, vulgo Radesyge dictum. Gryph. 1811. 4.

** Briefe einiger Aerzte in Italien über das Pelagra. Jena, 1807. 8.

†† Hufeland's Journ. B. 35. St. 3.

‡‡ Observations on the nature and cure of Dropsies. Lond. 1813. 8.

§§ Surgical Observations, P. II. Lond. 1806.

|| Practical treat. on various diseases of abdominal viscera. Lond. 1806.

¶¶ Practical treat. on the diseases of the stomach. Lond. 1806.

*** Monographie des générations scirrheuses de l'estomac. Paris, 1808. 8.

††† Hufeland's Journ. B. 32. St. 5.

||| Morbid Anatomy of the Liver. Lond. 1814. 4.

¶¶ Ueber die Krankheiten des Pankreas. Nürnberg, 1812. 4.

§§ Hufeland's Journ. B. 32. St. 5.

||| Journ. de Sedillot, Tom. XLII. Sept.

**** Hufeland's Journ. B. 35. St. 1.

published on strictures of the rectum; * Rubini on those of the jejunum; and S. T. Sömmerring,† and W. Schmid‡ on the diseases of the urinary organs.

IV. Materia Medica.

The theory of the action of medicines was, during this period, still partly treated of according to the doctrine of excitement, as by W. H. G. Remer,§ E. Horn,|| and F. Wurzer.¶ The Italians added to the principles of the Brunonian school their contro-stimuli, under which they include all directly debilitating powers,—a doctrine which may, indeed, be defended, from the consideration, that all external agents rather restrain the organic powers than excite them to reaction. If, however, the restraining action continue, and no excitement follow, the process is undoubtedly that of depression. The prussic acid, digitalis, and various other substances, act in this way. But it is no less certain that this doctrine is carried to excess, and misapplied by P. Rasori and Borda, by including among the contro-stimuli all metallic medicines except iron. To this was added a crude empiricism, which led the supporters of this school to give, often arbitrarily, such remedies as they maintained were sedative in those diseases which they considered as sthenic.**

In Germany, also, the division of stimuli into positive and negative met with assent. Not only E. Horn adopted it as a

* Harles's Journ. der ausl. Liter. B. 10. St. 2.

† Abb. über die schnell und langsam tödtlichen Krankheiten der Harnblase und Harnröhre bey Männern im hohen Alter. Frkf. am Mayn. 1809. 4.

‡ Ueber diejenigen Krankheiten der Harnblase, Vorniederdrüse und Harnröhre, denen vorzüglich Männer im hohen Alter ausgesetzt sind. Wien, 1806. 8.

§ Handbuch der Heilmittellehre. Braunschw. 1805. 8.

|| Handbuch der praktischen Arzneimittellehre. 2te Aufl. Berl. 1805. 8.

¶ Grundriss der Arzneimittellehre. Leipz. 1808. 8.

** Bondioli sulle forme particolari delle malattie universali, in the Memorie della soc. ital. Vol. XII.

Rasori in the Annali di scienze e lettere, Vol. II. p. 189. Vol. III. p. 104, 275.

Rasori prospetto de' risultati della clinica medica nello Spedale di S. Ambrogio. Milano, 1808.

principle, but also *G. A. Berlele*,* who classed as positive stimuli those which contained carbon and hydrogen, and as the negative those which furnished oxygen, directly or indirectly, among which he included, arbitrarily enough, the evacuants. The work of *K. F. Burdach*† was equally fanciful, and he, moreover, subjected the remedies containing azote to a perfectly arbitrary hypothesis. *J. A. Schmidt's* posthumous work‡ was written in the same spirit. His dynamic views are founded on hypothetical relations of the elements; and only in a few places can it be remarked, that experience triumphs over them against the will of the author. In striking contrast with these hasty attempts is *S. Hahnemann's* work, so rich in indexes,§ which *J. A. Neurohr*|| also seems to have followed as a model. *C. H. Pfaff*¶ treated the materia medica in a classical work, according to their predominant immediate principles. *C. H. Mynster*,** and *J. J. Bernhardt*, and *C. F. Bucholz*, the latest editors of *Gren's* pharmacology, proceeded upon similar principles. A purely practical and very useful work, in alphabetical order, was published by *Fr. Jahn*‡‡ but the manual of *J. Staudt*,†† although also practical, was less commendable. Among the foreign manuals we know by name only those of *C. Alibert*,§§ *J. Murray*,||| and *J. de Matheis*.¶¶

As many very active drugs had become much scarcer and dearer, in consequence of the obstruction to commerce, the proposal of substitutes for these became very frequent. Even governments, such as the Austrian, proposed considerable prizes for the discovery of a perfect substitute for cinchona. Among fifty-two answers sent in, the first prize was conferred upon the treatise of *K. H. Sander*,*** who recommended the Yellow Lichen parietinus, and the second to *Dr Zsoldos* at Paxa in

* Handbuch einer dynamischen Arzneimittellehre. Landsh. 1805. 8.
† System der Arzneimittellehre. B. 1.—3. Leipz. 1807—1809.
‡ Lehrbuch der Materia Medica. Wien, 1811. 8.
§ Fragmenta de viribus medicamentorum positivis. P. 1. 2. Lips. 1805. 8.
¶ Versuch einer einfachen und praktischen Arzneimittellehre. Zweyte Aufl. Heidelb. 1811. 8.
¶¶ System der Materia Medica. Th. 1.—3. Leipz. 1808. 1814. 8.
** Pharmakologie B. 1. Kopenh. 1810. 8.
†† Auswahl der wirksamsten Arzneimittel. Neue Aufl. B. 1. 2. Erf. 1807. 8.
‡‡ Praktische Heilmittellehre. Th. 1. 2. Wien. 1809. 1810. 8.
§§ Nouveaux élémens de thérapeutique et de mat. médicale. Paris, 1808.
||| System of Materia Medica and Pharmacy, Vol. I. II. Edinb. 1814. 4.
||| Analisi della virtù de' medicamenti. Rom, 1810.
*** Salz. med. Zeit. 1815. B. 5. S. 288.

Hungary, who recommended the bark of the *Rhus cotinus*.* In 1805, *Hufeland*† gave encouragement to the employment of the known, and to the discovery of new, substitutes for cinchona; but, at a later period,‡ he assented, with propriety, to the opinion of an anonymous author, who altogether rejected the substitutes. *S. Hahnemann*§ expressed nearly the same opinion. On the contrary, another anonymous author|| admitted much too easily the substitution of the cheaper native remedies for the foreign. In opposition to which, it is only necessary to quote the severe satire of an anonymous writer.¶ *P. J. Piderit*** examined the subject seriously and thoroughly; and a similar work by *J. S. Frank*†† also deserves honourable mention. Besides the substitutes for cinchona proposed, in consequence of the Vienna prize-question, a great many native aromatic and bitter plants,‡‡ were recommended by *J. C. Renard*, others of the same kind §§ by *F. W. Heller*, the common chamomile||| by *P. J. Piderit*; the bark of the sloethorn¶¶ by *Juch*; and even the alburnum of the pine *** by *Berzelius*; lastly, spider's-web by several German, Swedish, and English physicians; which led *Autenrieth* and *Rauschenbusch*,††† almost ironically, to maintain, that powdered wood of any kind cured ague. Among the foreign substitutes for cinchona, the greatest notice was taken of coffee, and especially of the extract prepared from it unroasted, as directed by *Grindel*;††† and testimonies in favour of it were given by *Paldamus*,§§§ *Neumann*,||| and *Weber*.¶¶¶ Strong coffee, as usually prepared, was also recom-

* Salz. med. Zeit. 1813. B. 3. S. 288.
† Hufeland's Journ. B. 21. St. 3.
‡ Hufeland's Journ. B. 34. St. 1.
§ Hufeland's Journ. B. 23. St. 4.
|| Der Medicinische Sollverreter. Gotha, 1809. 8.
¶ Ruben und Kartoffeln als Surrogate der Reibzotten. Teltow, 1808. 8.
** Versuch einer Darstellung der ausländischen Arzneimittel, in Rücksicht ihrer Ent-oder Unentbehrlichkeit. Cassel, 1810. 8.
†† Surrogate für mehrere ausländische Arzneimittel. Wien, 1809. 8.
‡‡ Die inländischen Surrogate der Chinarrinde. Mainz, 1809. 8.
§§ Hufeland's Journ. B. 17. St. 4.
||| Ueber inländische Surrogate für die Chinarrinde. Göttingen, 1807. 8.
¶¶ Salz. med. Zeit. 1808. B. 5. S. 447.
*** Hufeland's Journ. B. 34. St. 1.
††† Diss. de manifestis in organismo mutationibus, usu chinæ, quercus et tormentillæ productis. Tubing. 1809. 4.
§§§ China-Surrogat. Leipz. 1809. 8.
||| Horn's Archiv, 1809. B. 3. Heft. 2.
¶¶¶ Horn's Archiv, 1811. May.
††† Horn's Archiv, 1812. May.

mended by *W. Zambelli** and *Labonnardiere*†. The rind of the pomegranate was recommended by *J. Rehmann*‡, and *Hildenbrand*§ praised the bark of the tulip tree. Animal gelatine, formerly recommended by *Gautieri*, was again praised by *W. Renner*|| who gave it in conjunction with charcoal made from the wood of the lime tree. An anonymous writer¶ subjected the history of its exhibition to a careful investigation. *Bremer*'s** recommendation of the bark of the *Prunus padus* attracted much attention, and acquired the assent of several practical physicians. Lastly, the rhatany root (probably got from the *cinchona cordifolia* of Vahl) was praised in England.††

Our knowledge of the natural history of cinchona was much elucidated by the information which *F. A. Lea*‡‡ gave of the inquiries of the venerable *Mutis*, and especially by *Humboldt*'s remarks. §§

Like the cinchona, opium is a foreign vegetable product, for which a substitute can scarcely be found. Indeed *Loiseleur-Deslongchamps*|| was of opinion that as good opium could be got from the poppy in this country as that of the East; and *Walberg*¶¶ made experiments on the manufacture of opium on the *Lichtenstein* estates, which are said to have succeeded. But the want of the almost tropical sun of Egypt, and other circumstances, render the goodness of the home made opium doubtful. The extract of the *Lactuca virosa* was recommended as an antispasmodic by *H. M. Schlesinger*;*** but this substance could not be a substitute for opium, any more than the *Datura stramonium*, which was again recommended by *Harles*††† in hydrophobia, and by the English lately against asthma.††† We also received evidence in favour of the efficacy of the *Sola-*

* *Diatribe de vi febrifuga fabae arabicae sive cofeae*. Vienn. 1811. 8.

† *Journ. de Sedillot*, Tom. XXXIV. Mars.

‡ Notice sur un remède propre à remplacer le quinquina. Moscov. 1809. 4.

§ *Salzb. med. Zeit.* 1809. B. 1. S. 349.

|| *Hufeland's Journ.* B. 25. St. 3.

¶ *Neues Journ. der Erf.* St. 18. 19.

** *Horn's Archiv*, 1812. Jan.

†† *R. Reece* practical treatise on the radix Rhataniæ. Lond. 1808. 8.

‡‡ *Trummsdorf's Journ. der Pharm.* B. 14. St. 2.

§§ *Plantes equinoxial*. Livr. 3.

|| *Journ. de Sedillot*, Tom. XL. Janv.

¶¶ *Salzb. med. Zeit.* 1811. B. 2. S. 78.

*** *Hufeland's Journ.* B. 25. St. 1.

††† *Ueber die Behandlung der Hundswuth*. Frankf. am Main. 1809. 4.

††† *Hufeland's Journ.* B. 26. St. 2.

rum Carolinense in tetanus, in the tropical districts of America.* *Fraser* praised the common mistletoe as an antispasmodic in epilepsy.†

Burns‡ praised the efficacy of foxglove in preventing abortion; and *Heusinger*§ tried it in general.

Bourne|| recommended the leaves of the *Arbutus uva ursi*, formerly known as a remedy in nephritic symptoms, against consumption when combined with opium. *A. Metternich*¶ again confirmed the efficacy of the *Rhododendron chrysanthum* in arthritis. A decoction of the *viola tricolor* was recommended in syphilis by *J. H. G. Schlegel*.** Against this, also, a composition of vegetable substances was announced with great pomp by *F. J. Benard*.†† It consisted of opium, gum arabic, potass, and tincture of cinnamon, and was found by *C. W. Hufeland*‡‡ and *E. Horn*§§ to be insufficient.

Vinegar was lately recommended in typhus by *Parrot*|| and *Flemming*|| praised the use of camphor in amaurosis.¶¶

Of mineral substances, graphite or plumbago was recommended as an admirable remedy, externally and internally, against cutaneous diseases, by *K. A. Weinhold*;*** and *Huber* triturated it with quicksilver to an aethiops;††† and the fetid oil of coal was cried up empirically by *J. G. Lucas*.†††

E. Löbenstein-Löbel§§§ made some interesting observations on phosphorus; and phosphoric acid was praised by *Lützelberger*|| in asthenic hæmorrhagies. *Tommasini*, *Ontyd*, and others, ¶¶¶

* Coup d'oeil sur les différens modes de traiter le tétanos en Amérique, par *L. Valentin*. Paris, 1811.

† Essay on Epilepsy. Lond. 1800. 8.

‡ Essay on Abortion. Lond. 1806. 8.

§ *Horn's Archiv*, 1811. Sept.

|| Cases of pulmonary consumption, treated by *Uva ursi*. Lond. 1806. 8.

¶ *Ueber die gute Wirkung der sibirischen Schneerose in der Gichtkrankheit*. Maynz. 1810. 8.

** Materialien für die Staatsarzneyw. und prakt. Heilk. Samml. 3.

†† *Ernschafte, auf Erfahrung gegründete Warnungen an die Freunde der Menschheit gegen den Gebrauch des Quecksilbers in verschiedenen Krankheiten*.

‡‡ *Hufeland's Journ.* B. 26. St. 1.

§§ *Horn's Archiv*, 1812. Nov.

|| *Hufeland's Journ.* B. 26. St. 5. B. 27. St. 1.

¶¶ *Hufeland's Journ.* B. 22. St. 1.

*** Der Graphit als neuentdecktes Heilmittel gegen die Flechten. Leipz. 1809. 8.

††† *Salzb. med. Zeit.* 1811. B. 3. S. 282.

|| *Ueber das Braunkohlenöl*. Halle, 1808. 8.

¶¶ *Horn's Archiv*, 1810. May.

|| *Hufeland's Journ.* B. 26. St. 1.

¶¶¶ *Harles's Journ. der ausl. Lit.* B. 9. St. 2. B. 10. St. 1.

found the oxymuriatic acid, formerly so praised in the cure of the venereal disease, insufficient. The operation of acids, in general, on the human body, was well stated by *H. G. Wüstney*. * Carbonate of potass was recommended in diseases of the urinary organs by *Mascagni*; † and caustic ley by *Elser* ‡ in hydrophobia; frictions of ammonia, with eau de Cologne, by *C. F. Harles* § in dropsies. *J. A. Albers* || made more precise trials of the sulphuret of potass, recommended by *Chausier* and others as a specific in croup, and ascertained the cases for its use.

G. L. K. Kapp published on the metals in general, a very superfluous book. ¶ *C. W. Hufeland* praised anew the combinations of the metals with ether; and *A. Henke* ** the mercurial ether especially.

No metal, used in medicine, attracted so much attention during this period as arsenic, concerning the mode of action of which, in general, we have already quoted *Jägers* observations. The remarks of *Benj. Barton* in America, of *Pearson* in England, of *Erera* in Italy, and of *Foderé* and *Desgranges* in France, on the efficacy of arsenic combined with potass or soda in intermittent fever, †† gave occasion to *Harles* ‡‡ to recommend strongly, both on the authority of these and of his own observations, the combination of arsenic with soda, not only in intermittent fevers, but also in other chronic and obstinate diseases. From personal experience, this praise was accorded to by *E. L. Heim*, §§ *Rehfeld*, || *Schnaubert*, ¶¶ *Hildebrandt*, *** *Nasse*, ††† *Hofmann*, †††† *Reimer*, §§§ and others. But there were not wanting contrary observations, of the unsuccessful or even

* Die wohlthätigen Wirkungen der Säuren bey innerlichen und äusserlichen Krankheiten. Rostock, 1806. 8.

† Mem. della soc. ital. Vol. XII. *Gehlen's Journ.* B. 2. S. 269.

‡ Salz. med. Zeit. 1812. B. 3. S. 26.

§ Jahrb. der deutschen Med. B. 5. Heft. 2.

|| Salz. med. Zeit. 1812. B. 2. S. 123. f. *Journ. de Sedillot*, Tom. XLVI.

¶ Febr. Biblioth. medic. Tom. XXXIX. Mars.

¶¶ Lehrbuch der praktischen Arzneimittellehre. Nürnberg. 1813. 8.

*** *Hufeland's Journ.* B. 29. St. 14.

†† *Harles's Journ.* der ausl. Liter. B. 8. St. 2. B. 9. St. 1.

‡‡ Abhandl. der phys. med. Soc. in Erlangen, B. 1. n. 9.

§§ *Harles*, de arsenici usu in medicina. Norib. 1811. 8.

|| Der Arsenik als Eiehmittel. Berl. 1811. 8. *Horn's Archiv*, 1810. Nov.

¶¶ *Horn's Archiv*, 1810. Sept.

*** *Horn's Archiv*, 1811. Jan.

††† *Harles's Jahrb.* B. 1. S. 148.

†††† Abh. der phys. medic. Societ. zu Erlang. B. 2. n. 14.

§§§ *Horn's Archiv*, 1812. Jan. recommended in syphilis.

injurious effects of arsenic taken internally, as mentioned by the Swedish physicians, * *C. W. Hufeland*, † *Thiebault*, ‡ *Reche*, § *Ebers*, || and others. Hence *K. L. Donner*, ¶ and *C. W. Hufeland* ** entirely rejected arsenic; and the Prussian government thought it necessary to prescribe a determined formula, and the necessary precautions for its employment. Meanwhile, the advantages of the external use of arsenic against cancer of the face were confirmed by *J. A. von den Steinen* and an anonymous observer. ††

P. F. Walther ‡‡ and *G. Zeviani* §§ investigated the effects of mercury in amaurosis and hydrophobia; and calomel was not superseded by any other internal remedy for the cure of croup. ¶¶

The efficacy of sugar of lead in asthenic hæmorrhages, from ulcers in the lungs especially, in combination with opium, was confirmed by *Auelang*, ¶¶ *J. H. Kopp*, *** *A. Osann*, ††† *Gistrén*, ††† the physicians of Philadelphia, §§§ and by *Wolf*. ||

The external application of tartar emetic, in the form of a salve, for exciting inflammation and an eruption in the skin, was first recommended by *J. F. Athenrieth* ¶¶¶ against the chinacough; but that it was not an infallible, though often a very efficient remedy, was proved by the observations of *Schneider*, **** *Kelch*, †††† *Nolde*, †††† and *Horst*. §§§§

Sulphat of iron was praised by *Marc* and some other

* *Hufeland's Journ.* B. 38. St. 1.

† *Hufeland's Journ.* B. 34. St. 5.

‡ *Journ. de Sedillot*, Tom. XXXII. May.

§ *Kausch's Memorialien der Heilkunde*, B. 1.

|| *Hufeland's Journ.* B. 37. St. 5. 4.

¶ Abh. über die höchst verderblichen Folgen des innern Gebrauchs des Arseniks im Wechselfieber. Berl. 1812. 8.

*** *Hufeland's Journ.* B. 32. St. 1.

†† *Siebold's Samml. chirurg. Beob.* B. 3. N. 11. 28.

‡‡ Abhandl. aus dem Gebiete der pract. Med. B. 1. Landshut, 1810. 8.

§§ *Memor. della soc. ital. Vol. X. Harles's Journ.* der ausl. Lit. B. 9. St. 1.

¶¶ *Sache in Hufeland's Journ.* B. 31. St. 1.

¶¶¶ *Hufeland's Journ.* B. 22. St. 1.

**** *Hufeland's Journ.* B. 29. St. 5.

††† *Dis. sistens saturni usum med. internum.* Jen. 1809.

‡‡‡ *Hufeland's Journ.* B. 33. St. 1. S. 144.

§§§ *Harles's Journ.* der ausl. Lit. B. 10. St. 1.

¶¶¶ *Hufeland's Journ.* B. 34. St. 4.

¶¶¶ *Versuche für die prakt. Heilk.* Th. 1.

¶¶¶ *Horn's Archiv*, 1808. B. 4. Heft. 2.

¶¶¶ *Hufeland's Journ.* B. 28. St. 4.

¶¶¶ *Hufeland's Journ.* B. 33. St. 4.

¶¶¶ *Hufeland's Journ.* B. 26. St. 2.

French physicians * in intermittent fever, and by C. Stanger † against consumptive coughs. Rich. Carmichael ‡ recommended the carbonate of iron in cancer; and E. Horn § praised the effects of iron in the mercurial disease.

The nitrate of silver was recommended anew by Fauchier || in epilepsy, and by R. Ponce ¶ in other convulsive diseases.

Lastly, gold itself was again tried, especially the muriate, which Odhelius ** praised, in doses of the quarter of a grain, given three times a day or oftener, in the most obstinate venereal cases.

The use of the external application of cold water in the cure of febrile diseases, which J. Currie particularly recommended, †† was confirmed by J. Stock, ‡‡ and R. Jackson, §§. It was found very useful in trismus by W. Dalrymple; || in scarlet fever by J. Reid, ¶¶ Paul Kolbany, *** Nasse, ††† Reich, and others; and in intermittent fever by Giannini, †††. It was particularly recommended in typhus by Hirsch, §§§ Kolbany, |||| E. Horn (Archiv. 1811. May), and most writers on the late camp-fever. An able review of this subject was given by A. F. Hecker (Annalen, B. 1. S. 48. f.).

C. Taylor ¶¶¶ wrote on the use of sea-water externally and internally, and S. Vogel published the new Annals of the Sea-

* Journ. de Sedillot, Tom. XXXIX. Sept.

† Medic. chir. Abh. der med. chir. Gesellsch. zu London, übers. v. Osann.

n. 2.

‡ Essay on the effects of carbonate of iron upon cancer. Dubl. 1806. 8.

§ Archiv. 1812. Jan.

|| Annal. de la soc. de méd. prat. de Montpellier, Tom. VII. 1806. Juin.

¶ Medic. transact. publ. by a soc. of phys. at London, Vol. IV.

*** Suensk Acad. Handl. 1813. P. II. p. 263.

†† Fernere Nachrichten von der glücklichen Anwendung des kalten Bades in dynamischen Fiebern, translated by F. H. Hegewisch. Leipz. 1807. 8.

‡‡ Medical collections of cold water as a remedy in certain diseases. Lond. 1806. 8.

§§ Exposition of the practice of affusing cold water on the surface of the body. Edinb. 1808. 8.

|| Edinb. Med. and Surg. Journ. 1805. n. 3.

¶¶ Med. and Phys. Journ. Vol. IX.

*** Beobachtungen über den Nutzen des lauen und kalten Waschens im Scharlachfieber, und fernere Nachrichten von der glücklichen Anwendung desselben. Presb. 1808. 8.—Abhandl. der phys. med. soc. zu Erl. B. 1.

††† Hufeland's Journ. B. 33. St. 4.

§§§ Hufeland's Journ. der ausländ. Liter. B. 10. St. 1.

|||| Hufeland's Archiv. 1808. B. 4. St. 1.

¶¶¶ Bemerkungen über den ansteckenden Typhus, Presb. 1811. 8.

¶¶¶ Remarks on sea-water. Lond. 1805. 8.

baths at Dobberan. * Tolberg praised the effects of the brine-bath (Soolbade). †

Directions for the use of mineral waters and baths in general were given by J. C. Meyer, ‡ F. Speyer, § and K. A. Zwielerlein, ||. Waitz described the subsequent effects of cures by these means. ¶ And C. W. Hufeland examined the principal medicinal springs of Germany in an excellent dissertation (Journ. B. 27. St. 1. f.). Some of the best descriptions and directions for the use of the German mineral waters, are those mentioned in the subjoined note. ** Those of France were described by B. Peyrilhe, †† and one in the Russian government Twer by J. H. Zech. ‡‡

The application of galvanism as a powerful stimulant in suspended animation, was recommended anew by Struve. §§ G. H.

* Neue Annalen des Seebades zu Dobberan. Heft. 1—7. Rostock, 1804—1810. 8.

† Hufeland's Journ. B. 26. St. 3.

‡ Der Rathgeber vor, bey und nach dem Bade. Pina, 1805. 12.

§ Ideen über die Natur und Anwendungsart natürlicher und künstlicher Bäder. Jena, 1805. 8.

|| Vorzüge der Curen in Bädern bey langwierigen Krankheiten. Gotha, 1811. 8.

¶ Hufeland's Journ. B. 24. St. 4.

** Reumont's analyse des eaux sulfureuses d'Aix la Chapelle, 1810. 8.;

Altwasser und seine Heilquellen, beschrieben von A. H. Hinze. Bresl. 1805.

8. A. H. Hinze Annalen der mineralischen Kuranstalt zu Altschulz, J. 1.

Bresl. 1810. 8. Baden, beschrieben von A. Schreiber, 1811. 8. Die Mineral-

quellen zu Bilitz, von F. A. Reuss. Wien. 1808. 8. Über die Mineralquellen

bey Bramstedt, von C. H. Pfaff. Altona, 1810. 8.; and on the same by

J. F. Suersten. Hamb. 1810. 8. K. A. Zwielerlein's neueste Nachricht vom

Bade Brückennau. Fulda, 1811. 8. Über die Gas- u. Schlammäder bey den

Schwefelquellen zu Eilen, von J. C. Gebhard, Berlin, 1811. 8. K. W. Böck-

manns Beschreibung der Gesundbrunnen und Bäder Gräfenbach, Petersthal und

Antropast. Karlsruhe, 1810. 8. Versuche und Beobachtungen mit dem Göttinger

Sauerbrunnen, von Ambarger. Offenburg, 1809. 8. Meisler's neueste Nach-

richt von Innau. Freyh. 1811. 8. Das Krambacher Heilbad, von J. E. Wetzler.

Angsb. 1811. 12. J. F. A. Koch's Erfahrungen über die Wirkungskräfte des

Gesundbrunnens und des Bades zu Lauchstädt Leipz. 1806. 8. H. M. Mar-

card über die kochsalzhaltigen Mineralwässer zu Pyrmont. Hamb. 1810. 8.

J. A. Albert über das Rehburger Bad in Hufeland's Archiv, 1811. Septemb.

J. Fensers freymüthige Briefe über Schwalbach. Frankfurt a. M. 1807. 8. Der

salinische Eisenquell im Selkethale am Harz, von K. F. Gräff. Leipz. 1809. 8.

Fabricius über den Selter Brunnen in Hufeland's Journ. B. 34. St. 5. F.

Weglers einige Worte über die Mineralquelle zu Tannenstein. Kobl. 1811. 8.

C. C. Gréve's Beschreibung des Gesundbrunnens zu Weilbach. Wiesbaden,

1810. 8. Fabricius Manuel du baigneur aux eaux de Weilbach, Paris, 1812.

8. Wipfeld am Main mit seinen Umgebungen. Nurm. 1813. 12. K. G.

Hinsie's Beschreibung des Wildenstein Bades. Freyberg, 1808. 8.

†† Tableau historique d'un cours d'histoire naturelle médicale, où l'on a

classé les principales eaux minérales de la France. Vol. 1. 2. Paris, 1805.

‡‡ Diss. de aqua Wissokoensis. Dorpat, 1804. 4.

§§ Hufel. Journ. B. 27. St. 4.

Schubert * praised it in deafness. F. B. Osiander † proposed small plates of silver and zinc, introduced under the eyelids, as a remedy in amaurosis. K. A. Wienhold ‡ recommended a very ingenious contrivance for the application of galvanism, by which the opposite streams are conducted to the eye by spirit of ants (Ameisengeist) and spirit of earth worms (Regenwurmgeist). G. A. Mongiardini and V. Lando § described the effects of galvanism on the production of stone in the bladder. Lately P. J. Westring || proposed increasing the galvanic power by means of metallic points of gold and silver.

V. Therapeutics and Practice of Medicine.

On general therapeutics, a classical text-book was published by P. J. Horsch ¶ inferior to which are the works of J. A. Schmidt, ** F. L. Augustin, †† C. Schöne, †† K. G. Naumann, §§ and even the abridgment of A. F. Hecker. || However, the new edition of the last author's Manual ¶¶ maintained its former reputation.

S. Hahnemann advanced a new maxim in therapeutics, derived from the principle, in itself true, that the medicinal stimulant often annuls the morbid one, which he extended to the revulsive effects of medicines, and, at the same time, established, that each distinct disease requires a corresponding remedy, capable of producing a similar action. This idea, which, thus extended, becomes absolutely false, and leads to gross empiricism, he denominated the *homöopathic* therapia. *** A. F. Hecker's ††† objections to this doctrine were answered in an unbecoming manner by F. Hahnemann. †††

- * Von der Anwendung des Galvanismus bey Taubgebornen. Leipz. 1805. 8.
† Abhandl. der phys. med. Soc. zu Erlangen. B. 1. N. 8.
‡ Ueber die Heilung eines zerstörten Auges und eine neue Anwendungsart des Galvanismus. Meissen, 1815. 8.
§ Mem. della soc. med. di emulaz. di Genua, Tom. 2. quadrim. 2. Harles's Journ. der ausl. Liter. B. 8. St. 2.
¶ Suenk. acad. handl. 1815. P. II. p. 18.
¶ Handb. der allgemeinen Therapie. Würzb. 1811. 8.
** Prolegomena zu der allgemeinen Therapie und Materia Medica. Wien, 1812. 8.
†† Handb. der medic. Therapie. Th. 1. Berl. 1808. 8.
‡‡ Versuch eines systematischen Entwurfs der gesammten Medicin. Th. 1. Generelle Therapie. Berl. 1806. 8.
§§ Allgem. Therapie. Leipz. 1808. 8.
|| Kurzer Abriss der Therapie. Berl. 1807. 8.
|| Therapie generalis, oder Handbuch der allgemeinen Heilkunde. Neue Ausgabe. Erl. 1805. 8.
*** Hufeland's Journ. B. 26. St. 2.—Organen der rationellen Heilkunde. Dresden, 1810. 8.
††† Annalen 1811. Jul.—Sept.
†††† Widerlegung der Anfälle Hecker's auf das Organen der rationellen Heilkunde. Dresd. 1811. 8.

Of practical compendiums, J. P. Frank's is the best; * the two volumes last published, contain the profluvia, dropsies, and retention of urine. The second volume of C. W. Hufeland's system was published. † That of A. H. Hecker ‡ is also a valuable text-book. Far less commendable are the productions of E. Horn, § Jos. Frank, ¶ and of C. E. Raschig. ¶¶ Those of C. F. Oberreich, ** and an anonymous author, †† are founded on the theory of excitement. F. W. v. Hoven's Manual †† and his Treatise on Fevers §§ follow the maxims of empiricism.

Among the numerous collections of practical observations, those made in clinical schools must be first noticed. J. V. v. Hiltenbrand explained the general principles of clinical practice excellently. || His observations, ¶¶ and those of C. W. Hufeland, *** J. C. A. Clarus, ††† P. L. Brera, ††† Baume, §§§ E. J. Thomassen a Thacssink, |||| J. N. Thomann, ¶¶¶ P. J. Horsch, **** J. Frank, †††† and F. Wendt, †††† are the best productions of this kind.

- * De curandis hominum morbis epitome lib. 5. P. 2. lib. 6. P. 1. Manch. 1807. Tubing. 1811. 8.
† System der praktischen Heilkunde der zweyte Band. Jena, 1805. 8.
‡ Kunst die Krankheiten der Menschen zu heilen. 4te Aufl. Th. 1—5. Erf. 1812, 1815. 8.
§ Anfangsgründe der medicinischen Klinik. B. 1. Erf. 1807. 8.
¶ Praxis medicæ universæ præcepta. Vol. I. Lips. 1811. 8.
¶¶ Handbuch einer innern praktischen Heilkunde. Heft 1—3. Leipz. 1808, 1810. 8.
*** Handbuch der Heilkunst. Th. 1—3. Riga, 1805, 1806. 8.
†† Versuch eines nach Grundsätzen der Erregungstheorie abgefaßten medicinisch-praktischen Leitfadens bey Heilung einiger Krankheitsformen. Th. 1, 2. Leipz. 1806, 1807. 8.
|| Handbuch der praktischen Heilkunde. B. 1, 2. Heilbronn, 1805. 8.
||| Versuch einer prakt. Fieberlehre. Nurnb. 1810. 8.
|||| Initia Institutionum Clinicarum, Vienna, 1807. 8.
¶¶ Ratio medendi in schola practica Vindobonensi. P. 1, 2. Vienn. 1809, 1812. 8.
**** Jahresberichte der polyklinischen Anstalt bey der Universität zu Berlin, 1811. f.
††† Annalen des klinischen Instituts in Leipz. 1810—1812.
†††† Annotazioni medico-pratiche sulle malattie trattate nella Clinica medica di Pavia. Vol. I. II. Crema, 1806. 4.
Rapporto di risultati ottenuti nella clinica medica di Padova. ann. 1.—3. Padov. 1810, 1811. 4.
§§§ Annales cliniques de Montpellier, 1810. 8.
||| Wasneningen omtrent de ziekten, welke in het Nosocomium clinicum van de hooze school te Groningen zyn behandeld. Groning. 1805. 8.
¶¶ Annalen der klinischen Anstalt zu Würzburg. Arnstadt, 1805. 8.
**** Annalen der klinisch-technischen Schule. Rudolstadt. 1809. 8.
†††† Acta instituti clinici universitatis Vindobensis. ann. 1. Lips. 1808—1812. 8.
†††† Annalen des klinischen Instituts zu Erlangen. Heft. 1. 2. Erlang. 1808, 1809. 8.

On the diseases of females, excellent works were published by E. v. Siebold, * J. C. G. Jörg, † and J. Hamilton. ‡ That of L. J. C. Mende § is less commendable.

On the diseases of children, the work of F. Jahn ¶ was most approved; those of J. J. v. Plenck, ¶ K. B. Fleisch, ** and A. Henke †† less, and that of G. W. Becker least of all. †† H. X. Boer's publication §§ is an excellent introduction to the diseases of childhood.

VI. Surgery.

K. Sprengel wrote the history of surgical operations; ¶ and an anonymous author commenced a history of surgery during the last ten years. ¶¶ Different views were taken of the relation of surgery to medicine. The opinions of J. A. Walther, *** who saw no mutual high connection of medicine and surgery; and, because the surgeon might dispense with the knowledge of the organization, would not allow the latter to be called even an art, but considered as being merely mechanical, were easily refuted. With more propriety J. C. Reil ††† limited surgery to the application of mechanical remedies only, and J. A. Schmidt-müller ††† justly esteemed surgery very highly, as did also A. F. Hecker. ¶¶¶

Several general works on surgery appeared. The third edition of B. Bell's system ¶¶ maintained its acknowledged value. C. Bell also published a system. ¶¶¶ B. Schreger's principles of

- * Handb. zur Erkenntnis und Heilung der Frauenzimmer-Krankheiten. Th. 1, 2. Erf. 1811, 1814. 8.
- † Handbuch der Krankheiten des menschlichen Weibes. Leipz. 1809. 8.
- ‡ Treat. of the management of female complaints. Edinb. 1809. 8.
- § Die Krankheiten der Weiber. Th. 1, 2. Leipz. 1810, 1811. 8.
- ¶ Neues System der Kinderkrankheiten. Rudolstadt, 1807. 8.
- ¶¶ Lehre von der Erkenntnis und Heilung der Kinderkrankheiten. Wien, 1807. 8.
- ¶¶¶ Handbuch über die Krankheiten der Kinder, B. 1—4. Leipz. 1805—1806. 8.
- †† Handbuch zur Erkenntnis und Heilung der Kinderkrankheiten. Frankf. 1809. 8.
- ††† Krankheiten der Kinder, ihre Kenntnis und Heilung. Pirna, 1807. 8.
- §§ Versuch einer Darstellung des kindlichen Organismus. Wien, 1813. 8.
- §§§ Geschichte der wichtigsten chirurgischen Operationen. Halle, 1805. 8.
- ¶¶ Neues Journal der Erf. St. 1.
- *** Die Chirurgie in ihrer Trennung von der Medicin. Nürnberg, 1806. 8.
- ††† Beiträge zur Beförderung einer Kurmethode auf psychischem Wege, B. 1. S. 161. f.
- †††† Beitr. zur Vervollkommen der Staatsarzneykunde. Landsh. 1806. 8.
- ††††† Wodurch reiste die Chirurgie ihrer gegenwärtigen Vollkommenheit entgegen? Berl. 1806. 8.
- ¶¶¶¶ Welches ist der wahre Zweck medic. chirurg. Lehranstalten? Berl. 1807.
- ¶¶¶¶¶ Lehrbegriff der Wundarzneykunst. B. 1—7. Leipz. 1804—1810. 8.
- ¶¶¶¶¶ A system of operative surgery, founded on the base of anatomy. Vol. I. II. Lond. 1808—1811. 8.

surgical operations are systematically arranged. * But the best work of this sort is C. B. Zang's † A. Richerand, ‡ Lassus, § E. Horn, ¶ W. E. Berger, ¶ J. A. Tittmann, ** and F. X. v. Rudolfer, †† endeavoured to explain the theory of surgical diseases.

The treatment of wounds was so much simplified by V. Kern, †† that he recommended universally cold or tepid water, with rest, as the sole dressing, and rejected entirely all cleaning of wounds. C. B. Zang criticised admirably this mode of treatment. §§ A. F. Hecker's thoughts on it deserve also to be read. ¶¶

The doctrine of bandages was treated by J. G. Bernstein, ¶¶ and systematically by B. G. Schreger. ***

Directions for the application of oil and warmth in the use of cutting-instruments, were given by B. Faust and Ph. Hunold. †††

Abernethy ††† and Rust §§ wrote on tumours. F. S. Alexander published some remarkable observations on such as compress the nerves, to which that described by Majon and Cerverelli also belongs. ¶¶ H. J. Brüninghausen ¶¶¶ removed encysted tumours of the neck, by ligature and escharotics, which, from containing a fluid, could not be extirpated.

H. F. Gräfe *** wrote of dilatation of the vessels. G. F. Harles derived from its various causes aneurism, which Scarpa,

- * Grundriss der chirurg. Operationen. Fürth, 1806. 8.
- † Darstellung heilkundiger blutiger Operationen. Th. 1, 2. Wien, 1814. 8.
- ‡ Nosographie chirurgicale. Tom. I. III. Paris, 1805, 1806. 8.
- § Pathologie chirurgicale. Tom. I. II. Paris, 1805, 1806. 8.
- ¶ Handb. der medic. Chirurgie. Th. 2. Berl. 1806. 8.
- ¶¶ Ueber die Erkenntnis und Cur der wichtigsten und häufigsten ausserlichen Krankheiten. Th. 1, 2. Erf. 1808, 1809. 8.
- ¶¶¶ System der Wundarzneykunst. Abthl. 1. 2. Zweyte Aufl. Leipz. 1809, 1810. 8.
- †† Kurzer Abriss der speciellen Chirurgie. Th. 1. Wien, 1812.
- ††† Avis aux chirurgiens pour les engager à accepter et à introduire une méthode plus simple, plus naturelle, et moins dispendieuse dans le pansement des blessés. Vienne, 1809. 8.
- §§ Würdigung der von Hrn. Kern in Vorschlag gebrachten neuen Methode Wunden zu behandeln. Wien, 1810. 8.
- §§§ Hecker's Annalen. Th. 1. S. 262. f.
- ¶¶¶¶ Lehre des chirurgischen Verbandes. Jena, 1805. 8.
- ¶¶¶¶ Plan einer chirurg. Verbandlehre. Erf. 1810. 8.
- †††† Ueber die Anwendung und den Nutzen des Oels und der Wärme bey chirurgischen Operationen. Leipz. 1806. 8.
- ††††† Med. chir. Beobacht. übers. von Meckel. Halle, 1809. 8.
- §§§§ Harles's Jahrb. Th. 1. S. 155. f.
- ¶¶¶¶ Chiron B. 1. St. 2.—Diss. de tumoribus nervorum. Leid. 1810. 8.
- ¶¶¶¶ Ueber die Exstirpation der Balggeschwulste am Halse. Würzb. 1805. 8.
- ††††† Angiectasis. Leipz. 1808. 4.

too generally, wished to attribute solely to the laceration of the muscular coat of the arteries. * *A. Winter* cured an aneurism by compression alone; † and on the subsequent dissection of the case, *P. E. Walther* ‡ made some interesting remarks on the cure. *Deschamps*, for a popliteal aneurism, operated on *Hunter's* plan. (Mem. de l'Institut. 1806.) *Fleury* § made the remark, in operating aneurism of the femoral artery, that it was necessary to tie the vessel below the tumour, and that the disease often cures itself by the effusion of the blood from the ruptured sac into the neighbouring cellular membrane. *Astley Cooper* performed a most remarkable operation for a carotid aneurism. ¶ The effects of ligatures on arteries, and the process of nature in suppressing hemorrhage from them when divided, was investigated by *J. F. D. Jones*. ¶

J. N. Rust was successful in his pathological and practical treatise on ulcers. ** *K. A. Weinhold* treated old cutaneous sores by metallic oxides. †† The dependence of obstinate ulcers of the feet, on a morbid state of the liver, and other viscera, was well exposed by *J. F. Reberisch* (*Horn's Archiv*. July 1811.) *Falconer* ‡‡ and *Latham*, §§ published new dissertations on the disease of the hip-joint.

On the treatment of wounds of the head. *F. J. Brunner* published an insignificant essay. ¶¶ That of *J. J. Canin* is of as little importance. ¶¶ *Larrey* trepanned at unusual places. *** *K. F. Gräfe* recommended some useful processes in this opera-

* *A. Scarpa* über die Pulsadergeschwülste. Uebers. von *Harles*. Zurich, 1808. 4.

† *Chiron*, B. 1. S. 357. f.

‡ *Chiron*, B. 2. S. 100.

§ *Journ. génér. de la soc. de méd.* Tom. XXVIII. n. 126. *Harles's Journ.* der ausländ. Lit. B. 10. St. 1.

¶ *Med. chir. Bemerk. einer medic. chirurg. Gesellsch. in London*, übers. von *Ozann*, n. 17.

¶ *Ueber den Proces, den die Natur einschlägt, Blutungen aus zerschnittenen Arterien zu heilen, und über deren Unterbindung.* Aus dem Englischen von *Spangenberg*. Hahnov. 1815. 8.

** *Heilkologie*. B. 1, 2. Wien, 1811. 8.

†† *Die Kunst veraltete Hautgeschwüre zu heilen.* Dresd. 1807. 8. Zweyte Aufl. 1810. 8.

‡‡ *Mem. of the med. soc. in Lond.* Tom. VI. Samml. für prakt. Aerzte. B. 23. S. 257.

§§ *Medic. transact. publ. by a soc. of physic. at London.* Tom. IV.

¶¶ *Vorschläge zu einer zweckmäßigen Heilart der Kopfverletzungen.* Dusseld. 1806. 8.

*** *Considérations sur le traitement de quelques plaies de tête.* Paris, 1811. 3. Denkwürdigk. S. 207.

tion. * It was successfully performed at Berlin for the cure of epilepsy. †

In regard to diseases of the eye, an introduction to their treatment was published by *K. Himly*. † *J. Wardrop* also described the morbid anatomy of the human eye. § *W. G. Benedict* ¶ edited a complete treatise on the inflammations of this organ. An insignificant treatise was published by *J. Spindler*. ¶ The purulent ophthalmia of children was described by *J. Ware* ** and *W. F. Dreyssig*. †† The Egyptian ophthalmia proved contagious in the English army, and occasioned many interesting inquiries. ‡‡ *P. Rubini* and *Cella* §§ made some curious remarks on an epidemic ophthalmia in Parma. For the treatment of hypopion, *P. F. Walther* gave untenable rules. ¶¶ *B. J. Beer* ¶¶ attempted to explain the formation of staphyloma from inadequate causes. *J. W. Heinlein* considered this disease partially. *** *G. A. Spangenberg* ††† examined more accurately the changes the cornea undergoes in it.

The indications for the formation of an artificial pupil, in cases of concretion of the iris, were accurately and fully given by *B. J. Beer*. ††† *J. A. Schmidt* reviewed the different methods of dividing, detaching, and cutting off part of the iris. §§§ *Fortenze* is less accurate. ¶¶¶ *K. Donegana* proposed, in this operation, a transverse division of the iris, to prevent its sub-

* *Hafslund's Journ.* B. 27. St. 2. B. 31. St. 5.

† *J. G. Theines* diss. sistens casum epilepsie per terebrationem cranii feliciter sanatae. Berol. 1811. 8.

‡ *Einleitung in die Augenheilkunde.* Jena, 1806. 8.

§ *Essay on the morbid anatomy of the human eye.* 1808. 8.

¶ *De morbis oculi humani inflammatoriis.* Lips. 1811. 4.

¶ *Ueber die Entzündungen der Augen und ihre Behandlung.* Würzb. 1807. 8.

** *Remarks on the purulent ophthalmia.* Lond. 1808. 8.

†† *Hufst.* Journ. B. 23. St. 3.

‡‡ *Edmonston* observ. on the varieties and consequences of ophthalmia. Edinb. 1806. 8. *W. Thomas* on the Egyptian ophthalmia. London, 1808. 8. *Moogardius*

in the *Mem. della soc. med. emulaz. di Genoa*, Vol. I. *Larrey's Denkwürdigkeiten*, S. 262. f.

§§ *Harles's Journ.* der ausländ. Lit. B. 10. St. 2.

¶¶ *Merkwürdige Heilung eines Eiterauges.* Landsh. 1806.

¶¶ *Ansicht der staphylomatösen Metamorphosen des Auges.* Wien, 1805. 8.

*** *Abb. der phys. med. Societät zu Erlangen*, B. 1. n. 7.

††† *Horn's Arch.* 1809. B. 1. Heft. 1.

§§§ *Ansicht der staphylomatösen Metamorphosen des Auges.* Wien, 1805. 8.

¶¶¶ *Schmidt und Himly's ophthalmol. Bibl.* B. 2. St. 1.

¶¶¶ *Considérations sur l'opération de la pupille artificielle.* Paris, 1807. 8.

sequent union with the ciliary ligament. * *P. Assalini* † and *Benj. Gibson* ‡ gave the latest instructions on this method.

P. F. Walther § described the diseases of the crystalline lens, and claimed, as his own discovery, the formation of cataract as a consequence of its inflammation, a circumstance previously mentioned by others. *Becquet* || made some good observations on the tremulous cataract and on the falling of the lens into the anterior chamber. *S. Cooper* ¶ published a good dissertation on the operations for cataract in general. *H. F. Elsässer* recommended *Scarpa's* method of couching; ** and *K. A. Wenhold* †† a peculiar modification of it.

Directed by a proposal originally made by *A. G. Richter*, and which was repeated by *J. C. Reil*, *W. H. J. Buchorn* was first led to a new method of operating cataract by puncturing the cornea. †† *K. J. M. Langenbeck* §§ and *K. F. Gräfe* || examined this method, and confirmed its easiness and utility. *J. B. v. Siebold* ¶¶ recommended a peculiar needle for it. But *Th. A. Weinhold* declared himself its opponent. ***

Useful treatises on the diseases of the nasal cavities and maxillary sinus, were published by *J. L. Deschamps*, ††† *P. F. Leinicker*, ††† and *K. A. Weinhold*, §§§

The preservation of the teeth and their diseases, were illustrat-

* Della pupilla artificiale. Milano, 1809. 8.

† Ricerche sulle pupille artificiali. Milano, 1811. 8.

‡ Practical observations on the formation of an artificial pupil in several deranged states of the eye. Lond. 1811. 8.

§ Abhandlungen aus dem Gebiete der prakt. Medicin. B. 1. Landsh. 1810. 8.

|| Journ. génér. de la soc. de médec. de Paris, tom. 27. n. 194. *Harlet's Journ. der ausl. Liter.* B. 10. St. 1.

¶ Critical reflections on several important practical points, relative to the cataract. Lond. 1805. 8.

** Ueber die Operation des grauen Staars. Stuttg. 1805. 8.

†† Anleitung den verdunkelten Crystallkörper im Auge des Menschen umzulegen. Meissen, 1809. Zweyte Aufl. 1812. 8.

‡‡ Die Keratonyxis. Magdeb. 1811.

§§ Prüfung der Keratonyxis. Götting. 1811. 8.

|| Diss. de cataractae reclinatio et keratonyxis, resp. *J. F. E. Spierl.* Berol. 1811. 8. *Hecker's Annalen*, B. 8. S. 341.

¶¶ Salz. med. Zeit. 1812. B. 1. S. 277.

*** Nachrichten zur Anleitung den verdunkelten Crystallkörper umzulegen. Meissen 1812. 8.

††† Abh. über die Krankheiten der Nasenhöhle. Aus dem Franz. von *J. F. Dörner*. Stutt. 1805. 8.

§§§ Diss. de sinu maxillari ejusque morbis. Wirceb. 1809. 8.

§§§ Ideen über die abnormen Metamorphosen der Highmore's Höhle. Leipz. 1810. 8.

ed by *K. Schmidt* * and *J. F. Gallette*.† *G. W. Becker's* publication ‡ is scarcely worth mentioning.

A remarkable and successful operation of an enormous hare-lip was described by *J. H. G. Oltmar*.§ *J. B. v. Siebold* made some observations on the amputation of preternatural large tongues. (*Chiron*. B. 1. St. 3.) In the same volume were inserted the observations of *A. Inglis* on the ligature of diseased portions of that organ.

Himly, without knowing of *A. Cooper's* previous operation, punctured (1805) the membrana tympani in deafness from closure of the Eustachian tube. However, he did not dissemble that this operation could be of no service in deafness from other causes, and that the puncture easily closed again. || *Mauvois* and *Celliez*, used a trocar to prevent its healing up quickly, (*Chiron*. B. 1. St. 3.), and restored the hearing completely by this operation. *Michadis* in Marburg, and *Hunold* in Cassel, made the puncture with success.¶ But *Hufeland* pointed out the evil that might arise from wounding the chorda tympani, and stated the operation to have been performed fruitlessly in the Berlin institution for the deaf and dumb. ** The observations of *C. P. Nasse*, †† and *J. S. Beck*, †† put proper limits to the praises bestowed on this operation, particularly by *Hunold*. *J. F. Fuchs* §§ would only puncture where, with a morbid effusion of fluid into the tympanum, the Eustachian tube is not present. He dreaded no bad effects from wounding the chorda tympani, but greatly the wax's passing through the puncture into the tympanum. *Hesse* recommended the extraction of diseased teeth in deafness. ||

D. K. J. Merrem's proposal to extirpate the pylorus in incurable indurations of it, shews how little the surgeon dreads the most difficult operations. ¶¶

* Theorie und Erfahrung über die Zähne. Zweyte Auflage. Leipz. 1807. 8.

† Blicke in das Gebiet der Zahnzneykunde. Mainz 1810. 8.

‡ Ueber die Zähne und die sichersten Mittel sie zu erhalten. Leipz. 1808. 8.

§ Nachricht von einer ausserordentlichen Hasenscharte. Helmst. 1805. 8.

|| Salz. med. Zeit. 1806. B. 4. S. 37. f.—*Hufeland's Journ.* B. 25. St. 4. S. 175.

¶ *Hufeland's Journ.* B. 24. St. 2.

** *Hufeland's Journ.* B. 24. St. 3.

†† *Hufeland's Journ.* B. 25. St. 4.

‡‡ Diss. de tympani perforatione in surditatis cura cautius rariusque adhibenda. Erl. 1806. 8.

§§ Disquisitiones de perforatione tympani. Jen. 1809. 4.

|| *Hufel. Journ.* B. 39. St. 2.

¶¶ Animadversiones quaedam chirurgicae. Giess. 1810. 4.

F. K. Hesselbach described more accurately the origin and treatment of inguinal hernia. * J. Hull wrote a good dissertation on femoral hernia. (Chiron, B. 2. St. 1.) The operations for inguinal and femoral hernia were described by F. X. Rudtorffer.† F. W. G. Fritschler investigated the occurrence and causes of hernia of the cecum.‡ Classical works on hernia were published by A. Cooper, § A. Scarpa, || and S. T. Soemmerring. ¶ Sander twice met with the rare case, where, without being congenital, the intestine was contained in the tunica vaginalis testis. (Chiron, B. 3. St. 1.) B. G. Schreger ** made some excellent remarks on hydrocele complicated with hernia, and on congenital hydrocele.†† Ingen observed an encysted hydrocele of the spermatic cord.‡‡ Larrey described his plan of radically curing hydrocele by the introduction of a piece of an elastic catheter. §§ H. J. Brunninghausen's popular instructions on ruptures and the use of trusses deserve praise. ||

Barlow examined the different operations for lithotomy, and even recommended the high apparatus in certain circumstances, endeavouring to improve the instruments by a concealed bistoury of his own.¶¶ In Vienna, Pajola's method attracted a great deal of attention, though it must be owned the use of Le Cat's lithotomy knife has many inconveniences. It was allowed the advantage of permitting the sure evacuation from the bladder of all stony concretions. F. X. Rudtorffer accurately criticised this method.*** Klein made some interesting remarks on his plan.†††

* Anatomisch-chirurgische Abhandl. über den Ursprung der Leistenbrüche. Würzburg, 1806. 4.

† Abhandl. über die einfachste und sicherste Operations-Methode eingesperrter Leisten- und Schenkelbrüche. B. 1. 2. Wien, 1805, 1808. 8.

‡ Observ. in hernias, præcipue intestini caeci. Tubing. 1806. 8.

§ Die Anatomie und chirurgische Behandlung der Leistenbrüche und angeborenen Brüche. Uebersetzt von Krutige. Bresl. 1809. fol.

|| Sull' ernie. Milan. 1809. fol.

¶ Ueber die Ursache, Erkenntnis und Behandlung der Nabelbrüche. Frkf. 1811. 8.

** Horn's Archiv, 1809. B. 1. Heft. 1.

†† Horn's Archiv, B. 3. Heft. 2.—Abb. der. phys. medic. Societät zu Erlangen, B. 1. S. 357. f. Schreger chirurg. Versuche, B. 1. Nurnb. 1811. 4.

‡‡ Chiron, B. 1. St. 3. und J. B. v. Siebold's Samml. von Beobacht. B. 3. N. 5.

§§ Denkwürdigkeiten, S. 265.

|| Gemeinnütziger Unterricht über die Brüche, den Gebrauch der Bruchbänder u. s. f. Würzb. 1811. 8.

¶¶ Chiron, B. 2. St. 3.

*** Abhandl. über die Operation des Blasensteins nach Pajola's Methode. Leipz. 1808. 4.

††† Loder's Journ. B. 4. St. 4.

Robert Allan* opposed the use of the gorget. J. Thomson recommended the method of Douglas and Cheselden anew.† Tregeran related Guerin's procedure, and described the improvements on it,‡ which, with proper alterations, C. F. Michadis also recommended.§ To alleviate the pain of stone, B. G. Schreger praised the injection of warm water.¶ F. v. P. Gruithuisen ¶¶ proposed diminishing and totally removing calculus from the bladder by the injection and affusion (Perfundiren) of water and dissolvents.

C. F. Dörner made some judicious observations on the treatment of strictures in the urethra (Chiron, B. 1. St. 2.). Petit** recommended the application of nitrate of silver by means of a bougie. J. H. Thaut†† and B. G. Schreger ‡‡ investigated amputation of the penis; the latter recommended removing the member, by repeated tugs, close to the ossa pubis. He also published an excellent dissertation on indurations of the anus, which are different from hemorrhoidal swellings; and described a new method of applying the ligature in fistula ani, §§ on which operation, one of his pupils, J. B. J. Berndorff, had previously given a more literary essay. ||| With this, Larrey's method ¶¶ ought to be compared.

A new work on fractures and dislocations in general was published by L. Lämmerhirt;*** and another on fractures specially by L. Hampe.††† P. J. Leydig ‡‡‡ published a description of his contrivance for raising patients with fractures. A new machine for reducing dislocations of the shoulder was recommended by J. F. Warnecke, at Nurnberg, in 1810; and another for the same purpose by J. F. Freytag, at Chemnitz, also in 1810. A very useful dissertation on fractures of the olecranon, with a new method of treatment, was published by J. Feiler, at

* Treat. on the operation of lithotomy. Edinb. 1808. fol.

† Observ. on lithotomy. Edinb. 1808. 8.

‡ Chiron, B. 2. St. 1.

§ Erwa über den Blasensteinschnitt. Marb. 1813. 4.

¶ Horn's Archiv, 1809. B. 2. Heft. 1.

¶¶ Salz. med. chirurg. Zeit. 1813. B. 1. S. 289—331.

** Journ. de Sedillot, Tom. XLII. Nov.

†† Diss. de virgae virilis statu sano et morbo ejusdemque imprimis amputatione. Wirceb. 1808. 4.

‡‡ Chirurg. Versuche, B. 1. Nurnb. 1811. 8.

§§ Chiron, B. 3. St. 1.

||| Diss. de ligatura fistulae ani. Erl. 1806. 8.

¶¶ Denkwürdigk. S. 389. f.

*** Taschenbuch über Beinbrüche und Verrenkungen. Berl. 1805. 8.

††† Ueber die Entstehung, Erkenntnis, Beurtheilung und Kur der Knochenbrüche. Brem. 1805. 8.

‡‡‡ Krankenheber bey Knochenbrüchen, Mainz, 1812. 4.

Salz. in 1811. *J. M. Laurer* * recommended a new kind of splints made of lime-tree, and considered the best method of treating oblique fractures of the thigh. *M. Hagedorn* accurately illustrated the diagnosis and treatment of fractures of the neck of the thigh bone; † and *J. N. Sauter* ‡ described a method of curing fractures, without the use of splints. *J. G. Heine* made some excellent observations on artificial feet, and the way of using them. §

J. C. G. Jörg ¶ gave a description of club-feet, arising from continued abduction, and the best method of curing them by *Scarpa's* contrivance. At the same period, *E. F. Laiblin* recommended *Autenrieth's* machine for this purpose. ¶ The treatment of curvatures of the spine and limbs was improved by *Jörg*, ** whose certain method gained him extensive reputation. Although *Thilenius* had previously cured the club-foot by dividing the tendo Achilles, yet the proposal of *C. F. Michaelis* was new, by incision of the tendons to relieve stiffness of the joints, arising not from real ankylosis, but from preceding inflammation and inflammation of the muscles. ††

Amputation was submitted anew to an accurate examination by *C. J. M. Langenbek*, †† and *K. F. Gräfe*, §§ *Larrey* admirably illustrated the advantages of immediate amputation on the field of battle, ¶¶ and proved the benefit of amputation at the joints; which was also done by *P. F. Walther*, ¶¶ *G. H. Wachter* accurately described amputation at the knee-joint, *** and *W. Fraser* that at the shoulder. †††

* *Marsini's Journ.* B. 4. St. 3.

† Abhandl. über den Bruch des Schenkelbeinhalses. Leipzig. 1808. 8.

‡ Anweisung die Beinbrüche der Gliedmassen, vorzüglich die complicirten, und den Schenkelbeinhalsbruch, nach einer neuen, leichten, einfachen und wohlfeilen Methode, ohne Schienen, sicher und bequem zu heilen. Constanz, 1812. 8.

§ Beschreibung eines neuen künstlichen Fusses für den Ober- und Unterschenkel. Würzburg. 1811. 8.

¶ Ueber Klumpfüsse und eine leichte und zweckmässige Heilart derselben. Leipzig. 1806. 4.

¶ Diss. de sanatione talipedum varorum ad virilem ætatem provecturum. Tub. 1806. 8.

** Ueber die Verkrümmungen des menschl. Körpers und eine rationelle und sichere Heilart derselben. Leipzig. 1810. 4.

†† *Hufeland's Journ.* B. 25. St. 5.

‡‡ Bibliothek für die Chirurgie, B. 3. St. 2.

§§ Normen für die Ablösung grösserer Gliedmassen. Berl. 1811. 4.

¶¶ Denkwürdigk. S. 259. f.

¶¶ Abhandlungen aus dem Gebiete der prakt. Medicin, B. 1. Landsh. 1810. 8.

*** Diss. de articulis exstirpandis. Groning. 1810. 8.

††† Essay on the shoulder-joint-operation. Lond. 1813. 8.

VII. Medical Police.

Among the general works on medical jurisprudence and medical police, the fifth volume of *J. P. Frank's* classical publication * merits particular mention; likewise his first supplementary volume, published at Tübing. 1813, 8vo. The productions of *T. A. Rudol.* † *F. Kornatowsky*, ‡ and *Franz Bene*, § are insignificant, and that of *F. A. Röders* ¶ does not render superfluous the principal work on this subject. The chief parts of medical police were lately arranged in alphabetic order by *J. F. Niemann*. ¶¶

Collections of tracts, notices, and ordinances, concerning health and medical police, were published by *J. A. Schmidt Müller*, ** *J. Niederhuber*, †† *J. H. G. Schlegel*, †† *J. C. F. Scherf*, §§ *C. Knappe*, *A. F. Hecker*, ¶¶ *J. H. Kopp*, ¶¶ *F. L. Augustin*, *** *S. Härl*, and *M. Jacobi*. †††

The value of medicine and physicians, as connected with national administration, was considered by *C. F. L. Wildberg* ††† and *G. v. Wedekind*. §§§ An anonymous author ¶¶ published on

* System der medicinischen Polizey. Tübing. 1814. 8.

† Von dem Einfluss der Staatsarzneykunde auf die Staatsverwaltung. Rudolstadt 1806. 8.

‡ Uebersicht der gesammten Staatsarzneykunde. Zerbst, 1805. 8.

§ Elementa police medicæ. Bud. 1807. 8.

¶ Von der Sorge des Staats für die Gesundheit seiner Bürger. Dresd. 1806. 8.

¶ Handbuch der Staatsarzneywissenschaft. B. 1. 2. Leipzig. 1813. 8.

** Beyträge zur Vervollkommnung der Staatsarzneykunde. Landshut, 1806. 8.

†† Beyträge zur Cultur der medicinischen und bürgerlichen Bevölkerungskunde. München, 1803. 8.

‡‡ Materialien für die Staatsarzneywissenschaft und prakt. Heilkunde Samml. 1—8. Jena, 1800—1809. 8.

§§ Allgemeines Archiv der Gesundheits-Polizey. B. 1. Hannov. 1805, 1806. 8.

¶¶ Kritische Jahrbücher der Staatsarzneykunde für das neunzehnte Jahrh. B. 1—2. Berl. 1806—1809. 8.

¶¶ Jahrbuch der Staatsarzneykunde. J. 1—5. Frkf. 1808—1813. 8.

*** Repertorium für die öffentliche und gerichtliche Arzneywissenschaft. St. 1. Berlin, 1810. 8.

††† Jahrbücher des Sanitätswesens im Königreich Bayern. B. 1. Landsh. 1810. 8.

‡‡‡ Kurze Anweisung, wie das Publicum von der Ausübung der Arzneywissenschaft durch die Aerzte den möglichst mindesten Vortheil ziehen kann. Göttingen, 1808. 8.

§§§ Ueber den Werth der Heilkunde. Darmst. 1812. 8.

¶¶¶ Briefe medicinischen Inhalts. Riga, 1808. 8.

this subject some useful truths, in a clear and candid manner. König's essay is insignificant.*

On the education of physicians, P. J. Horich gave an excellent essay, † and K. Paulus another ‡ of equal merit. A preceding writer, on the contrary, keeps within the doctrines of the philosophy of nature. § True and useful remarks on the necessity of secondary schools for practical physicians, and on the disadvantage of separating medicine from surgery, were made by A. F. Nolde. ¶ The education of country practitioners, which Nolde proposed to entrust to these special schools, J. C. Reil previously thought (we can scarcely believe seriously) ought not to be at all scientific, and gave a description of learned physicians, which, for the honour of mankind, we hope is not often to be met with. The absurdity of this was clearly shewn by C. W. Hufeland, ¶ who, notwithstanding, subsequently** proposed to permit the clergy to practise medicine in the country, which actually was allowed in Sweden at the diet of 1809. †† To this place belongs Osthoff's excellent essay. †‡ That of A. M. Vering §§ is insignificant. Stütz, || and before him Adamacher, then C. F. Waldburg, ¶¶ and recently G. v. Wedekind,*** opposed Reil's erroneous ideas. The Philosophical Society at Göttingen having made this the subject for a prize-essay in 1810, gave occasion to a valuable refutation from L. H. W. Münchmeyer. †††

The Prussian ordinances concerning medical police were collected by J. C. G. Liebecke; ††† the Austrian by P. J. v. Ferro. §§§

* Der Arzt, wie er ist und wie er seyn sollte. Zurich, 1806, 8.

† Ueber die Bildung des Arztes als Klinikers und als Staatsdieners. Würzb. 1807, 8.

‡ Darstellung einiger Hauptmomente aus der Heilkunde zur Bildung prakt. Aerzte. Stuttg. 1811, 8.

§ Briefe über das Studium der Medicin. Leipzig, 1805, 8.

¶ Die Schulen der Aerzte. Braunschw. 1809, 8.

¶¶ Hufel. Journ. B. 21, St. 1.

** Hufel. Journ. B. 29, St. 5.

†† Hufel. Journ. B. 23, St. 6.

†‡ Ueber die Verhältnisse des Geistlichen zum Arzte und dem Kranken. Berl. 1806, 8.

§§ Versuch einer Pastoral-Medicin. Münster, 1809, 8.

|| Hufeland's Journ. B. 26, St. 1.

¶¶ Knapp's und Hecker's krit. Jahrb. der Staatsarzneykunst, Th. 1.

*** Ueber den Werth der Heilkunde. Darmstadt, 1812, 8.

††† Ueber die beste Einrichtung des Medicinalwesens für Flecken und Dörfer. Halberst. 1811, 8.

§§§ Auszüge aus den kön. preuss. Polizey-Gesetzen in Beziehung auf Gesundheit und Leben. Magdeb. 1805, 8.

§§§ Sammlung aller Sanitäts-Verordnungen im Erzherzogthum Oesterreich. Wien, 1807, 8.

J. E. Wetzel published first a project,* and then a description, † of that of Bavaria. A. J. Schutz wrote a successful prize essay, on the best arrangement of the medical profession for Suabia. ‡ Medical ordinances were published in Saltzburgh § and Baden. || The medical laws of Mecklenburgh Schwerin were collected by G. H. Masius. (Rostock, 1811, 4to.)

The miserable state of the medical constitution in France was portrayed by G. v. Wedekind, in his work already referred to, and Schutes ¶. The laws and ordinances of the French government were collected and published by J. C. Renard. *

A reform of the medical police in England was proposed by Ed. Harrison; but the proposal failed, from the London College of Physicians being solely entitled to regulate the practice. ††

In regard to particular improvements in medical police, we consider the precautions against contagious diseases to be the chief. The small-pox, once a frightful scourge, is extirpated, by the universal extension of vaccination. Compulsive measures and penalties for neglect of vaccination were ordered by the German governments, †† and these measures approved by J. E. Wetzel §§ J. G. Bremsen |||| also proposed punishing the omission of it with loss of civil honour; and to commit to the country clergy, in general, the extending it by word and deed,—a charge they have actually undertaken in several states. One of the best and most judicious authoritative ordinances for the practice of vaccination is the Austrian of 1808, ¶¶ with which that published in Saltzburgh corresponds. *** In the kingdom of Westphalia, likewise, vaccination was ordained by law. †††

Foreign states promoted the inoculation of cow-pox with great zeal; the Danish government with uncommon energy.

* Entwurf der medicinischen Einrichtung für die kurpfälzischen Staaten. Ulm, 1805, 8.

† Darstellung des Medicinalwesens von Bayern. Augsburg, 1809, 2.

‡ Ueber die besten Einrichtungen des Medicinalwesens in Schwaben. Manzb. Th. 1, 2, 1808, 8.

§ Salz. med. Zeit. 1805, B. 1, S. 353.

|| Salz. med. Zeit. 1805, B. 2, S. 316.

¶ Salz. med. Zeit. 1812, B. 1, S. 188, f.

** Sammlung der Gesetze und Verordnungen. Frankreichs, in Bezug auf Aerzte, Wundärzte und Apotheker. Mainz, 1812, 8.

†† Edinb. med. and surg. Journ. Vol. II, p. 487, 489.

‡‡ Bayer'sche Verordnung vom 26. Aug. 1807, in der Salz. medic. Zeit. 1807, B. 4, S. 8.

§§ Aktenstücke über die Schutzpocken-Impfung in der bayerischen Provinz. Schwaben. Ulm, 1807, 8.

¶¶ Die Kuhpocken, als Staatsangelegenheit betrachtet. Wien, 1806, 8.

*** Salz. med. Zeit. 1808, B. 4, S. 219.

††† Salz. med. Zeit. 1809, B. 1, S. 121.

†††† Nolde in Hufeland's Journ. B. 30, St. 7.

Hence, already, in 1805, not a single child died of small-pox in Copenhagen.* In France, where, at first, there was great opposition by the profession, this beneficial discovery became subservient to the most infamous despotism, which preserves the lives of men, only to sacrifice them at its pleasure. The report of the committee of the National Institute on this subject deserves to be read.† Connected with this are the ordinances of the French government for the Lower Rhine,‡ and for Illyria.§ F. G. Friess|| described the passionate and disgraceful controversies on the value of vaccination which were carried on in Great Britain, till the decision of the College of Physicians, on the 8th July 1807, put an end to the dispute. Lately Heberden finally allowed, that the mortality among children has diminished by vaccination, as 13 : 12.¶

J. Reimann** related how it has extended even in Siberia; W. Scott†† on the coast of Coromandel; and H. Lichtenstein on the southern point of Africa.‡‡

The relation of cow-pox to other diseases was better determined, and more knowledge obtained on the nature of the virus. The difference of genuine and spurious cow-pox was established by G. Ueberlacher, §§ Hardege, ||| and J. Thornton.¶¶ Charcoal was recommended for preserving the efficacy of the vaccine matter by K. F. Auber,*** who observed, that quartan fever was cured by that which vaccination occasions. G. Ueberlacher††† shewed how inoculation can be performed with the scab of the cow-pox. A. Carl invented an inoculating instrument.‡‡‡ Some good observations on the relation of cow-pox to other eruptive diseases were made by A. F. Schutz§§§ and by P. J. Horsch.||||

* Pfaff im neuen nord. v. Archiv, B. 1.

† Salz. med. Zeit. Ergänz. s. S. 401. f.

‡ Salz. med. Zeit. 1811. B. 1. S. 109.

§ Salz. med. Zeit. 1811. B. 1. S. 141.

|| Versuch einer historisch-kritischen Darstellung der Verhandlungen über die Kuhpocken-Impfung in Grossbritannien. Breslau, 1809. 8.

¶ Med. chirurg. transact. publ. by a medico-chir. soc. at London. Vol. IV.

** Salz. med. Zeit. 1807. B. 1. S. 186.

†† Edinb. Med. and Surg. Journ. 1815. p. 307.

‡‡ Hafslund's Journ. B. 31. St. 1.

§§ De vaccina antivariolosa epitome. Vienna. 1807. 8.

||| Hof. Journ. B. 23. St. 2.

¶¶ Preuves de l'efficacité de la vaccine; trad. par Duffour. Paris, 1807. 8.

*** Découverte nouvelle d'un procédé simple et facile, pour conserver pendant plusieurs années le fluide vaccin intact. Paris, 1805. 8.

††† Nachricht über die Wirksamkeit und Nützlichkeit der Kuhpocken-Impfung mit dem Scharfe. Wien, 1807. 8.

‡‡‡ Art zu impfen. 1807. 8.

§§§ Hafslund's Journ. B. 29. St. 1.

|||| Annalen der klinischen Schule. Heft 2.

G. P. Michaelis* related a case of vaccine inoculation, accompanied by general cutaneous redness, of which the child died. It being pretended in England, that, in some instances, the natural-pox had taken place after vaccination, G. F. Mübry translated R. Willan's dissertation on the cow-pox inoculation. (Göttingen, 1808.) In it are related cases in detail of the appearance of small-pox subsequent to vaccination; but, as in these the eruption scabbied on the sixth day from its appearance, Willan concluded that small-pox after cow-pox does not follow its usual course, the disposition to it being destroyed by vaccination. Wendelstadt† also observed, in 1807, the natural pox take place a year and a half after vaccination. Mübry, in November 1808, saw an eruption of small-pox in a child which had passed through cow-pox in 1804; here also the scabbing followed on the sixth day.‡ Hereupon E. L. Heim§ declared this eruption to have been spurious small-pox; but Mübry, in a reply,|| held it for modified small-pox, because its virus, by inoculation, reproduced genuine small-pox. In Berlin, where a similar case happened, Bremer and Zencker¶ considered the eruption as spurious small-pox. The last work of L. Sacco** on cow-pox, grease, and sheep-pox, determines the relations of these animal eruptions, the chemical and microscopical constitution of the vaccine virus, and informs us of the great success of vaccination in Italy. Primitive cow-pox, which Sacco also observed, were discovered in Germany by Bremer, Fischer, and Mende.††

The inoculation of measles, first tried by Home, was performed successfully with the blood of the eruption, by F. E. Holst.‡‡

The means of preventing the spreading of the plague and yellow-fever were considered by F. v. Schraud, §§ Fr. L. Augustin, |||

* Hafslund's Journ. B. 30. St. 6.

† Samml. medic. und chir. Aufsätze, B. 2. K. 5.

‡ Hofsl. Journ. B. 28. St. 5.

§ Horn's Archiv, 1809. B. 7. Heft. 2.

|| Hafslund's Journ. B. 30. St. 2.

¶ Horn's Archiv, 1811. März.—Heim in the same work for Sept.

** Neue Entdeckungen über die Kuhpocken, die Maske und die Schaafpocken. Aus dem Engl. von W. Sprengel. Leipz. 1812.

†† Hofsl. Journ. B. 35. St. 5.

‡‡ Salz. med. Zeit. 1811. B. 1. S. 205. f.

§§ Vorschriften der inländischen Polizey gegen die Pest und das gelbe Fieber. Wien, 1805. 8.

||| Was hat Deutschland und insonderheit der Preuss. Staat vom gelben Fieber zu fürchten, und welche Mittel sind gegen die Ausbreitung dieser Krankheit zu ergreifen? Berl. 1805. 8.

J. G. Langermann,* J. Feiler,† B. S. Nau,‡ and C. E. Harles.§

As a general means of destroying contagion, Guyton Morveau's method of producing muriatic acid vapours was recommended, and proved by experience. ¶ This means, with other preventive measures, was recommended by C. J. Kitah, on the appearance of the camp-fever of 1806-7; ¶ and on that of 1809, by P. K. Hartmann,** and M. J. Gutberlet. †† P. A. Castberg ‡‡ proposed various regulations. And in the last camp-fever, L. W. Gilbert §§ and A. F. Gräfe, || recommended anew Guyton Morveau's method.

G. Bicker again exposed the harm of having burying-grounds in towns. ¶¶ The means to be employed in suspended animation were well and clearly explained by J. C. Flacisland.*** Portal described the treatment of asphyxia from mephitic gases. ††† The reports of the Hamburg Humane Society are very instructive; ††† likewise the publication of J. H. M. Popp. §§§

* Ueber das gelbe Fieber, was Deutschland davon zu besorgen, und dagegen für Vorkehrungen zu treffen hat? Hof, 1805. 8.

† Aufruf an die sämtl. Regierungen, Polizeybehörden und Aerzte Deutschlands in Hinsicht auf die gegen die gelbe Pest zu treffenden Vorkehrungen. Nürnberg. 1805. 8.

‡ Entwurf einer Polizeyverordnung gegen die weitere Verbreitung der westindischen Pest. Ffm. 1805. 8.

§ Die gerechten Besorgnisse und die gegründeten Vorkehrungen Deutschlands gegen das gelbe Fieber. Nürnberg. 1805. 8.

¶ Abhandlung ueber die Mittel die Luft zu reinigen, der Ansteckung vorzukommen und die Fortschritte derselber zu hemmen. Aus dem Franz. von F. J. Martens; nebst einem Anhang von C. F. Buchholz. Weimar, 1805. 8.

¶ Was soll man in den jetzigen Kriegszustand thun, um sich gegen die Gefahren des Nerven-oder Faulfiebers zu schützen? Leipz. 1807. 8.

** Sicherungsanstalten und Verwahrungsmittel gegen ansteckende Nerven- und Faulfieber. Olmutz, 1810. 8.

†† Versuch über die Sicherungsanstalten gegen die Entstehung und Ausbreitung contagiöser Krankheiten unter den Soldaten im Felde. Würzb. 1811. 8.

‡‡ Forslag til Mediamapolitik under Epidemiers Grænsen. Kjöbenhavn, 1809.

§§ Für jeden verständliche Anweisung, wie man es anzufangen habe, um bey blutigen Fieber-Epidemien aller Art sich gegen Ansteckung zu schützen. Leipz. 1815. 8.

|| Die Kunst sich vor Ansteckung bey Epidemien zu sichern. 12. Berl. 1814.

¶¶ Von den Nachtheilen der Begräbnisse in Städten. Brem. 1811. 8.

*** Ueber die Behandlung der Scheintodten. Carlsruhe, 1806. 8.

††† Instruction sur le traitement des asphyxies par les gaz méphitiques. Paris, 1808. 8.

††† J. A. Günther's Geschichte und Einrichtung der Hamburgischen Rettungsanstalten. Hamb. 1808. 8.

§§§ Das allgemeine Rettungsbuch von J. H. M. Popp. Pymont, 1809.

Measures for the better management of mad-houses were proposed by J. G. Reil, in an appendix to a translation of *Mason Cox's* practical observations on insanity, published at Halle, 1811, 8vo. He prefers the public to the private institutions. Of the latter there are several in England; one in particular at York, of which S. Tuke has given an admirable description.* *G. Nasse Hill's* essay on the prevention and cure of insanity, Lond. 1813. 8vo. is also to be noticed here.

B. Medical Jurisprudence.

Among the text-books on this subject, J. B. Metzger's compendium † still maintains, if not the first, at least a very distinguished place. With him vies C. F. Wildberg, ‡ who has incontestably given more references, and has carried the investigation of some subjects farther. G. H. Massius § is only remarkable for a different arrangement of the subject, and an affected philosophical language. A. Henke || likewise attempted a different arrangement, and to have something peculiar, digressed into the science of laws. Still more insignificant are *Fr. Bene's* *Elementa Medicinæ Forensis*. Bud. 1811. 8.

Single contributions were given by W. F. W. Klose, ¶ W. J. Schmitt, B. L. Bachmann, †† K. Küttlinger, ** and F. G. H. Fielitz. ††

Judicial dissections constitute a chief practical part of this department. And to these, A. K. Hentelbach †† gave an excellent guide; with which that of M. Hafner §§ cannot bear a comparison. But that of T. G. A. Roese, || however, still preserves its distinguished value. As no improvement of the medical jurisprudence in the kingdom of Saxony had taken place, F. G.

* Description of the Retreat, an institution near York for insane persons. York, 1813. 8.

† Kurzgefasstes System der gerichtlichen Arzneywissenschaft. 4te Auflage, von C. G. Gruner. Königsb. 1814. 8.

‡ Handbuch der gerichtl. Arzneywissenschaft. Berl. 1812. 8.

§ Lehrbuch der gerichtl. Arzneykunde für Rechtsgelehrte. Th. 1. 2. Altona, 1810, 1812. 8.

|| Lehrbuch der gerichtlichen Medicin. Berl. 1812. 8.

¶ Beyträge zur gerichtl. Arzneykunde. Bresl. 1811. 8.

** Einige auserlesene medicinisch-gerichtliche Abhandlungen. Nürnberg. 1815. 4.

†† Archiv der gerichtlichen Arzneywissenschaft. St. 1. Leipz. 1811. 8.

‡‡ Vollständige Anleitung zur gesetzmäßigen Leichenöffnung. Würzburg, 1812. 8.

§§ Neues und nützliches Taschenbuch für Beamte, Aerzte und Wundärzte. Augsb. 1809. 8.

|| T. A. G. Roese's Taschenbuch für gerichtliche Aerzte. Vierte Aufl. von K. Himly besorgt. Frankf. 1811. 8.

Fielitz published his opinions on an authoritative order for the procedure to be followed at judicial dissections.* By command of the Württemberg government, the faculty of medicine of Tübingen, gave a mandate to the government-physicians for the greater accuracy in such investigations; and this gave occasion to J. H. F. Austenrieth's admirable "guide for physicians in cases of legal inspection. Tüb. 1806, 8vo." That of G. H. C. Cruveilhier† is also commendable.

The degree of mortality of wounds was considered by C. F. Wildberg,‡ J. E. Lietzau,§ and J. Köpp.|| F. B. Olander produced an excellent dissertation on suicide.¶ F. Wegeler,** published several instructive documents on a doubtful case of suicide. F. B. Immich†† judgment on a similar case is also very accurate and instructive.††

The detection of poisoning by arsenic, was illustrated by C. H. Pfaff,‡‡ Robb,§§ but in particular by Rose.||

On the proof of child-murder, derived from the swimming of the lungs, which has so often been disputed, J. A. Schmidt Müller justly observed, that all depends on the presence of the natural quantity of blood in the lungs.¶¶ W. J. Schmitt*** instituted important experiments, which taught him, that the weight of the lungs does not always correspond to the weight of the body so accurately as the strenuous defenders of Ploucquet's test give out; that a child can breathe when the head alone is born; that putrid lungs do not float, and that the colour of the lungs is fallacious. On the test of child-murder, from completed respiration, as well as upon several judicial questions concerning child-birth, accurate investigations were made by C. F. L. Wildberg.†††

* Arch. der gerichtlichen Arzneiw. St. 1. Leipz. 1811. 8.

† Vollständige und deutliche anatomische Anweisung für gerichtl. Aerzte zu Leichenuntersuchungen. Götting. 1806. 8.

‡ Wie die tödlichen Verletzungen beurtheilt werden müssen. Lipz. 1810. 8.

§ Von der Tödtlichkeit der Verletzungen. Berl. 1811. 8.

|| Ueber körperliche Verletzungen, in soweit als sie das Verbrechen der Tödtung bilden. Ertl. 1812. 8.

¶ Ueber den Selbstmord, seine Ursachen, Arten, medicinisch-gerichtliche Untersuchung, und die Mittel gegen denselben. Hannover, 1812. 8.

** Fünf medicinisch-gerichtliche Gutachten über einen erhängt gefundenen Knaben. Koblenz, 1812. 8.

†† Suicidium dubium casu singulari illustratum. Jen. 1808. 8.

‡‡ Neues nord. Archiv, t. 1.

§§ Salz. med. Zeit. 1811. B. 2. S. 189.

|| Gehlén's Journ. B. 2. S. 668.

¶¶ Hirt's Archiv, 1805. B. 2. Heft. 1.

*** Neue Versuche und Erfahrungen über die Ploucquet'sche und hydrostatische Lungenprobe. Wien, 1806. 8.

††† Decisiones medico-legales quæstionum dubiarum de infantibus neogestis. Götting. 1808. 8.

W. A. Ficker, by reasoning and his own experience, endeavoured to shew that the fetus can breathe in the uterus.* In consequence of the pulmonary test having indicated respiration to have taken place in a hydrocephalic child, which, however, gave no distinct sign of life, Benedict concluded that this proof is of no weight where hydrocephalus is present.† To us this induction is not satisfactory; for respiration can undoubtedly take place without other signs of life, and does not depend on the integrity of the brain, but on the influence of the par vagum. In a child born before the full time, which, however, lived twenty hours after birth, Mendel‡ found that the lungs partly sunk in water. A. Henke likewise stated several good objections to the pulmonary test.§

Finally, on impotence in man, and on rape, E. G. Elvert published a dissertation which was not altogether satisfactory.||

* Salz. med. Zeit. 1810. B. 2. S. 305. f.

† Salz. med. Zeit. 1812. B. 4. S. 337.

‡ Hefel. Journ. B. 22. St. 4.

§ Revision der Lehre von der Lungen- und Athembprobe. Berl. 1811. 8.

|| Die Unzulänglichkeit ärztlicher Entscheidung über vorhandenes männliches Vermögen. Tübing. 1806. 8.

22

There is a great deal of
writing in this book, and
it is very interesting. I
have read it with great
interest, and I think
it is a very valuable
work. I have read it
with great interest, and
I think it is a very
valuable work.

I have read it with great
interest, and I think it is
a very valuable work.

2

from the Author

FRIENDLY HINTS,

&c. &c.

ADVICE
TO SUCH
MILITARY OFFICERS,
AND OTHERS,
AS MAY BE SUFFERING FROM WHAT HAS BEEN CALLED THE
WALCHEREN FEVER,
ACQUIRED ON THE LATE
EXPEDITION TO THE SCHELDT:
BEING THE
SUBSTANCE
OF
AN ANSWER TO A LETTER
ON THIS SUBJECT.

BY
CHARLES GRIFFITH, M. D.
MEMBER OF THE ROYAL COLLEGE OF SURGEONS OF LONDON, AND
SENIOR SURGEON TO THE FORCES.

LONDON:
PRINTED BY G. HAYDEN, 4, BRYDGES STREET, COVENT GARDEN:
AND SOLD BY
T. EGERTON, MILITARY LIBRARY, WHITEHALL;
AND J. CALLOW, CROWN-COURT, PRINCES-STREET, SOHO.

1810.

Price One Shilling.

FRIENDLY HINTS,

&c. &c.

THAT the Fever, which has obtained the name of WALCHEREN, however improperly, from the number of our troops affected or destroyed by it on that island, should still harrass a great number of those who were employed on the late Expedition, is no unexpected circumstance in the eyes of those of the Medical Profession who have been accustomed to witness the effects of marshy exhalations, more especially in warm climates; nor indeed could those of the Profession, who had been employed in ZEELAND and other

Dutch provinces, in 1794 and 1795, be strangers to the kind of Fever which was naturally to be looked for on re-visiting HOLLAND. Experience, however, was not thought of on selecting the Medical Staff for that Service; and I have reason to believe myself to have been the only *commissioned* Medical Officer of those years, who re-visited the Banks of the SCHELDT on the late occasion.

WALCHEREN, called by the Dutch themselves EUROPEAN BATAVIA, is nevertheless not more destructive to strangers than BEVELAND, and other parts of ZEELAND; nor is ZEELAND more fatal than many districts in other provinces of HOLLAND subject to the same superabundance of *stagnant*, and to the same want of spring, or *living* water.

WHOEVER has been conversant with the BENGAL Fever, as it appears in the low and uncultivated parts of INDIA, whether the same be called (according to the situation in

which it is acquired) Jungle Fever, or Marsh Fever, occasioned by noxious exhalations from a wet soil, covered with wood or marshes, shaded by luxuriant aquatic plants, and impervious to the breeze as well as to the sun's rays: I say, whoever has only a few times witnessed this Fever, will recognise in that with which we were afflicted in ZEELAND the features of an old acquaintance; nor does a difference of climate occasion any other difference of the malady, as far as my observation extends, than that in HOLLAND it is not so rapid in its progress, and is more readily brought to intermission than in the warmer latitudes. Speedy removal from situations confessedly unhealthy is absolutely necessary in both climates; since, although we may be highly flattered by the efficacy of medicine in the temporary effect it has on this Fever, yet, the cause still remaining, the patient must continue stationary as to convalescence, until another attack puts a period to the most feeble hope of recovery.

HAD our Sick at WALCHEREN been removed, when taken ill, to hospital-ships placed to the westward of the Island, from which quarter the wind, most prevalent at the season we were employed, blew, I am clearly of opinion, not only that we should have returned back to their Regiments great numbers fit for duty long before the Island was evacuated, but that two of three who died there would have been preserved. In proof of the correctness of such opinion, which I have not communicated since my return to ENGLAND *for the first time*; let the loss of men sustained (from fever) by the *Royals*, which were quartered near the verge of the Island westward, and thus, for the most part, exempted from marsh miasmata, be compared with that of any other Regiment of the same strength; or, let a comparative view of the mortality of the Navy, lying but a little off shore, be made with the Army on the Island, and little doubt can remain, I think, as to the mode

of infection; and as little, how in our marshy military hospitals we preserved Fever carefully in its full vigour.

It has given me much pleasure to understand, that the regiments lately returned have been, without exception, destined to situations, where a pure atmosphere will aid their Surgeons in restoring them to the Service of their Country: and I cannot but advise all Officers on leave from such Regiments, to avoid the low parts of our coast, *even although they may chance to be natives of a low country.*

OF the similitude of what has been called WALCHEREN Fever, to that of BENGAL, in one very essential particular, namely, the occurrence of the same long after removal from the noxious spot, my own case is an instance, which may be worth relating.

I returned about the 17th of October from

WALCHEREN, on account of a complaint of my head and lower extremities, which, with my friends, I believed to have been a nervous affection, occasioned by a pretty severe attention to duty, and none at all to diet. Of this, however, I so far got the better in a month after my return to ENGLAND, that a periodical pain in my head was all I had remaining of indisposition; and this, returning at night only, allowed me to go abroad daily; and apparently improving in my general health, I was, after some months, flattered with the hope that I had entirely recovered of the Fever, when, on the 3d of June, I was taken ill with Fever, (preceded by a rigor or shivering of two hours continuance) which lasted with great violence for eight and forty hours; at the end of which time an intermission was effected, which gave me a respite for two whole days: on the termination of this period, however, I discovered, to my great mortification, that I had renewed a complaint I hoped I had

finally relinquished, when many years ago, I left BENGAL, although full eight months had now elapsed from my quitting WALCHEREN, and even though, when in that island, *Fever* had not molested me. I had many subsequent attacks, each of which being evidently impressed by medicine, was less than the last; they were likewise irregular, and seldom preceded by much Rigor, until at length they ceased altogether for three weeks; when, having much on my hands, I was prevented from continuing my preventive remedy (the bark) with the necessary regularity due to this complaint, and was again so much annoyed by my enemy, which began to weaken me rapidly, that I was compelled to acknowledge its consequence, and to be more strict in my means of defence. And I have succeeded accordingly, although I will confess, not so compleatly yet, but that in moist weather I feel a sufficient hint either from chilliness, or preternatural heat, to keep me still on the alert with respect to medicine, which

this insidious Disease will prompt me to continue probably until autumn advances.

HAVING confessed my own neglect, and the evident consequence resulting from it, for the instruction of such fellow-sufferers as have thought too lightly of this Fever, and imagine still, that being removed from ZEE-LAND, is all that is necessary towards the removal of the same; I would warn them against a security which has proved fatal to one of the Medical Staff, and which greatly endangered two Officers of my acquaintance before I had been made sensible of their situation. I am ready to confess, that the danger here in ENGLAND, is lessened as to the fatal termination of the disease, but still the consequences resulting from it, I mean particularly the indurations of the Liver and Spleen, which frequently occur to patients long harrassed by this complaint, are of themselves momentous enough to render us satis-

fied with no amendment short of a perfect cure.

A VERY short residence in INDIA has made me feel the importance of seeking the prevention of such obstructions, the latter of which, however unimportant the Spleen has appeared to be, will not fail to call forth all the skill of the medical attendant,

WITH regard to remedies, as we have no specific which will prove infallible in *all* cases, I shall only attempt to shew, that luckily in the *ordinary* occurrence of the Fever, *i. e.* in six cases of seven at least, three or four varieties only are sufficient; but they should be *well chosen*, and most *scrupulously adhered to*, otherwise the attention of the Regimental Surgeon, or other Medical Practitioner, is abused, and rendered abortive; nor could a whole College act with effect but in concert with the Patient, to whom, if I have addressed myself in my title

page, it has been with the view of becoming the Auxiliary, rather than the adviser, of the Regimental Medical Officer, whom I cannot but consider as the *medicus et amicus* of every Corps, and as the most generally effective Officer of his Department in the Service. And I must here observe, that Mercury, Bark, &c. unadvisedly used, are continually made the sources of mischief, in Regiments, to those who foolishly imagine, that, being informed of the proper Dose, nothing more is requisite than to swallow the same at pleasure. If this is indeed all that is requisite, the study of Diseases, and the effects of Medicine, must be Folly, and lost time. The contrary, however, is the fact; and it should not be unnoticed by Novices practising on themselves, that what *well* applied will cure, *ill applied* may chance to destroy them.

On the Commencement of the Rigor, or shivering, recourse is often had to some heat-

ing liquids, such as Brandy, Peppermint-water, &c. &c. and this is at all times much in conformity to the will of the Private Soldier; but if it really shortens what is called the cold fit, which I doubt, it adds to the succeeding heat so materially, that, stating Debtor and Creditor fairly, no one will do well to use such means, unless (which is very rarely the case) the former should appear to be the predominant Complaint, when perhaps some regard should be paid to it in the treatment of the Fever.

I WILL now suppose the Chilliness, or cold sensation, to have left even the Extremities, and the Fever to have continued for half an hour; *at this point of time*, agreeable to the Practice formerly recommended by Dr. LIND, I have found that a grain and an half, or two grains of pure opium, generally lessens both the violence and duration of the Fever, if, in fact, it does not annihilate both this and the preceding rigor alto-

gether, which likewise (although, I confess, rarely,) I have witnessed after the *first* Dose; but if to the Opium we add five or six grains of Calomel, we shall be agreeably surprised in our comparison of the accession of Fever thus treated, with former instances; and thus be induced, setting prejudice aside, to look with more respect on Calomel, holding it in remembrance until a fresh attack. In the mean time, it should not be suffered to dwell long in the Bowels, since, even guarded with Opium, it will sometimes affect the mouth, and thus prevent so early a recurrence to the same Remedy again as may be necessary.

I MUST confess that the adoption of this preparation of mercury lately by the Army Physicians at WALCHEREN, whilst it raised them in my Estimation, gave a Zest to Practice there, which I have not always experienced on former occasions, as it proved to me that the Outcry against mercurials in

ENGLAND was yielding fast to the Voice* of Experience and of Truth; and although it was not prescribed in exactly the same mode, and Dose as above, these Gentlemen found their account in it.

ON the termination of the Fever, then, for the present, our next consideration is the prevention of a return; and here I have nothing more to offer, nor needs the Patient a better security than is held out by the Bark, taken in Powder, (if possible) *regularly, frequently, and in sufficient quantity*. But unless these stipulations are strictly complied with, let no man ungenerously impute the continuance of his Complaint to his medical adviser. Half a drachm of good Bark,

* Dr. LYSONS, many years ago, recommended the use of Mercury in Intermittents; and Dr. DONALD MENRO, in his *Observations*, speaks of a "very particular case" of Ague to be found in vol. 2, of the Medical Transactions, and which having lasted for two years, was at length cured by "taking some doses of Mercury." See also Drs. HOFFMAN and HUXHAM.

repeated four times in a day, will act better and more effectually than half an ounce Night and Morning only. Much, indeed, depends on the goodness of this Drug, which should therefore be selected with judgment. Should the powder disagree with the stomach, a Decoction, with a little tincture added, may supply its place; it should, however, be clearly ascertained, before we commence with another Preparation, whether any will succeed under the existing state of the Stomach, and whether an Emetic, or stomachic-purgative may not be requisite previous to its Exhibition.

WHEN the Bark runs too quickly through the Bowels, especially after the first day or two, it must be restrained by opium. It is said, however, and I think justly, that this occurrence on the commencement of it, is a favorable indication that does not require immediate notice: and as it has sometimes a contrary tendency, a little Rhubarb will be

added, in such Case with advantage, to each dose.

As to the mode of taking the Bark powder, it must vary with circumstances and situations. Taking a hint from Corporal Trim, I would advise a General Officer to take it in old Hock, which is the best vehicle I am acquainted with, although it must be confessed, not always attainable. The newer Rhinish Wines come next; and no Subaltern should complain on that occasion, whilst sound old Port is to be procured, of which a *little* more than usual may be commonly taken with advantage. Of diet, there needs, I think, little to be said, but that it should be of a generous kind, and that the stomach should not be annoyed with weak Liquids, or watery Vegetables, and that in general its own cravings may be attended to.

I HAVE ever found it difficult to persuade

patients of the necessity of a *regular* use of Bark in Intermittent Fevers, even whilst they are conscious of the existence of them; but it is still a more arduous task to convince them of the necessity of continuing the same for many weeks after the absence of the Fever; nevertheless, such is the fact; and as there exists not after any disorder so great a tendency to Relapse as after this, it should be noted, that even when we do quit this admirable Defence, we should do it by very slow degrees. This the Agues even on our own coasts demand.

In reply to the questions, what were the opinions of the Physicians in WALCHEREN (natives) of the disease, and the necessary Treatment of it? I can only say, that they appeared to me to have been full a century and an half in the rear of our medical attainments in ENGLAND. These illuminati, who, like our nurses here, laying mighty stress on "certain simples," are, in general,

affrighted at chemical Preparations, assured us gravely that there was not a more healthy spot in the universe than the above; that the English owed their sickness to "eating apples and drinking water;" that "their Doctors treated them improperly in ventilating their fever-wards, which should have been closely shut up, and fires made in them, (in the month of August!)" and that Calomel and Antimony were destructive in the highest degree to our Sick!!! &c. &c. So much for Medical Science in MIDDELBURGH.

As it may appear to those, who are not much connected with the Army, that the printing of these Hints has now become ill-timed and superfluous, it is necessary to observe, that even now, in the narrow circle of my acquaintance, so many are suffering under the influence of the complaint, that I am induced to believe it may become a Stimulus to a great number, of whom although I am personally ignorant, the wet season

teaches me to suspect they are still existing in various parts of the kingdom; and the numerous cases still remaining at the York Hospital well warrant such conjecture.

I know many will object, that the Bark which is here recommended, often fails of Success. To such let me observe, that I have no where encouraged the most distant belief that it will act *alone*, and in *all* cases; on the contrary, it is my opinion, that if this valuable drug be given improperly in the early state of the complaint especially, succeeding doses not only are of no service, but considered as inert foreign substance, they may readily be supposed to do Injury. Of this I had a very convincing proof at an early age, when I was sent into Sussex to attend two Troops of Dragoons which had cost their Surgeon 26*l.* per month in Bark. (He being absent,) these poor fellows I found to be labouring more under the injudicious administration of the bark than under the

complaint it was meant to remove. On joining them, I had not six men in either Troop fit for duty, nor as many who were *not* fit in less than four weeks, when (1780) they were suddenly marched to LONDON. But I had here to undo what my Predecessor had done, and put matters on their original footing, before I could make any Progress. The above Gentleman, however, I am happy to state, was not an Army Surgeon; nor does such Ignorance, I will venture to say, exist at the present day in the Army.

Devonshire Street, Queen Square,
August 17, 1810.

The reader who wishes to enter more fully into the variety of symptoms *occasionally* attached to Intermittents, may very profitably consult as well Sir JOHN PRINGLE as Dr. LIND, whose *Essay on Diseases incidental to Europeans in Hot Climates*, under the head of Agues, contains much practical information. In this ingenious work he will find (page 26 to 28, 3d edit.) that not only WALCHEREN is very unhealthy even to its natives, from August or September, until the arrival of cold weather, but that previous to his writing, (1777) "the Scotch regiment in the Dutch service," had, "at Steys, been known to bury their whole number in three years."

With the Author's best Regards

OBSERVATIONS

ON THE UTILITY OF

BLOOD-LETTING AND PURGATIVES,

IN

A FEVER WHICH PREVAILED IN THE

RUSSIAN FLEET.

BY

D. J. H. DICKSON, M.D. F.L.S.

PHYSICIAN TO THE FLEET, AND FORMERLY SUPERINTENDING
PHYSICIAN OF HIS IMPERIAL MAJESTY'S
SQUADRON IN THE MEDWAY.

[From the Edinburgh Medical and Surgical Journal, Vol. XII. No. 46.]

OBSERVATIONS, &c.

THE following observations, so far as they relate to the general utility of early blood-letting and purgatives, in a fever which, on two occasions, prevailed in the Russian squadron in the Medway, under my superintendence, were written upwards of eighteen months ago; but, being then with the North American fleet, I deferred the final consideration of the subject until my return.

In the meantime, I sent my remarks to Drs Douglas and Dobson, who, from having had the charge of the Argonaut and Trusty hospital-ships, appropriated to the reception of the sick, were peculiarly qualified to appreciate their correctness; and I requested to be favoured with such alterations and additions as their experience should suggest.

I have much satisfaction in bearing testimony to the skill, humanity, and attention evinced by these gentlemen in the very arduous situation in which they were placed; and I am bound equally to acknowledge their zealous co-operation on all occasions, and the readiness with which they have subsequently given me every information in their power. As their opinions are communicated to me as "the entire result of practice and observation, unwarping by prior predilection for any particular theory," I may fairly hope, that their coincidence with my own, as to the practical results, will give these greater weight than, individually, I could have expected them to possess. My object is simply to detail, with all the fidelity in my power, the features of the disease, and the success of the treatment adopted,—a duty which seemed, in some respects, to devolve upon me, and of which ill health, and other irrelative circumstances, have prevented the earlier fulfilment.

I have occasionally adverted to different authors as they occurred to me, in support or illustration of these remarks; but I have also frequently omitted to do so; and, from unwillingness to extend my references unnecessarily, have oftener alluded to

my authorities, or given their meaning, as found in my notebook, than quoted their precise words. In ships recently and hastily fitted out, fever is so frequent an occurrence, that it would be superfluous to dwell upon the rise and progress of that in question, by explaining the consequences attendant upon the equipment of a large fleet, with the utmost dispatch, manned chiefly with landsmen, necessarily subjected to great changes in their diet, habits, &c. and unaccustomed to the privations and exposure incident to their new mode of life. During the voyage to England, sickness increased rapidly in Vice-Admiral Crown's squadron, which had been longer at sea, having sailed from Archangel to join the division at Cronstadt; and, by the time the fleet arrived in the Medway, fever had made so alarming a progress, that it became necessary to appropriate hospital-ships to receive the sick, which were immediately crowded with patients; several of whom were in a dying state, and many in the advanced stage of typhus.

To the previous exertions, and judicious arrangements of Dr Weir, inspector of hospitals, I found myself greatly indebted upon my arrival, some time afterwards.

To the fleet, which, under the command of his Excellency Admiral Tate, consisted of fifteen sail of the line, and eight frigates, &c. were then attached twelve British medical officers,—the services of whom, and of those appointed on subsequent occasions, were of great assistance to me, and advantageous to the squadron. Exclusively of the milder cases, treated by them on board, the hospital and convalescent ships contained, at that time, about 300 patients; but, as shewing the prevalence of the disease, and the result of the treatment employed, it will be better to give the total number, by premising that, between the 18th of December 1812 and the 24th of April 1813, there were received by the Argonaut and Trusty 802 cases; and, again, between the 25th of September 1813 and the 3d of March 1814, were admitted 1006 cases; making in the whole 1808 patients in hospital, generally labouring under fever. Of this number, including convalescents at the time of my arrival, above two-thirds were under cure, and 109 died, during the periods of my inspection, comprehending seven months, which is nearly one man in eleven. The antecedent mortality had been double this proportion, which may be accounted for, by many, at the commencement, having been received in the last stage of the disease, whereas, afterwards, they were generally sent early;—by the greater malignity of the first attacks;—and also by the greater confidence and freedom with which the depletory system was resorted to, in proportion to its success. This, it may

be presumed, would have been still greater, if the patients, in all cases, could have been sent to the hospital-ships at once; but, notwithstanding every injunction to this effect, owing to their distance from the fleet, the state of the tide and weather, and their frequently not complaining immediately, the fever had often made considerable progress before it was detected.

I ought here to observe, that the above dates (in both cases commencing with the reception of the sick into the hospital-ships, and ending when my appointment ceased, on the fever being subdued) comprehend two distinct periods of sickness; the ships having remained perfectly healthy from April 1813 till the following September, when fever was revived in the fleet by a large reinforcement of recruits having arrived in crowded transports; but as the disease and the treatment were the same, I have thought it best to give the aggregate result, and to state that my remarks apply to both periods; though in the former, the disorder had attained a higher degree of malignancy before it was controlled. Many of the first and worst cases, as already stated, were admitted in the last stage of typhus, with low muttering delirium, picking at the bed-clothes, subsultus tendinum, hiccup, squinting and involuntary exertions,—and some with a vomiting of dark-coloured fluid, gangrene of the toes, &c.

When I joined the fleet, the fever, in both instances, had become less typhoid; it was reported to me to be "synochus, frequently terminating in typhus, and death, if copious evacuations had not been had recourse to at an early period of the disease."

It is highly important, here, to contrast the difference of symptoms under this practice, even in unfavourable cases, with those of the patients first received, which had not been controlled by depletion. The tongue was often parched, but not black; there was delirium, but not of the low muttering kind; subsultus tendinum, but without great nervous tremor; seldom involuntary discharges, and no strabismus, nor those appearances of putrescency which mark the close of malignant fever. It appears to me, therefore, an inevitable conclusion, that, by those remedies which repress inflammatory action at the commencement, those graver, or eminently typhoid symptoms, which characterize the advanced stage of such fevers, were prevented. But I am not anxious to designate the disorder, since it has been but too common to connect with the name peculiar ideas of a disease, modifying the treatment, which ought alone to be regulated by a knowledge of its nature and tendency, aided by the pathological light of dissection.

In proof of the highly infectious nature of this fever, in the

first instance, particularly in the hospital-ships, where so much disease was concentrated, it will be sufficient to mention, that nine out of eleven medical officers, attached to the sickly division, and to the hospitals, were attacked in the course of a few weeks. It proved fatal to one surgeon and an assistant; and two assistant-surgeons belonging to the *Trusty* died of the consequences. I was one of the last taken ill, after having been exposed for little more than ten days; which may be readily accounted for, when the powerful exciting causes inseparable from visiting a distant, detached, and sickly squadron, in the middle of winter, are taken into consideration.

The contagion appears to have been particularly powerful in the *Trusty*, which ship had received the first, and consequently the worst cases; as not only the surgeon, and other medical officers, suffered severely, but twelve out of sixteen attendants, accustomed to the duty of waiting upon the sick, were seized with fever, four of whom died.

Several attendants in the *Argonaut*, two assistants, and ultimately the surgeon, were also attacked; but he informs me, that, with one exception, all recovered, in whom he had the advantage of combating the disease at its commencement. It is needless here to dwell upon the value of various prophylactic measures under the heads of separation, ventilation, dryness, cleanliness, better clothing, &c. to which my solicitude was chiefly directed, or the difficulties that opposed their execution. I may, however, remark, that the benefit was in proportion as they were practised, and that the disease gradually became milder, to which the decreasing severity of the weather, as the spring advanced, materially contributed. Indeed, although malignant cases still continued from time to time to occur, in the more general course of symptoms, such as I am about to describe, there was little remarkable; and without keeping in view the tendency to inflammation and disorganization which characterized the progress of the disease, there would have appeared little to warrant apprehension; but, as Dr Haygarth justly remarks, after describing the symptoms of Typhus mitior, sometimes even this mild typhus is fatal.

The invasion of this, like many other fevers, was generally preceded by listlessness, languor, and weariness, which, according to the old maxim, foretell disease. This state of indisposition to mental or bodily exertion, was followed by chilliness rarely increasing to rigor, prostration of strength, or a sense of general soreness and fatigue; pain of the head, back, &c.; anorexy, but seldom vomiting, and succeeded by increased heat, though the patient often complained of cold; frequent pulse, but

varying in strength, white tongue, thirst, costiveness, and other symptoms of fever, which often continued for several days before any particular organ appeared to be attacked. In some cases, a higher degree of febrile action was early indicated by flushing of the face, sensibility and glossiness of the eyes, throbbing of the arteries of the neck and temples, with greater heat and anxiety of respiration; but though, in others, the accession was less strongly marked, and the patient made little complaint, except of headach at first, yet symptoms of increased determination to the breast, head, &c. supervened in a few days, unless anticipated; corroborating the observations of Riverius and Baglivi, as to the frequency of visceral inflammation in such fevers.

The features of fever are so infinitely modified, that I have no intention of delineating all the varieties in the present instance; but I trust I shall not be suspected of the less veneration for such great authorities as Dr Cullen, Fordyce, &c. if I notice here, that my observation has not tended to convince me of the propriety of holding forth an intermittent paroxysm as an epitome of continued fevers in general, or of considering them as merely a repetition of such paroxysms, more or less distinctly marked, with longer or shorter intervals.

I am, therefore, gratified by having since found that Dr Willan, in his reports for 1801, from close attention to the origin, symptoms, and termination of both, is of opinion, that no direct analogy subsists between an intermittent and a malignant fever, propagated by infection.

The most frequent occurrence in the disease under consideration was a sense of dyspnoea, and a cough supervening about the fifth day: in some it assumed more the appearance of simple pulmonic inflammation; in others of pneumonia typhodes. It was occasionally attended also with symptoms of cynanche, and swellings of the parotid and submaxillary glands, which, in a few instances, terminated in mortification and death; and gelatinous-looking effusions were likewise sometimes found in the trachea and bronchial vessels; but these varieties were comparatively rare.

Delirium and coma were very constant attendants at a more advanced period, in unfavourable cases; and it is hardly necessary to remark, that the danger was in proportion to the degree of stupor, and the depraved or oppressed condition of the sensorial and respiratory functions; while, in the more obscure cases, it was better estimated by the countenance, posture, and answers of the patient, than by the pulse or other prominent symptoms. In a few instances in which they occurred, an un-

pleasant cadaverous smell from the body, and much tremor of the hands and lips, indicating great depression of nervous energy, proved fatal symptoms. The same remark was particularly made to me in the Levant, as to tremor of the lips in the plague.

Some authors, as Sydenham, Huxham, &c. mention examples of spontaneous salivation proving critical in fever. Instances of increased determination to the salivary glands sometimes attended here, which could not be imputed to mercurial influence. In myself, without having taken any mercury at all, their action was excited by insensibly acquiring a habit of spitting frequently, until it amounted to complete ptyalism. It accompanied, and diminished with the disease in a remarkable degree on the seventeenth day, and had almost entirely ceased by the next morning.

It had always been considered a favourable omen, as indicating a less powerful character of fever, at least as far as relates to heat and vascular excitement; for in those of tropical climates, I have had but too many opportunities of observing that salivation could not be induced when there was a high temperature and strong inflammatory or febrile action; and I am therefore led to believe that its existence is incompatible with a rapid and ardent form of fever.

I may here add, that, as far as I may judge from personal recollection, the feelings which excited the greatest uneasiness and attention, were a throbbing of the temples for some nights preceding the attack, the headach in the first, and the cough in the latter stage of the disease, together with watchfulness, and a distressing sense of sinking, or extreme prostration, and a tendency to evening delirium, representing the presence of unpleasant objects; but generally so mild, that the mind became sensible of it when painful, and, by opening the eyes and fixing the attention, could be recalled from its alienation.

The duration of the fever was various, often protracted, and without any regular crisis. But, upon the whole, an amendment was, perhaps, most frequently observed on the eleventh day; though in numerous instances on the other odd days also, from the 7th to the 17th inclusive. Few recovered in whom a change for the better was not perceptible by the latter date, which is considered by Sir John Pringle as the most frequently critical. When the disease was prolonged, it generally left a troublesome cough behind, and an excessive degree of debility, from which the convalescence was extremely tedious, but when a crisis took place early the recovery was rapid.

Although I am not inclined to place much reliance on such

calculations, which are very liable to error, the following number of fatal cases, in which the period of attack could be ascertained, shews a great predominance of the odd days: of fifty-six cases that proved fatal in the Trusty, within the month, two died on the 6th, 12th, 14th, and 28th days; four on the 7th; five on the 9th; nine on the 11th; ten on the 13th; six on the 17th; three on the 25th; one on the 8th, 10th, 15th, 18th, 19th, 21st, 24th, 26th, 27th, 29th, and 31st; and none previously to the 6th, nor on the 16th, 20th, 22d, and 23d days of the disease.

The appearances on dissection proved strongly illustrative of the frequency of local congestion and inflammation. There was hardly any organ which was not occasionally found diseased; but the parts most commonly altered in appearance and structure were the contents of the thorax, the brain, and the abdominal viscera. Of these the lungs, probably from the coldness of the season, and insufficient clothing, suffered most frequently; and the effects of inflammation were conspicuous in extensive adhesions of their investing membrane to the parietes of the chest, pericardium, and diaphragm; in effusions of coagulable lymph and serum, or the formation of purulent matter.

The heart occasionally, and oftener the pericardium, exhibited patches of inflammation, with spots of effused lymph, and had formed strong attachments. In one patient they adhered so firmly that the heart was torn in attempting to separate them. The quantity of fluid found in the pericardium varied: sometimes it was considerably increased; at others, there was little or none. In a few patients the liquor pericardii was very turbid, and like whey, or partly purulent: in one, there was about four ounces of pus. In several instances (in some where there was a deficiency, but also in others where it contained a portion of fluid) the pericardium was found so thin, dry, shrivelled, and transparent, as to have the most perfect resemblance to a piece of dried bladder. This desiccated appearance, which occurred more frequently in the Argonaut than in the Trusty, is mentioned by Dr Baillie as having been twice found by himself, and much oftener by Mr Hunter. The diaphragm also sometimes exhibited similar dry patches, and oftener erysipelatous inflammation.

Masses of coagulable lymph were occasionally found in the cavities of the heart, and some of a yellower and more fatty appearance than the other; but, instead of being inflammable, they also shrivelled up, and exhibited the character of albumen or fibrine, when exposed to heat. This separation is not uncommon, however, in patients dying of other disorders; and often

takes place after death, and probably in protracted cases previously, or in *articulo mortis*.

Though strong traces of disease were not so uniformly observed in the brain as in the thorax, yet signs of previous excitement and congestion were often evinced by the fulness of its vessels, the increased vascularity, and sometimes the agglutination of its membranes; and by numerous ramifications of fine, and as if minutely injected capillaries.

Spots or specks of coagulable lymph were sometimes thrown out on the inflamed surface of the dura mater; and effusions of fluid on the outside, or into the ventricles of the brain. In one instance, about four ounces of lymph were found between the meninges; and in some, blood was extravasated on the surface, or in the convolutions of the cerebrum; indeed, effusions of blood or serum had frequently taken place, in those who died with symptoms of compression, about the 18th day.

The abdominal viscera, and their peritoneal covering, often displayed the remains of inflammatory action also, as had been conjectured from the pain on pressure; and the small intestines adhered to each other, and to the wasted omentum. Purulent matter, and serous exudations, containing portions of albumen, were likewise discovered, though less frequently in the abdominal than in the thoracic cavities; and though such effusions, as the consequences of inflammation, are best anticipated by the lancet, yet they may have been sometimes promoted by the intended remedy, if employed too late to be of service.

The liver was less frequently found diseased than was expected; but it sometimes bore marks of inflammation; and, now and then, its convex surface was of a spotted or erysipelatous appearance.

The gall-bladder was seldomer distended with bile than would have been the case, if purgatives had not been so freely employed. Occasional appearances betokened increased determination to the kidneys and bladder;—in a few instances the pancreas felt unusually hard, and firm;—the spleen sometimes exhibited dense;—and in one or two patients, a cartilaginous deposition, of the size of a crown piece, was found on its surface.

There was less affection of the stomach, both before and after death, than I have observed in any other fever.

These are the appearances, noted from the dissections made in the hospital-ships, which I recollect to have seen, or with which I have been favoured, as having most frequently occurred, from the sources I have already acknowledged. Without pretending to enumerate all the nicer changes, or shades of diseased structure, I merely mean to say, that one or more of the viscera be-

came the seat of morbid action, to which the burthen of the fever was directed, either primarily, by local predisposition, or particular concurring circumstances; or was transferred secondarily by association.

Very many authorities might here be quoted in support of this alliance between fever and local inflammation; but it will be sufficient to refer to them collected in the works of Drs Clutterbuck, Beddoes, Mills, and other late writers. Mr Burns, in his treatise on Inflammation, says, "that typhus is always attended with an inflammatory affection of the head, and sometimes of the lungs or abdominal viscera, must be acknowledged by every one conversant in dissection."

In speaking of inflammation, however, it is necessary to keep in recollection the occasional red and vascular appearance of a part, which probably has been frequently mistaken for it. Such an appearance of vascular fulness, in the villous coat of the stomach, particularly from venous accumulation, has been often found where no suspicion of previous inflammation could be entertained; as has been well illustrated by Dr Yelloly in a paper of the 4th volume of the *Medico-Chirurgical Transactions*.

On the other hand, if it be granted that slight inflammations are dissipated after death, it follows, that, to estimate the early and less marked effects of this state, it is necessary that the investigation should take place as soon afterwards as possible. For we should keep in mind the remark of Bichat, that inflamed serous membranes soon lose their redness; and the observation of Drs Rush, Clutterbuck, and others, that congestion, or other morbid states of the brain, produced by disordered action, or minute, yet fatal changes of structure, may have taken place, yet leave little or no marks of disease after death.

Analogous to this, in yellow-fever I have observed the serous capillaries of the tunica conjunctiva red and turgid with blood, which disappeared after dissolution.

It would appear, therefore, that there is danger of error on both sides, unless when the pre-existence of inflammation is rendered unequivocal by adhesions, suppuration, extravasation, effusion, or considerable organic derangement.

Without further enlarging upon these morbid changes, they certainly go far to establish the connection between fever and inflammation in the present, and, by analogy, its frequency in other fevers; for, as far as I am acquainted, traces of inflammation, or of a state nearly allied to it, were discovered in such cases as had appeared to be the most purely idiopathic; and, even when the patient had complained of little or no pain dur-

ing the disease, marks of increased determination or congestion were discovered in some organ after death.

It is therefore highly proper to bear in mind the extensive ravages which have been discovered on dissection, particularly in the glandular viscera, and which have oftentimes taken place, either without exciting sensation, or have been attended only with a dull low degree of pain.

Accordingly, it was often very difficult to appreciate, here, the extent of mischief going on, where it was only indicated by the maintenance of obscure febrile action, or by some sympathetic affection; for in some cases it was discovered to be considerable, when the patient had made little or no complaint; and in others, the injury was found to be much greater in a part which had not been suspected, than in that of which he had complained.

I cannot, in consequence, avoid noticing here, the obscurity in which the diagnosis is often involved, and the frequent risk of deception, arising from implicitly receiving, as the seat of the disease, the part referred to by the patient. We should never forget, as Dr Monro well observes in his *Morbid Anatomy*, that sympathy between near, and even distant organs, renders the source of disease obscure,—and that distant sensations, and sympathetic feelings, often create the most acute pain, and give the first notice of internal mischief. I need hardly observe, how peculiarly this caution must be applicable in the morbid state of the sensorium, arising from the complicated phenomena constituting fever, when the confusion or indistinctness of the patient's perceptions is so apt to lead him to refer his uneasiness to a wrong source.

The influence of one pain in obscuring another, as a physical law of sensibility, was well known to the father of medicine; nor has it escaped the universal observation of the father of our drama: "But when the greater malady is fixed, the lesser is not felt."

We have so many instances on record of concealed mischief going on in this way, which has not been suspected until developed by dissection, that it is of great consequence to have the errors of sensation, or, more strictly speaking, of reference, in fever, constantly in view; and I trust I shall be pardoned for pressing such sources of fallacy more generally upon the attention; since, by placing less reliance on the more prominent features, and by scrutinizing the minuter shades of disease, we become enabled to estimate the result more correctly.

In dangerous fevers, particularly where the brain is much affected, we have too often but a very inaccurate criterion, if we

measure the extent and danger of diseased action by the pain, or by the state of the pulse, &c. Thus, while in many, these symptoms were amply sufficient to lead to the anticipation of a fatal event, it was difficult to reconcile the uniformity of this result in others, when they were much less considerable.

But, without attempting to reason upon a subject where the pathology is so obscure, and often, perhaps, evanescent, as that of the brain in fever, it may be remarked, that the fatal injury which this organ sustained, seemed oftener to be a secondary than a primary affection, and the consequence of sympathetic connection with some of the other primarily diseased viscera.

The idea of the brain suffering secondarily is farther countenanced by analogy; as, in many cases of wounds and accidents, in different parts of the body, we find that the apparent is often not proportional to the real danger; nor, except by sympathetic transference to the sensorium, is the local injury sufficient to account for the unfavourable result.

The perfect resemblance between sympathetic and original fever is here well worthy of observation; for often, consequent upon such local injuries, have arisen symptoms possessing all the characteristics of, and not otherwise distinguishable from, idiopathic fever; and indeed to this cause, viewed as an accidental and independent disease, the death of the patient in such cases has been, not unfrequently, but erroneously attributed.

The appearances on dissection which have been enumerated form a commentary on the observation of Riverius: "*Febres acutae et malignae rarissime sine visceris alicujus inflammatione incidere.*" They strongly demonstrate the propriety of venesection; and, accordingly, the benefit derived from this remedy was great in proportion as it was freely and early employed. When it could be so used, it was natural to expect that, in many instances, the disease would be crushed in its birth; but it seldom could be arrested when the symptoms had made any progress. In such cases, when the tendency to inflammation and congestion was lessened, but not destroyed, it often became necessary to resort to the repeated abstraction of blood; and although I was by no means friendly to this evacuation after the first days of fever were passed, yet that it was occasionally employed in smaller quantity, at a more advanced period, not only without any bad consequence, but with evident relief, I cannot doubt, not from personal observation alone, but from the different reports that were made to me on the subject.

When the fever could be attacked soon after its invasion, a large bleeding, repeated according to its effects, appeared to be the most beneficial practice in the Argonaut; and, if not suf-

sufficiently early to cut short the disease, it prevented or mitigated the symptoms of increased determination to the chest, or head, so apt to supervene.

In the Trusty, the treatment deemed the most successful was, where the patient lost within the first week or ten days between sixty and eighty ounces of blood, by taking away from sixteen to twenty-four ounces at a time. When the fever was violent, a larger quantity was abstracted in a shorter period; but it was not often necessary to exceed thirty-six ounces in twenty-four hours, at two or three bleedings. After the tenth day it was not often considered proper to bleed, or only in smaller quantities, when indicated by symptoms of pressure upon any particular organ, or by the appearance or renewal of inflammation. When this remedy had been neglected at the beginning, or the patient was admitted on an uncertain day of the distemper, small bleedings of six or eight ounces, repeated according to the effect, were found safer than larger ones, which might have proved too debilitating, and were serviceable in preventing or moderating the consequences of inflammation and congestion. An able physician, Dr Parry, in his *Elements of Pathology*, page 317, thinks "it is probable that subsultus tendinum, convulsive motions of the limbs, and hiccups, which often concur with delirium in various fevers, arise from long or violent irritation of the brain by sanguineous impulse." It is certainly in favour of this idea that effusions of blood or serum were generally found in the brain of those who died with these symptoms about the 18th day; and that, in some patients where small bleedings, graduated by the pulse, were tried even as late as this, when delirium, subsultus, startings, and coma, indicated an oppressed or irritated state of the sensorium, these symptoms were diminished, the respiration became freer, and the intellect more distinct after its employment. Under this treatment some apparently hopeless cases assuredly recovered; but it oftener failed. It is allowed that the presence of fever is most certainly detected by the state of the animal functions, and of the pulse; but to the latter there are many exceptions. I need not here adduce the many authorities that might be quoted in support of my own observation, to shew that the pulse, in many cases, has been found little affected in the worst fevers; that it is often little, if any, quicker than natural; and that it is sometimes preternaturally slow. But I believe it to be unnecessary to dwell upon its fallaciousness, or on the little information it often affords as to the propriety or quantity of blood to be taken, particularly where the head is much affected. In the early stage of disease it is often small, low, feeble, and irregular, previous to

considerable reaction; but, when the accession of this state is characterized by increased heat, hard, full, and frequent pulse, throbbing of the carotids, and other symptoms of excessive determination, the indication is sufficiently manifest. This state of increased action, however, does not always follow, but the pulse continues low and contracted, or labouring and oppressed, until relieved by evacuations, when it rises, becomes fuller, and more equal;—an effect which, with correspondent improvement in the intellectual powers, I have often seen produced by purgatives, as well as by venesection, in tropical fevers.

In this depressed state, the employment of a remedy, by no means passive, requires nice discrimination; for it is necessary to distinguish between that period of diminished energy preceding reaction, where it would prove injurious, and that in which, to use the language of Sydenham, "all the symptoms of weakness proceed from nature's being in a manner oppressed, and overcome by the first attack of the disease, so as not to be able to raise regular symptoms adequate to the violence of the fever," until "it could disengage and shew itself" by bleeding. Vol. II. p. 351.

It is impossible, therefore, from the state of the circulation, to lay down any infallible criterion for the employment of blood-letting in fever. The safest is the hardness of the pulse, and a white tongue, as indicating inflammatory action; and, upon the whole, it was generally considered at least safe to bleed in the early stage, where the heat was increased, and the pulse above 100.

The degree of resistance of the artery against the finger was considered a better guide than the size of the pulse; if it was firm and equal, bleeding was generally proper; if easily compressed, soft, or undulating, the contrary; if it felt tense, or corded, or the stroke was described as sharp, harsh, jerking, or rebounding, it was considered indispensable; but, in using such terms, we must be aware how difficult it is to attach precise and determinate meanings to words, and that the same pulse will be described very differently by different reporters.

In speaking of the fallacy of the pulse, I ought not to omit noticing the unequal distribution and power of the circulation which not unfrequently obtain in fever, as another source of error, if we judge of its force, in the vessels near the heart, by those of the extremities; for it may be strong and bounding in the central, yet weak and languid in the distant arteries. Some marked examples of this kind occurred from exposure to severe cold for several hours in boats after depletion; in consequence of which, I grounded my applica-

tion of the necessity of having a decked vessel to convey the sick to the hospital-ships. These patients, notwithstanding the application of warm blankets, &c. continued to complain of an extreme sense of chilliness, with coldness, and a sunk languid pulse in the extremities, while the face was hot and flushed, and the large vessels of the neck and head were greatly excited, indicating what Mr Hunter calls action without power, and shewing the danger, in such a case, of appreciating the state of the internal circulation by that of the radial artery. This unequal and partial distribution of heat, which seems to have engaged the attention of the ancients much more than the pulse, is very unfavourable in fever; and the same is the case whenever the actual condition of the patient and his feelings are much at variance; as, for example, when he complains of a much greater degree of either heat or cold than is indicated by the touch or by the thermometer.

With respect to the comparative advantages of large or of frequently-repeated small bleedings, in early fever, both plans were employed here, and with various results; the latter may be often useful and safe, where the former would be inadmissible. But, at the commencement of the attack, or where some important viscus is threatened with inflammation, I must give a decided preference to the large and sudden abstraction of blood, while there is yet any chance of anticipating or removing congestion, or of cutting short the fever. The one will, of course, be preferable while we have these objects in view; the other may be useful in mitigating symptoms where the expectation of crushing the disease can be no longer indulged. It is also evident, that the occurrence or renewal of inflammation later in fever may justify a cautious and limited detraction of blood, when the loss of a larger quantity could not be borne.

The same advantages were derived from venesection in cases of relapse. Mr Sheppard, who was surgeon of the convalescent ship, upon whose judgment I place great reliance, remarks: "From cautious experience of the advantages of blood-letting, the activity of fever often induced me to bleed largely, occasionally twice or thrice within the first twenty-four hours of the relapse. Nothing short of experience of decided benefit from this remedy could have justified the practice in that state of disease." He further observes: "Notwithstanding the advantages resulting from depletion, the blood drawn exhibited no inflammatory character."

The total amount of blood most frequently abstracted in the course of this disease has been already stated; but, in some few extremely plethoric and robust constitutions, from 100 to

150 ounces, and upwards, were taken away, with both successful and unsuccessful results. In one case of extremely violent fever in the fleet before my arrival, and where extravasation was afterwards found in the brain, I was informed that 200 ounces of blood had been withdrawn; but there are very few, if any, instances where the propriety of so large an evacuation may not be held questionable.

Like the pulse, the appearance of the blood was not a faithful index of the expediency of venesection. Though frequently, it did not generally exhibit the buffy coat; and, in many cases where it was soft and florid at first, it became firm and buffy under subsequent bleedings. However, if there was a large proportion of crassamentum, this remedy was not deemed less necessary.

In many instances the coagulum seemed soft, and as if dissolved in the serum; while, in others, the surface appeared like half-warmed jelly. In blood drawn late in the disease, or examined afterwards, the serum was often found of a firm gelatinous consistence, and of a straw colour, with not an eighth part of crassamentum, and that of a very loose texture, and of the appearance of currant-jelly. The presence of petechiæ did not prevent early depletion in this disease. On the contrary, they were obviously connected with increased excitement, and determination to the surface, and very often disappeared after, though they were not always prevented by the detraction of blood. It is, however, necessary to discriminate between petechiæ occurring at an early, and those which sometimes appear in the last stage of fever, when the circulation is languid, and the vital powers are failing.

In estimating the general value of phlebotomy, considerable allowance ought, no doubt, to be made for circumstances, such as the season of the year, and the robust habits of the Russians; but it was also practised upon the attendants and others with similar good effects, and, the reports add, upon the old as well as the young;—an observation which I should feel considerable hesitation in receiving, without explaining that there were very few with aged or debilitated constitutions.

In a typhous fever which afterwards prevailed among the Danish and American prisoners of war, and in which a glossy and turgid appearance of the eye was often the first indication of the disease, Dr Dobson of the Trusty informed me, that he found venesection attended with the same success as in the Russians; but, while he is firmly of belief that no other plan was equally successful, he candidly acknowledges that, in many cases, his expectations from the lancet were altogether disap-

pointed, while, in others again, it seemed to save several who were studded with petechiae,—a symptom that often manifested itself within thirty-six hours of the attack. After reverting to the failure of the lancet in cases where he had reason to expect success, he concludes,—“But these failures by no means argue against the propriety of the practice, where no other measure was equally successful; inflammation was still present, and to its consequences death was, in every case, clearly proved by dissection.”

In endeavouring to account for this contrariety of result in cases seemingly analogous, the operation of moral and physical causes, and particularly the varying influence of confinement and mental depression on different constitutions, with many other considerations, ought not to be overlooked.

To those who would infer that, if fever and inflammation be so frequently connected, and follow each other in the relation of cause and effect, blood-letting ought to be more uniformly proper and successful in fever, it may be answered, that, even could its existence be always immediately ascertained, yet such is the variety in the kind and degree of inflammation, according to the seat, nature, and period of the disease, as greatly to modify the result; for, in fact, with the exception of greater fullness of the vessels of the part, owing to the peculiarity of structure and the mutability of the animal powers, very different, and even opposite conditions, have been comprehended under this general term. It therefore by no means follows, that this operation should be indiscriminately resorted to; or, even setting aside its injudicious employment as to time or quantity, that it should be expected to prove uniformly successful in fever; for we know that this is far from being the case even in the purer phlegmasie, and that the diseases of this order neither always admit, nor can they be always arrested by extensive depletion. Upon the whole, however, I am inclined to think that the results were more favourable in the Russian than in the later fever; and, after making all deductions, that they were amply sufficient to prove the great superiority of this mode of treatment. The whole of the medical reports, and particularly those of Dr Douglas, concurred to substantiate the efficacy of early and decided blood-letting; and, when the many bad cases admitted into both establishments are taken into consideration, I think it may be fairly concluded, that the success was fully as great as could be expected in a disease so complicated as fever, and so often attended with dangerous congestions. Farther than I have above stated, I cannot pretend to lay down any precise directions for the employment of venesection. The

difficulty of going beyond general rules for the use of a remedy whose power is so much dependent upon the fluctuating state of the animal economy under disease, will be readily acknowledged. We must be guided by the evidence of local affection, by the nature, temper, and period of the disorder, and particularly by the actual effect produced by the operation; for, in different circumstances and persons, it will be borne with very different results, under symptoms apparently similar; hence the discordance of opinion,—the applause and censure that have attached to this remedy, since the earliest eras of medicine. What I have seen certainly authorizes me to believe that early blood-letting may be extended to cases of fever, in which it has been generally considered at least equivocal, if not prohibited. In favour of its late employment, which must ever require great caution and discrimination, and which can only be justified under very pressing symptoms, I have nothing whatever to say beyond what is comprised in the maxim of Celsus, “*Multa in precipiti periculo recte fiant, alias omittenda.*”

In farther support of these observations, I might here adduce, were it necessary, many high and well-known authorities, ancient and modern, in behalf of blood-letting in fever. But such a review would far exceed my object, which is impartially to portray its effects in the disease in question, not to advocate its cause in fevers in general; certainly not the indiscriminate or incautious application of this remedy, in habits debilitated by disease, intemperance, long residence in warm climates, or in unhealthy situations;—far less to countenance its rash employment late in this disorder. On the contrary, I am well persuaded that its late or injudicious use in dangerous fevers, such as those I have been most conversant with in the West Indies, would infallibly accelerate the fatal catastrophe; but, in climates where the disease is far less rapid, and where, from experience of its nature and tendency; of its pressure upon some vital organ; or of the inefficacy of other modes of treatment, we have reason to apprehend that it will run on to a fatal termination unless relieved, we are certainly warranted in making the attempt; and the success with which it was made in some of the above instances alone, is, I conceive, sufficient to justify this conclusion.

In leaving to be weighed in the varying scale of opinion the above evidence in behalf of early blood-letting, as a remedy for fever, the inference that the reverse of this proposition has often been assumed from theory, and not from experience, will probably be allowed to have some influence with the most sceptical, when it is reflected, that they who have written in its favour

have practised what they recommend; while it is hardly to be supposed that the humanity of those who are against it would permit their giving a fair trial to a measure which they believed to be injurious. In this fever, unfortunately, the cold affusion was but seldom deemed admissible, from the frequency of pulmonary, or other topical congestions.

Without entering into the different views with which epispastics have been used, they were employed with their usual good effects in mitigating pain and local symptoms; and they often proved serviceable in relieving the head at a later period of the disease.

It is, I trust, every day becoming less necessary to say any thing of the ill effects of opium, bark, or wine, in the early stage of continued fevers; in the debility left by the disease, the latter proved a most valuable and grateful cordial.

In appreciating what has been said of the effect of venesection, it should be recollected, that, in all cases, purgatives were freely used at the same time.

It is now well understood, that the value of the latter class of remedies is not limited to the mere removal of the fecal contents of the bowels, but that they may be so managed as to obviate or relieve a tendency to topical congestions elsewhere; and also to produce a considerable effect upon the general system, by the increased quantity of fluids they cause the various glands and exhalant arteries to pour into the intestines.

Thus they become not only eminently subsidiary when blood-letting is proper, but more universally useful in diseases in general, in proportion as they are more uniformly applicable.

They were here considered not only indispensably requisite in the first instance, and assisted by enemata when necessary, but they were liberally exhibited throughout the disease; and very often the bowels could not be kept sufficiently active unless they were repeated day after day. Though not a new, it is a most important observation, that all uncertainty as to the full operation of this class of remedies can only be removed by inspection, without which the practitioner is very apt to be led to imagine that the patient, from his own report, or that of the nurse, has been sufficiently purged, when, at most, he may have had only two or three partial scanty dejections. There is another reason for this; purging, though oftener carried to an insufficient length, I have reason to believe, in some instances, has been pushed too far, and hence its due limits can only be ascertained by personal observation. While we are producing foul, dark, fetid evacuations, we may naturally expect that we are benefiting and relieving the patient; but when the bowels have been freely

cleansed, and the system does not require further reduction, to keep up a constant state of irritation, by purging, can only prove wasting and injurious.

On the other hand, by those that have not had much acquaintance with fevers, it is hardly possible to calculate the quantity of medicine sometimes required to overcome the torpor of the intestinal canal; the morbid accumulations that have been discharged, after repeated purgatives; and, in some cases, the speediness of their reproduction.

In tropical fevers, especially, I have seen very striking examples of the abatement of fever and delirium, after the operation of purgatives; and it is therefore of great consequence to be aware, that the febrile symptoms are often maintained, or renewed, by the retention of vitiated secretions, or other morbid contents of the intestines; as also of the quantity of dark coloured offensive matter that is often discharged, after the patient has been thought sufficiently purged, and its speedy reaccumulation, in some cases, in order to estimate the extent to which it may be necessary to persist in the use of evacuates.

The choice of purgatives was not restricted in the present fever, where the stomach was so retentive: jalap and calomel was the purge most frequently employed, and, upon the whole, perhaps, the most efficacious. The latter was found a valuable addition to other cathartics, but it was seldom exhibited with any farther view, as the biliary system was little affected, and chronic visceral derangement, as a consequence of fever, rare.

Dr Fordyce, and other eminent practitioners, have observed that medicines of this class, when combined, occasion less sickness and pain, and are more certain in their operation, than when taken singly; a remark in which I beg fully to coincide. A mixed purgative, I am clearly of opinion, operates more effectually, and, at the same time, more easily, and in a smaller dose, than any remedy of this description individually.

Upon the whole, although, from their general and extensive utility, purgatives claim a great superiority in the treatment of various diseases, and of fever in particular, yet their value ought not to derogate from the efficacy, nor supersede the use of other agents; for, in the severer forms of fever, we find that blood-letting, purging, and the cold affusion, greatly, and mutually, assist each other.

Clifton, February 1816.

*From the
Author*

THREE CASES
OF
INFLAMMATION OF THE HEART,

WITH THE
APPEARANCES ON DISSECTION.

By ANDREW DUNCAN, JUN. M.D.
PROFESSOR OF MEDICAL JURISPRUDENCE IN THE
UNIVERSITY OF EDINBURGH.

[From the Edinburgh Medical and Surgical Journal, No. 43.]

worst; urine varies; when his complaints are severe, it is increased in quantity, and of a higher colour.

Began to complain about three months ago. Was first seized with the pain and sense of tightness in the region of the stomach. Can remember no cause for his complaints, except being exposed to cold and hard work. Nothing happened at that time particularly to affect his mind. Says he has used stomachic bitters and bark, without alleviation of complaints. Was formerly troubled with symptoms nearly similar to the above, but never to such a height. Was able always to follow his occupation, and enjoy a good appetite.

12th.—Is in the same state as when admitted, but has had no stool for two days. Pulse 105.

Capt. infus. cas. sen. $\mathfrak{z}\mathfrak{j}$. om. bihor. donec superv. cath.

13th.—The senna operated well, and he felt himself better until about two hours ago; since which time he has been affected with pain in the stomach. Pulse 100.

Int. infus. sennæ.

$\mathfrak{R}$ Pulv. cort. Cinchon. flav.

Pulv. rad. Valer. ss . M.

Capt. coch. parv. bis indies.

14th.—Complains of general pain in his shoulders and back, and more particularly of gripping pain in his bowels. Has also considerable vertigo when he walks, and some little appearance of globus, though not decided; no appetite; no thirst; belly natural; pulse 100, very small; tongue almost clean.

Cont. med.

15th.—Passed a better night, but complains of rheumatic pain in the shoulder and down the left side, and also of considerable heartburn, during the paroxysm of which, he expectorated a little blood. Belly loose; urine natural; pulse 104.

Cont. Pulv. valer. et cinchon.

Capt. Carbon. magnes. $\mathfrak{z}\mathfrak{i}$. pro re nata.

16th.—Slept ill last night from gripping pains, which still continue: Has also rheumatism of the back of his neck. Heartburn relieved, and has no globus. Pulse 104; no appetite; some thirst.

Cont. med.

Capt. statim haust. anod. cum tinct. opii gtt. xxv.

17th.—Still complains of rheumatic pains and of uneasiness after food, but he eats more than the house allowance. Belly natural; pulse 105, small; slept well from the draught.

Cont. med.

18th.—Complains of lightness of head, and also of pain in his back; belly and urine natural; tongue not clean; pulse 104.

Int. med.

Illin. dorsum ung. terebinth.

19th.—Still has many complaints of headach, general weakness and pains; slept tolerably; gripping pains rather diminished. Complains of pain even on slight pressure, a little below the scrobiculus cordis, and to the left side. Pulse 108.

Cont. med.

Illin. pars affect. tinct. sap. et opii.

20th.—Complains still of giddiness and oppression at his stomach after taking victuals; slept well; pain in the shoulder rather better; pulse 104.

Int. med.

Capt. infus. anthem. alkal. $\mathfrak{z}\mathfrak{j}$. om. trihor.

21st.—Complains of pains in his bowels, increased on pressure; of weakness and giddiness; pulse 104.

Cont. med.

22d.—Still complains of rheumatic pain in his shoulder; also of pain in the bowels, increased on pressure; pulse 104.

Cont. med.

Injic. enema fetid.

23d.—Complains much of pains in his belly, especially since breakfast; also of giddiness, and great weakness; slept well; says he perspires much; has acidity at his stomach; the pulsation of his heart is distinctly felt, even when lying towards the right side; and he has repeatedly fallen from his chair when sitting by the fire. Pulse 107.

Int. omnia.

$\mathfrak{R}$ Gum res. assafoetid. $\mathfrak{z}\mathfrak{i}$. Solve in decoct. malv. comp. $\mathfrak{z}\mathfrak{x}$.

Injic. bis indies, pro enemate.

$\mathfrak{R}$ Carbon. mag.

Pulv. rad. Valer. sylvest. $\mathfrak{a}$ $\mathfrak{z}\mathfrak{ss}$.

Capt. coch. parv. ter in die.

Let him have lb. ij. of beef-tea daily.

24th.—The injections came away immediately, and unmixed; he thinks that the pain in his bowels has been worse since; complains still of the soreness of his stomach; is very languid. Pulse 110.

Cont. med.

$\mathfrak{R}$ Infus. gentian. comp.

Vin. domest. $\mathfrak{a}$ $\mathfrak{z}\mathfrak{vj}$. M. Capt. cyath. ter indies.

25th.—Is extremely languid and weak, both in body and mind; bowels very loose; pulse 105, weak; H. natural.

Cont. vin. amarum.

$\mathfrak{R}$ Pulv. rad. Valer. sylvest.

Pulv. cort. cinchon. $\mathfrak{a}$ $\mathfrak{z}\mathfrak{ss}$.

Infund. in aq. bullient. lb. j.
 Agitentur in vase clauso per horas duas, colaturæ, adde
 Aq. cinam. ʒj.
 Æther sulph. ʒj.
 Syr. amom. zingib. ʒss. Capt. cyath. bis in hora,
 Illin. abdom. Ol. succini. ʒj. quam primum, et bis
 indies injic. enemata.

26th.—Is in a remarkably languid state; requires to be fed.
 His limbs are almost cataleptic, lying in whatever posture is
 given to them. Some singultus this morning; is very distinct
 when spoken to. Pulse 122.

Int. med.

App. vesicat. nuchæ.

R. Vin. rub. Lus. ʒvj.

Æther sulph. ʒij.

Tinct. opii, gtt. xl. M.

C. ʒss. om. semihor et sæpius, si op. sit.

Hab. etiam magnes. ʒss. pro re nata sumend.

Let him have a bit of steak.

27th.—Died this morning at seven o'clock.

Sectio Cadaveris.—The contents of the cranium, thorax, and
 abdomen, were carefully examined.

About an ounce of a transparent and colourless fluid was
 found accumulated between the dura mater and arachnoid coat,
 about the lower surface of the cerebellum; and the origin of the
 spinal chord, obviously collected here in consequence of the po-
 sition of the head after death, and in all probability partly de-
 rived from the spinal canal. Within the lateral and middle ven-
 tricles, there was also from half an ounce to an ounce of a serous
 fluid. The brain and its membranes presented no appearance
 of disease. The lungs adhered very extensively on both sides to
 the parietes of the chest, but chiefly on the right. The adhe-
 sions were close and strong. The substance of the lungs had
 undergone no morbid alteration of structure. The pericardium
 contained from six to eight ounces of a greyish muddy serum,
 with flakes of a curdy matter. The heart had suffered a change
 of texture, not less singular than extensive. The whole parietes
 of the right auricle, and the anterior side of the corresponding
 ventricle, were found converted into a greyish-coloured substance
 of a very uniform texture, and having the consistence nearly of
 the prostate gland. There was not the slightest vestige of any
 of the natural tunics of the heart in this substance. The pa-
 rietes of the left ventricle had undergone a similar change for
 about an inch all around its auricular orifice, and there was fully

a third of the septum between the ventricles, towards the base
 of the heart, converted into the same substance. Between the
 arterial orifices too, the septum was a little thicker than usual.
 The inner surface of the right auricle was covered with a sort
 of efflorescence, not unlike that which is often exhibited by hy-
 datid cysts. The left auricle exhibited no morbid appearance.
 The valves, tricuspid, mitral, and semilunar, were of their natu-
 ral structure, as also the roots of the pulmonary artery and aorta.

Within the cavity of the abdomen, there was most exten-
 sive disease. The whole mesenteric glands were enlarged, so as
 to form one irregular mass. When divided, they exhibited an
 appearance like that already described, as having been found in
 the sides of the heart. The whole of the colon had its coats
 thickened and rendered exceedingly tender. At various points
 of it, there was a vascularity accompanying this thickening,
 which indicated inflammation. At other parts, the sides of the
 intestines had become considerably thinner, and projected in the
 form of little pouches, which adhered to the parts with which
 they happened to be in contact. The whole of the jejunum, and
 a great part of ileum, were in the same state. In the angle
 formed by the junction of the transverse part of the colon with
 the large curvature of the stomach, which were found closely
 applied to each other, there was a stratum of half an inch broad,
 and a quarter thick, of the same sort of substance as was found
 in the heart. Towards the surface of the liver, in its right
 lobe, and at its upper convex part, there was a knot of the same
 kind of matter, of the diameter of a shilling; but, in other re-
 spects, this organ had a healthy appearance. There were two
 or three nodules of a similar matter, in the substance of the
 pancreas. The spleen presented nothing remarkable.

There was about a pint of serum effused into the cavity of
 the abdomen, which, except where it had touched the gall-blad-
 der, and in consequence acquired the colour of bile, was of the
 usual yellowish tint, and quite transparent.

This case appears interesting.

1st, From its rapid and unforeseen event.

2d, From the appearances discovered on dissection.

When admitted, it was supposed to be a case of hysteria in a
 male,—a rare occurrence, yet not unobserved. Some consider
 hysteria and hypochondriasis as the same state of disease, modi-
 fied by sex; the former being peculiar to women, the latter to
 men. This is in general true, but exceptions do occur; and it is
 not sufficient to reject all the testimonies adduced in proof of
 this, because we ourselves have not seen it. Unequivocal cases

of hysteria in men have been seen by Dr Trotter and others. Hypochondriasis certainly oftener affects females.

The difference between them depends much on temperament. Hysteria is peculiar to the sanguine, and hypochondriasis to the melancholic temperament. In hysteria, the affections of the mind are characterized by fickleness and mobility; in hypochondriasis, by the obstinacy with which the mind broods over a single subject. In hysteria, the patient is violently affected by every circumstance external to herself, and is agitated by every sudden impression; but the paroxysm is no sooner over, than she laughs at her own folly, thinks no more of it, and resumes her wonted spirits. In hypochondriasis, on the contrary, external circumstances make little impression on the patient; and if a sudden and violent impression rouse him for a moment, he speedily returns to brood over his loss of health, or finds in what has just passed fresh cause for despondency.

The symptom in Baxter giving rise to the idea that his disease was hysteria, was the accurate description he gave of the globus hystericus. But after he came under our care the symptom did not recur.

I was then led to consider his complaint as hypochondriasis, from the pain of stomach, increased on taking food; the irregular state of his urine; the costive belly; flatulence; interrupted sleep; bad appetite; foul tongue, and bad taste in his mouth; and still more by his constant complaints. I therefore left him a day or two to observe the symptoms.

On the 23d it is reported that the pulsation of his heart is distinctly felt, even when lying on or towards the right side; and it is remarkable, that, except the weakness of the pulse, and its occasional frequency, this is the only symptom connected with the state of the circulation noticed in the reports. It indicated a labouring action of the heart; but I did not perceive any irregularity in its action; and as it is a common symptom in hypochondriasis, from sympathy with the state of the stomach and bowels, it did not farther attract my attention.

Another symptom was noticed the same day, that he had repeatedly fallen from his chair when sitting by the fire. This might either proceed from syncope, or a nervous paroxysm, or from falling asleep; and I was positively assured that it proceeded from the last cause, which, in his debilitated state, was very probable.

This day his complaints first appeared to me to be serious, and I resolved to try with him Kaempfer's method of treating hypochondriac affections. I therefore ordered him to get two of his

visceral injections daily. But, in this case, they did no good whatever, and the treatment was disagreeable both to the patient and the nurses.

On the 25th, his appearance was strikingly worse, and he was reported extremely weak both in body and mind. He was now evidently sinking. He was lying almost without sense, or the power of motion. Not having seen him for many days except in bed, it was not easy for me to judge of any gradual decrease of strength, but it was now too great to escape notice; and although I did not report it, I had observed that, for some days past, he spoke in an inarticulate mumbling manner; but after it attracted my notice, I could not ascertain whether it was his natural mode of speech, or the effect of disease.

On the 26th, he was still much worse; he seemed to have lost all muscular power; he required to be fed as a child; he sunk down to the bottom of his bed, and his limbs, which were perfectly supple, lay lifeless in whatever situation was given to them. He had also some hiccup, but seemed to retain his senses, or at least answered when spoken to.

My idea of his present complaints was, that effusion had taken place in the brain or upon the spinal marrow, oppressing the powers of life. The debility was evidently not the effect of fever, and it was too great and too quick in its progress, as I conceived, to be the effect of inanition or natural wasting. I therefore ordered a blister to the nape of the neck, and a stimulant cordial, with full diet. But these remedies were of no use, for he died next morning at eight, having been seized the evening before, at eleven, with very difficult and laborious breathing, amounting almost to convulsions.

The body was opened next day by my friend Dr Gordon, to whom I am indebted for the very accurate and excellent account of the appearances observed.

It discovered causes of the man's complaint, totally different from what I had conjectured; some of which corresponded with some of the symptoms which had affected him, but others had not been indicated by any thing observed.

The heart was found to be most extensively diseased, indeed to an extent which, from the importance of the organ, seemed impossible; and what is still more singular, it had not been accompanied by symptoms of any disease whatever of that organ, which shews how very difficult is the diagnosis of the diseases, even of the most important internal organ.

The pericardium did not seem in any way diseased, but it contained from six to eight ounces of a greyish muddy serum, with flocks of a curdy matter." Besides the increased quantity of

fluid, its appearance indicated a considerable degree of preceding disease in the membranes which furnish it, although no signs manifested its existence during the life of the patient. The muddiness of the fluid, and the flocks of curdy matter contained in it, are effects which we would naturally expect to have been preceded by inflammation of the pericardium; yet neither did any symptom occur before death, nor did the uniformly smooth surface and natural structure of that membrane after death, afford any proof that inflammation of that membrane had previously existed; on the contrary, it was almost certain that it had not recently existed.

Corvisart* describes three species of pericarditis, the acute, sub-acute, and chronic. The last he admits to be a disease of a very obscure nature, chiefly from the various complications natural to it, so much so, that he considers it as being generally the consequence of some preceding disease. He says he has frequently met with it, and always found the diagnosis difficult, and very obscure, and that he does not wonder that it should embarrass practitioners at the bedside of the patient. In the instance which he gives of it, he considered the chronic inflammation of the pericardium proved, by its being thickened and containing a turbid liquid; but, during life, there were manifest symptoms of deranged circulation and respiration, although they did not indicate precisely the nature of the affection. There was great variation in the action of the heart and arteries. The pulse, always quick, was alternately regular and irregular in every possible way, and the respiration was short, embarrassed, frequent, and accompanied by a sense of weight at the ensiform cartilage.

In Baxter, the pulse was uniform, not very quick, ranging from 100 to 110, and always weak; the action of his heart, indeed, seemed to be inordinate, but his respiration was perfectly natural. And as there was no thickening of the pericardium, the proof of inflammation rests entirely upon the fluid being turbid, and containing flocculi of a curdy matter.

Other authors have also noticed a similar change in the liquor pericardii. Morgagni found more than the usual quantity of somewhat turbid fluid in a negro who died suddenly without any previous disease; but here he ascribes the death to the vessels of the brain containing air.—(Ep. v. Art. 17.) In another case (Ep. x. Art. 13), it was connected with an immense exostosis of

* A treatise on the diseases and organic lesions of the heart and great vessels, by J. N. Corvisart, M. D. translated by C. H. Hebb, pp. 404. 8vo. London, 1813.

the spine, pressing forward the ensiform cartilage. In another (Ep. xx. Art. 53), it was preceded by pain in the middle of the thorax, and the patient required to have his head elevated, although he could lie upon his back, and a little on his left side. In others (Ep. xxi. Art. 9, 24, 36), it was accompanied by pleuritis; and in one (Ep. xxii. Art. 24) with tubercular phthisis. But the following case, from the same indefatigable and excellent observer (Ep. xlv. Art. 23), deserves to be noticed more fully, as it resembles the case of our patient more than any other I have met with.

"A Venetian woman, aged forty, of the lowest order, addicted to wine, and of dissolute manners. She was fat and healthy, but was exceedingly timorous, and the slightest cause produced trembling, and almost fainting. She often could not retain any solid on her stomach, and could never taste fish. But, on inquiring after her other complaints at her intimates, they uniformly denied that she ever complained of her head or her heart, and particularly never of violent pulsation, palpitation, or any other affection of that organ, and she had never had inflammation of the thorax. Her only complaint was of the uterus, which she asserted moved about in the abdomen, and ascended to her throat, sometimes with a sense of suffocation, from which she was however speedily relieved.

"On the evening of the 1st January 1709, she complained that her ribs were as if cutting her, and sent for a woman whom she supposed could give her relief. Next morning, she said that she was seized with a very violent hysteric affection, and that her uterus, moving about, had ascended to her throat, and was choking her. But in one or two hours, at the most, she died, without having had any convulsions visible by the bystanders, or any frothing at the mouth."

She was dissected ten hours after death, and Morgagni having doubts that it had actually taken place, proceeded with the utmost caution, after having made all the usual experiments to ascertain it.

Her limbs were not emaciated, but her abdomen and thorax were excessively fat, inasmuch so, that her ribs were pressed in, and her sternum protruded by the size of the mammae. There were adhesions of the lungs, slight on the left side, but very general on the right, with the presence of a pseudo-membrane. In the lungs were several hard, and as if tendinous places, and they were filled with frothy saliva.

The pericardium contained a good deal of turbid brown fluid. In the heart itself, the left ventricle was diseased. Not to mention that the tendinous fibres, which pass from the mitral

valves and columnæ, were more numerous than usual, certainly the columnæ themselves were thicker and harder, and seemed rather tendinous than fleshy; whether the colour was considered, which was white, or their greater firmness when cut with the knife. Besides, in the parietes of the same ventricle, there were places here and there in which the fleshy substance of the heart was either white or reddish white, so that at first they appeared like glands; but, on being cut into, offered the same resistance as the columnæ.

This degeneration of the flesh of the heart into a tendinous nature was more evident towards the outer than the inner surface of the ventricle, and was visible on that part of the outside, corresponding with the septum. The aorta, from the heart to its arch, was evidently, but slightly, dilated, and was contracted near the diaphragm. When cut up, and the blood which it contained was discharged, its whole internal surface from the heart, at least as far as the emulgents, exhibited some projecting whitish particles or threads, and, wherever it was tried, the inner coat of the artery separated in large pieces from the next coat, with the slightest rub of the scalpel.

There was also considerable disease in the abdomen. The situation of the intestines was deranged; the omentum was drawn back to the spleen; the intestines, especially the colon and rectum, were distended with air. The mesentery, stomach, spleen, and liver healthy. The pancreas, and some of the small intestines red, and the glands firmer and more distinct than natural. Upon the posterior surface of the uterus there was appended, by a short neck, a small body resembling an unripe cherry in whiteness, form and size. On being cut into, it was formed of confused callous fibres. Another tumour of the same kind was in the substance of the uterus.

In investigating the organic diseases of the heart, it may be considered,

1st, As a muscle; that is, merely as being an organ consisting chiefly of muscular fibres:

2dly, As the centre and chief organ of the circulating system. In the first point of view, it may be considered as liable to the same diseases as other muscular organs; and, therefore, its obscure diseases may be illustrated by what occurs more evidently in them.

Muscles in general may suffer organic alteration,

1. In their form or structure;
2. In their composition.

Under the first head we include their number, size, situation, connection, &c.; in short, all those great or more obvious

deviations from the natural arrangement, which are easily detected by the knife of the anatomist, and, when once established, do not easily return to their original state.

Alterations in their composition consist in more minute changes, some of which even altogether elude our observation, while others are sufficiently obvious. They depend chiefly upon a change in their chemical constitution, and modify, if they do not determine altogether their powers.

The muscular fibre consists chiefly of that substance called by chemists fibrine; but it also, almost always, contains a colouring matter, gelatine and extractive.

Fibrine in itself is without colour, or white, as we see in the flesh of some fishes and birds, and in the fibrine obtained by chemical analysis from the blood.

It is not yet ascertained upon what the red colour of the flesh of man, and the higher orders of animals, depends. For the fact, that red muscles become white by washing, does not prove that the red colour depends upon the blood, but only that the colouring matter is soluble in water. Fishes have red blood, and yet many of them have white muscles, and in some animals, different muscles differ very much in colour. This is especially remarkable in the black-cock, where the outer layer of pectoral muscles has a very dark colour, and the inner is white, so that, in cutting out a slice of the breast, we have flesh of two very different colours, and yet supplied with the same blood, and even from the same arterial trunks.

In adult animals, the difference in the composition of their muscular organs is very striking; but, in all animals, from the moment of their existence to their final dissolution, there is a constant change going on; not merely that change by which one set of particles is removed as excrementitious, and replaced by another set of almost similar particles as nutritive, but a change by which the composition or chemical nature of the muscle is gradually changed.

At first, and in the embryo, the muscles are gelatinous. Haller found that the intestines of the common chick evince no irritability before the sixteenth day. Gradually the fibrine becomes preponderant, and in old age further changes take place.

But these changes are natural, and correspond with the situation of the animal; and they depend upon the concurrence of a variety of causes, the supply of a certain quantity and quality of blood, and a determinate degree of action in the exhalant and absorbent vessels, and this action is again connected with the agency of the nerves. Now it is evident, that, if any of

these causes be materially affected, a diseased or unnatural composition of the muscle must immediately follow.

By increased absorption it is wasted; by increased assimilation it is augmented in bulk; but the change is often not so simple, and fibre of the natural constitution is supplied by that which is not natural.

Accordingly, we find muscles altered not only in their colour, density, and cohesion, but even in their very nature. We find them converted into fungous or scirrhous masses, or other diseased composition, or into cartilage, tendon, bone, &c. substances not in themselves morbid, but here unnatural.

A change of this kind had taken place in Baxter's heart. The greater part of it had lost its natural red colour, and was almost white. This in itself is here a mark of disease; for, although in different individuals the intensity of the red colour of the heart differs naturally, as well as the colour of other muscular organs, yet the natural colour does not exceed certain limits; and when there is great and strikingly morbid differences between different parts of the same muscle, it seems always to proceed from disease.

But it was not merely in colour that the deviation from the natural composition of this heart was evident. Its texture or grain was also evidently changed, for, in that portion which had lost its natural colour, the fibrous arrangement natural to it was everywhere obscure, and in some places not to be discovered, even with the aid of a lens. It was not, however, absolutely destroyed, because, by boiling, it not only became hardened and crisped, though in a less degree than the natural fibres, but I succeeded, by very long boiling, in perfectly developing its fibrous texture. In short, the change of texture can be best described by saying, that, in a considerable portion of this heart its grain had become much finer than natural; so fine, indeed, that, without the assistance of art, the fasciculi upon which the grain of muscles depends could not be recognized.

This change was dispersed through different parts of the heart, but was chiefly obvious in the right auricle, septum, and left ventricle. In general, the change was less perfect near the inner surface, so that there the flesh, though white, was still visibly fibrous; while, as it approached the outer surface, its fibrous arrangement disappeared altogether. Yet, in the midst of these cartilaginous-like portions, a small bundle of red fibres was occasionally intermixed.

As it is highly improbable that an alteration of structure of this kind took place in the course of the few days during which Baxter declined so rapidly, we may suppose that it is not incon-

sistent with the heart carrying on its functions with tolerable regularity.

To ascertain this point, however, we should compare the phenomena which have occurred in other cases of the same kind,—but here we altogether fail; for, so far as I have been able to discover, no case exactly resembling this, in the kind of alteration of substance, has been observed, unless, perhaps, that which I have translated from Morgagni.

It is not unusual to observe white opaque spots upon the surface of the heart, sometimes thicker, and sometimes thinner; sometimes more, sometimes less distinct; and, at first sight, this heart seemed to present a spot of this kind, larger, thicker, and more distinct than usual; but, on cutting into it, the difference was obvious, for these spots are owing to the formation of a false membrane exterior to the proper coat of the heart, so that it can be removed, and leave the heart covered with its proper tunics. This appearance occurs so often, that Baillie and Soemmering do not consider it as being morbid. In Baxter's heart, however, it appeared that the white spots were owing to the substance of the heart itself being altered in composition.

But the alterations of the substance of the heart most resembling that of Baxter, are those in which part of it has been said to be converted into fat, adipocere, cartilage, or tendon. There is commonly some fat about the heart, and occasionally its quantity is enormously increased; but the state of Baxter's could never be mistaken for this disease, as in these cases the fat is external, and obviously a morbid accumulation of a substance otherwise natural. Weitbrecht is often quoted as having seen the substance of the heart converted into a mass like bacon, or lard, consisting of several layers, more or less thick; but, upon reading the particulars, as extracted from the Petersburg Trans. by Senac, it was evidently only a layer or layers of coagulable lymph deposited on the outside of the heart, and separable from it, which he only says in some places resembled lard; but he distinctly states, that it hardened in boiling water, and shrivelled when laid upon a hot iron.

However, there is no doubt, that the muscles in the living body are occasionally converted into a really fatty matter, as proved by its fusibility and inflammability. A recent instance of this in a sheep has produced a pamphlet from Dr Vaughan.*

* Some account of an uncommon appearance in the flesh of a sheep. By W. Vaughan, M. D. pp. 28, 8vo. London, 1815. See this Journal, Vol. X. p. 57.

Therefore, it may have happened to a certain degree with regard to the heart,* and, in its incipient state, would have a good deal the appearance of Baxter's heart. Indeed, as this was the most natural conversion of muscle, I thought it necessary to ascertain, by chemical experiment, whether it had occurred in Baxter's; but it both hardened in boiling water, and shrivelled on a hot iron, giving out the smell of burnt feathers, and yielded not a particle of oil or grease to any trial.

Another alteration is, where it becomes tendinous or callous. Albertini found the substance of the heart tendinous in the half next the basis; Schaarschmidt the substance of the heart quite callous sometimes the depth of two lines; Morgagni (Ep. xviii. Art. 34.) saw the heart larger, harder, thicker, and as if tendinous; there was also ossification of the aorta. She was a woman of 40, who had laboured for six years under difficulty of breathing, resembling spasmodic asthma, and died expectorating thick pus. At no time could the pulse be felt in her wrists, and yet, on dissection, the artery did not seem to deviate from its natural arrangement. The case already quoted from this author may be again mentioned.

The next morbid appearance noticed in Baxter's, was a sort of efflorescence, covering the inner surface of the right auricle, not unlike that which is often exhibited by hydatid cysts. It consisted of globular and pedunculated masses, attached to the parietes, and had very much the appearance of fatty particles; but on analysing them by fire, they were evidently fibrine or albumen, at least when placed on hot iron they did not melt, but shrivelled and burnt with the smell of feathers.

The question in regard to these is, whether they existed during the life of the patient, or were first formed by the gradual coagulation of the blood after death, and the concretion of its coagulable lymph with the sides of the auricle. But, besides occurring in the auricle, it appeared that a similar substance, but more in the form of a membrane, had lined the right ventricle, at least fragments of it, passing under the columnæ carneæ, still remain in the prepared heart.

Except in general form, these have a considerable resemblance to the polypi of the heart, about which it was so long and is still disputed, whether they were formed before or after death; and probably the same arguments may apply here, as the only difference is, that in the usual form of polypi, there are one or

* Since these observations were written, I have found the heart itself partly converted into fatty matter. See Case II.

more long fibrous-like masses of considerable size, often entering into the mouths of the vessels. That the great majority of these are formed after death there cannot be a doubt; indeed, there are few bodies in which they are altogether wanting; but still there seem to be incontrovertible proofs of their being occasionally formed during life. The most decisive instance of this that I have met with, has been admirably described in this Journal,* by my friend, Mr W. Wood. Indeed, I am inclined to think that the loose body, as well as the attached mass, observed by him, had the same origin with what Dr Gordon and myself have denominated the efflorescence in Baxter's heart. At any rate, they prove the possibility of its having existed there long before death, which becomes more probable when we consider, that such an appearance would be often observed, if it originated in the coagulation and separation of the blood in the heart after death, as in this there can be no great diversity. The great objection to this opinion, is the natural state of the circulation during life; but this admits of explanation, as no part of this efflorescence was loose, or situated so as to obstruct the flow of the blood.

There are three ways in which such concretions may be formed: 1. By an organized growth from a surface of greater or less extent. 2. By an inflammatory exudation from a living surface, such as takes place often on the lungs, and sometimes on the outer surface of the heart itself. And, 3. The coagulation of blood, in consequence of a portion of it being removed out of the current of the circulation, and becoming stagnant.

In the first manner are formed tumours, warts, &c.; and sometimes even loose bodies, by their subsequent separation, when originally attached by a narrow neck; † but this could not be the process in the present instance.

In the second way are formed all false membranes and adhesions, for the exuded lymph afterwards becomes organized, from the shooting of vessels into it. Concretions formed in this way are known by their generally adhering to the surface from which the exudation took place, or, if they have become loose, by their having a membranous or flocculent form. There was evidently a tendency in this man to the exudation of lymph, as evinced by the adhesions formed in various parts of the body; and

* Vol. X. p. 50.

† See a paper of Mr Wardrop's, on moveable bodies found in the scrotum, in the third volume of this Journal, p. 421; and another on an albuminous concretion found in the thorax, in the ninth volume, p. 11.

the peculiarity of appearance of the efflorescence in the heart, that is, its being rounded into little masses, might be accounted for, by the peculiarity of the surface upon which it was exuded, viz. a reticulated muscular surface, in a constant state of alternate contraction and dilatation.

Concretions formed in the third manner are generally massive, long, and fibrous; in short, more like a polypus. Still these concretions may have arisen in this way, if we suppose, that, in consequence of its becoming less fibrous, the heart did not contract so readily, and did not empty itself at each systole, it would only propel the blood in the direct current of circulation, while that at the sides, lying among the muscoli pectinati, might become stagnant, and have time to coagulate into grumous masses, which would soon acquire the appearance we saw in Baxter.

But, in whatever way they were formed, although I think the aetiology of such appearances always useful in leading us to further investigation and more accurate observation, the discovery of a means of removing, after they are formed, would be much more desirable. This is a degree of progress in the healing art which we can scarcely hope to attain; and, therefore, any means which presents the slightest chance of success, although apparently strange, deserves attention; and so I am disposed to consider M. Sherwen's proposal of scorbuticizing the system, first suggested in the Gentleman's Magazine for 1798, and afterwards renewed in this Journal for January 1814.

The last part of this man's dissection which I shall notice, was the great mass of disease found in the abdomen, and of it I shall say very little, as it has been sufficiently described by Dr Gordon. There were traces of inflammation, adhesion, formation of albuminous tumour, and a most extensive affection of all the mesenteric glands; and in the liver one of those tubercles so well described and depicted by Dr Farre,* under the title of *Tubera diffusa*. These appearances sufficiently account for the sensations of this patient; the pains in his belly, the feeling of a ball moving about, &c.; and all tend to shew the extensive manner in which the system was diseased, and the incurable nature of his complaint.

* *Morbid Anatomy of the Liver*. By J. F. Farre, M.D. 4to, London. Part I. 1812. Part II. 1815. I have referred this to the *Tubera diffusa*, as similar tubercles were found dispersed in various structures of the body; but from its determinate figure, and existing singly in the liver, it more resembled the *Tubera circumscripta*.

CASE II.

MARY RICKMAN, æt. 22, married.—March 11, 1815.

Complains of cough, attended with considerable expectoration; pain in the thorax, more particularly referred to the sternum and between the scapulae, increased by full inspiration and cough; and of difficulty of breathing, aggravated by exertion. She is unable to lie in the horizontal position.

Complains also of pain in the right haunch, increased by pressure and exercise, but unattended by swelling. There is also considerable swelling of both ankles, which pits slightly on pressure; but there is no discoloration of the skin, nor is there any pain. Pulse 88; H. moderate; tongue rather white; much thirst; appetite bad; B. costive; catamenia irregular; urine natural; sleeps ill.

Complaints first began about ten days ago, with shivering and flushing; pain in the breast and cough, followed the next day by pain in the shoulders, elbows, knees, and right haunch; but the pain in all these joints, with the exception of the last, is now gone.

Has been bled, and taken purgatives and diaphoretics, but with little benefit.

Attributes her complaints to exposure to cold.

Mitt. sanguis ad 3xij. pleno rivo.

App. vesicat. parti affect.

12th.—Was bled last night; no buffy coat on the blood, which, however, is tolerably firm. The blister applied to her side rose very well; but, as she was not relieved this morning, she was ordered to be bled again, but would not submit to the operation. Has a very severe cough, which distresses her much; and she has had no sleep for eight nights past. Has had no stool. The pain in the side, where the blister was applied, is relieved, but it is more severe in her breast. Pulse 88, rather full, and somewhat hard.

Capt. inf. cassiæ sennæ ʒij. omn. horâ donec supervenerit catharsis.

Curetur ulcus vesicat. unguent. sabine.

Rept. sanguinis detractio ut antea.

13th.—Was bled from the jugular vein, at three yesterday afternoon, to the extent of 5x. The coagulum is pretty firm, but there is no buffy coat. She was relieved at the time; but her severe cough has brought back the pain, which is very distressing and general over the breast. Slept none. Her bowels were moved by some senna which she got yesterday. Great thirst; little appetite; pulse 80, and soft.

R. Mist. scill. $\bar{z}$ vj.

Tinct. opii $\bar{z}$ j.

Capt. $\bar{z}$ ss. secund. quaque hora vel pro re nata.

Et app. vesicat. magnum pectori.

14th.—Slept a little last night, and the pain of her breast is somewhat relieved. The blister has not yet been removed, but has risen. She has had less cough, but this morning complains of considerable sickness. Pulse 92, full, but soft; skin hot, but slightly moist; belly costive; urine scanty.

Cont. mist. scill. et curetur pars exulcerata ung. junip. sabine.

Capt. infus. cassiæ sennæ $\bar{z}$ j. donec supervenerit catharsis.

15th.—The pain in the side is gone, but there is still some in the breast when she coughs, which has been very troublesome. Through the night expectoration considerable; B. regular; urine natural; pulse 78, full and soft; tongue whitish.

Cont. foniculus.

Intermit. mist. scill. et

R. Mist. mucilag. $\bar{z}$ vi.

Tinct. opii $\bar{z}$ j.

Capt. $\bar{z}$ ss. pro re nata.

16th.—The pain in her breast is almost gone, but she has a great deal of very severe coughing, and much nausea. Her spirits are considerably depressed. B. and urine natural; pulse 74, and soft; heat natural; tongue white; great thirst; no appetite.

Cont. mist. mucil. anod.

Habeat vini domest. $\bar{z}$ j. indies, beginning to-day.

17th.—The pain of breast entirely gone. Says she sleeps ill, but appears to dose a great deal. Pulse 80, soft; H. natural; functions natural; thirst gone; no appetite.

Intermit. mist. mucilag. anodyna.

Et capt. lineti communis coch. minus subinde.

18th.—Slept ill last night; cough and expectoration considerable. Has considerable nausea and retching, and vomited this morning some green bitter matter. Pain of breast gone; pulse 90; H. natural; tongue white; some thirst; no appetite.

Cont. linctus, et capt. Pulv. rad. ipecac. $\bar{z}$ i. pro emetico.

19th.—The cough continues better; but she was seized during the night with pains in her bowels, and perpetual tenesmus, without any evacuation. She got an emollient injection this morning, which was quickly rejected, without giving her much

relief. Pulse 88; tongue clean; skin natural. She got the emetic yesterday, which operated well.

Cont. linctus.

Foment. abdomen stat. decocto malvæ comp.

Capt. stat. opii gr. ij. et post tres horas haust. ex. ol. ricini.

20th.—Took the opium pill immediately after dinner, and felt easy till about eight o'clock at night, when the cough recommenced with increased severity, and prevented her from sleeping. The castor oil operated moderately, but at this morning's visit her complaints appeared to be considerably increased; she had great pain of the breast, much cough, and her pulse was full and hard. She was ordered to be bled to the extent of $\bar{z}$ x. and a blister to be applied. From the smallness of the veins only $\bar{z}$ vi. of blood were got, and she has coughed less since, but feels no diminution of the pain, and her pulse is still somewhat hard. Respiration somewhat laborious; pulse 100.

Cont. linctus, et capt. Pulv. jalap. comp. $\bar{z}$ ss. et repet. dosis si opus sit.

21st.—The purgative powder acted with considerable severity, attended with gripes; is not able to lie upon her back, and was obliged to sit up all night, leaning upon her breast, but never slept.

She also complains of flatulence, proceeding upwards from the stomach, and of dyspnoea, and of a sensation of hollowness or want in her chest. Pain relieved, and not much cough, but she expectorated a great deal during the night. Pulse 88, and moderately full; tongue clean; H. natural.

Habeat trochisc. glycyrrh. c. opio. numero xxiv. quarum capiat. unum pro re nata.

Cont. linctus, et utatur semicupio quam primum.

22d.—Is still much distressed with the breathlessness, but has had no sleep during the night. Cough rather looser after coming out of the bath; but her breathing was very much affected.

Has still some pain of belly and tenesmus. Pulse 104, and soft; skin rather warm; did not get the lozenges yesterday.

Intermit. semicup. Rep. trochisci et linctus, et injic. enema emolliens quam primum.

23d.—Has had no sleep from being unable to lie down on account of the cough, and is greatly distressed for the want of it. Has rather less cough when she sits up. Has considerable pain in her breast when she lies on the right side. Expectoration a white frothy matter. Has still great tenesmus, and the emollient glyster gave her no relief. Considerable thirst; no appetite; pulse 110, and natural; B. costive.

Cont. linct. et trochisci, et capt. tinct. digital. gtt. x. omn. trilio, atque injiciatur quam primum enema purgans.

24th.—Has passed a sleepless night, and cannot lay herself down. Rather more cough and less expectoration. Complains also of pain in her throat, which she distinctly refers to the trachea. On examining the fauces, some inflammation is visible.

The purgative injection had no effect, and she has got infusion of senna this morning, which has not yet operated. Pulse 108, and full; tongue clean; some thirst.

Cont. med. et inf. sennæ, atque illinatur guttur anterius oleo ammon.

25th.—Had a blister applied to her throat yesterday, and had about two hours sleep before it began to rise. Since that time the pain in the trachea is better; but this morning her cough has returned with severity. Expectoration white and frothy; very copious. Has much dyspnoea. Complains also of her legs, which are very much swelled and tense, though they pit slightly on strong pressure. They are also painful to the touch. Pulse 106, not full.

Intermit. med.

Et capt. mist. scill. $\bar{z}$ ss. pro re nata.

R Ol. volat. terebinth.

Ol. camphor. $\bar{a}$ $\bar{z}$ ss. M. agitando, et mistura illinatur crura.

Let her have a little bit of beef-steak to-day.

26th.—Is still very much distressed with cough and dyspnoea. Cannot lie in bed, but slept some sitting in a chair. Expectoration copious, frothy, but of a purulent appearance. Was seized last night with a sense of straitness across her chest, which was relieved by a draught of æther and laudanum. Her legs are less painful since they were rubbed with the oil. Urine scanty; B. natural; pulse 108, rather full.

Intermit. med. et

R Syrup simp. $\bar{z}$ iv.

Tinct. opii gtt. xl.

Mucilag. mim. nilot. $\bar{z}$ j.

Æther sulph. $\bar{z}$ j.

Capt. coch. subinde.

Cont. frictio.

27th.—Was somewhat relieved by the mixture, and got some hours sleep sitting in the chair; but she is unable to lie down, and is much distressed with pain in her back and head, apparently from fatigue. Legs still very much swelled, but not painful. Pulse 114, full; B. regular; urine scanty; considerable thirst; expectoration copious, and swims in water.

Cont. med. et capt. tinct. digital. gtt. xij. ter indies.

28th.—Was very ill last night, but afterwards had some sleep. Is unable to lie on her back, and is easiest upon her breast or left side. Cough and expectoration continue. B. natural; urine copious; pulse 100, and of moderate strength; H. natural.

Cont. med.

29th.—Slept a good deal last night, kneeling upon the floor, with her breast against the bed. Cough and expectoration continue. Pulse 112; each alternate beat being much weaker; B. regular. Says that it is chiefly owing to the pain of her thighs that she cannot sleep, which, however, are less swelled than they were some days ago.

Cont. med.

Et illinant. crura tinct. sap. et opii.

30th.—Has still great dyspnoea, but slept a good deal upon her knees. She sometimes rests upon her hands and knees, to get freer breath, and cannot lie at all upon her back. Still coughs, and her expectoration is copious and purulent. She has also great distress from the swelling of her legs, which are very oedematous as high as the knees. Pulse 100, and natural; little thirst; no appetite; B. regular.

Cont. med.

Et habet haust. ex tinct. opii gtt. xxv. atque æther sulph. $\bar{z}$ j. h. s. sumend. atque scarificentur malleoli.

31st.—Would not permit the scarifications to be made. Had a little rest in her usual posture. Expectoration freer; breathing laborious; pulse 80, and intermitting.

Cont. med.

Et cap. pil. myrrhæ et ammon. gr. x. bis indies.

April 1st.—Continues much in the same state. Pulse 100, not weak.

Cont. med.

2d.—Passed a bad night from a fresh attack of pain in her left side. She also complains much of flatulence. Pulse 110, full, and rather hard; B. regular; great thirst; little appetite; less cough and expectoration.

Mitt. sanguis ad $\bar{z}$ vj. statim.

Intermit. med. et capt. solut. gum. ammon. $\bar{z}$ j. om. bihorio.

3d.—Was not relieved by the bleeding last night, and thinks her cough rather worse. Expectoration as before; and she is greatly fatigued from being unable to lie in bed. Pulse 104, full and soft.

Cont. sol. ammon. et Hab. linct. opiat. $\bar{z}$ ss.

Let her have some currant-jelly to-day, and daily.

4th.—Is still unable to lie down. Cough as before. Spitting decreased, but it is much tinged with blood. Pulse 100, and full.

Cont. med. et Capt. h. s. haust. anodyn.

5th.—Had some hours sleep, which refreshed her a little; rather less cough; expectoration diminished, and tinged with blood. The sternum, when struck, does not emit a hollow sound; and the pulsation of the heart is very distinctly felt lower than the ensiform cartilage. Pulse 110, natural; great thirst; little appetite; B. regular; urine natural.

Cont. med. et scarificentur pedes.

Let her have some good small-beer.

6th.—The scarifications made in her feet discharged a great quantity of serum during the night and this morning, and the swelling of her legs is entirely removed. Is however in great distress, from not being able to rest. Pulse 100, and natural.

Cont. med.

7th.—The scarifications have continued to discharge very freely, and relieved almost entirely the swelling of her legs. Her breathing also seems to be somewhat relieved by it, and her expectoration is easier. Pulse 120, natural; B. regular.

Cont. med. et capt. pil. digital. gr. v. mane et vesp.

8th.—Has been asleep since five o'clock this morning, lying on a mattress. Pulse 100.

Cont. pil. digital. linct. opiat. et haust. anod.

9th.—Cough still very severe. Expectoration difficult, purulent, and not copious. Right foot is affected with erysipelatous inflammation, causing great pain. Some return of oedema. Extremely weak, and got no sleep last night, although she lay in bed. Pulse 100, rather weak; B. regular; less thirst.

Cont. pil. digit. linctus, et haust. anodyn. et appl. solut. acetat. plumbi pedi.

10th.—The inflammation of the foot is rather diminished by the use of the saturnine lotion.

There is some ecchymosis around one of the punctures, which is again beginning to discharge lymph; but the oedema of the right leg is again very considerable, and extends above the knee. There is some inflammation on the left foot; and the oedema has got as high as the calf of the leg. Since the inflammation of her leg came on, she has had great alleviation of her pectoral complaints. Pain of breast almost gone; and she can sleep in a horizontal position. Expectoration purulent, and not very copious. Pulse 112, and soft, small; B. regular; urine natural.

Intermit. haust.

Cont. pil. digitalis, linctus, et solut. acetat. plumbi ad fbis. et capt. elect. laxant. ʒj. ter indies.

11.—Is in bed to-day, lying with her head and shoulders elevated. Respiration very difficult; cough, and difficult expecto-

ration. Inflammation on her feet is rather less, but the oedema is increasing. Pulse 100, and full.

Rept. haust. anodyn. atque alia med. ut heri.

12th.—Had no sleep last night, as the cough attacks her whenever she lies down. Expectoration very copious, and she complains of a burning sensation under the sternum. Pulse 100, soft, not full, regular; heat natural. Feet much distended, with some vesications, and very painful. Legs again swelled.

App. vesicat. sterno.

Let her feet be seen by the surgeon.

13th.—Died last night.

Sectio Cadaveris.—On laying open the thorax, a considerable quantity of fluid was found effused into the cavities of the pleura, on both sides.

The lungs on both sides seemed quite healthy, and of their natural colour; but, on endeavouring to raise them up, they were found to adhere firmly to the pericardium, through its whole extent; to the diaphragm; and laterally to the pleura costalis, by membranous bands; and the lobes were firmly attached to each other, so that they could not be separated without some difficulty.

The pericardium was found adhering so firmly all round the heart, that it was with difficulty raised from it. It was very much thickened, and evidently consisted of three laminae; the middle one being opaque, white, and dense; the outer very unequal in thickness; and the inner very vascular, red, and pulpy.

The heart itself was a good deal larger than natural, and was also thickly covered with coagulable lymph, which, owing to its being torn asunder from the pericardium, appeared very irregular on its surface. Under this lymph, about two-thirds of the thickness of the heart had been changed into a substance somewhat resembling in its appearance condensed fat; and was found in fact to contain fat, as it swam in water, melted, and stained paper with a greasy stain: the remaining third had almost lost its muscular appearance.

The columnae carnae in both of the ventricles were larger than natural. Ossification had just commenced in the semilunar valves, at the mouth of the aorta; but the mitral valve was thickly beset with osseous matter.

This woman was the wife of a marine on board of one of the ships then lying in Leith Roads, and was seized, when living with her husband, with rigors and fever, pain of breast and cough, and by rheumatic pains and swellings of all her joints.

She was detained on board ten days after the attack, by the tempestuous state of the weather. In the waiting-room, she attracted our attention chiefly by the hard, though cedematous swelling of her legs; but, on examination, more serious complaints appeared. She had been attacked at first with symptoms of pectoral inflammation, succeeded next day by rheumatic affections of the joints. When admitted, nothing of the latter remained except the swelling of the lower extremities, but the pectoral symptoms were still alarming. I considered it as a case of pleuritis; and, from the seat of pain, both in the sternum and between the scapula, as a case of *pleuritis mediastini*. Besides, as she could not lie in the horizontal position, I conjectured that the inflammation was chiefly anterior.

For these complaints, she was repeatedly bled, blistered, and purged; and, on the 17th of the month, the pain is reported to be entirely gone. But, on the evening of the 19th, she relapsed. The pain was again relieved by bleeding; but, from this date, until she was exhausted, and almost moribund, she never could lie down in bed. Indeed, nothing could be more distressing than to witness her fruitless endeavours to find out a position in which she might have some rest. My supposition at the time was, that the inflammation was over, and that effusion had taken place, not into the cavities of the thorax, but into the mediastinum, or at least that it was confined by adhesion, or otherwise, to the anterior part of the chest. I confess that pericarditis never occurred to me, as her pulse was generally full and soft, and throughout had never been unequal, except on the 29th and 31st, after the use of digitalis, nor had she ever had palpitation or syncope.

Pericarditis is indeed said to be a very obscure disease. And yet, except for my having at first taken up the erroneous notion that it was pleuritis, it was sufficiently obvious in the present instance. We had fever characterizing active inflammation, and the seat of the pain sufficiently indicated the place. Now, the only organs which could be affected there were the pleura, mediastinum, or pericardium. The cough and expectoration, and the absence of symptoms usually enumerated as characteristic of carditis, misled me in my judgment. Rickman had not the *pulsus inequalis, palpitatio et syncope*, of Cullen; nor the constant vomiting of Darwin; nor the palpitation, faintings, quick and unequal pulse of Sauvages; nor the very intense thirst of Bursarius; nor the hydrophobia of Daniel; nor the delirium of Davis.*

And yet the intensity of pain, or rather anguish, in the region

of the heart, combined with the comparatively natural state of respiration during the inflammatory stage, might have directed me to the heart. Add to this the absolute inability to lie down, the extreme jactitation, and, when it was discovered, the total want of resonance from the percussion of the sternum. Even this symptom did not deceive me, for I had previously supposed a purulent collection to have been formed under the sternum, which was the reason of my making the trial; and its value, as a diagnostic symptom, is, I think, very apparent from this case.

Our error in regard to the nature of this disease was not, however, of very great importance in this instance, as the treatment would not have been very much altered; nor probably could any treatment have been of use after she came under our care.

The symptoms in this case, which seemed to depend chiefly upon the inflammation of the pericardium, were,

1. The pain or anguish under the sternum.
2. The great jactitation and want of sleep from the commencement of the attack.
3. The total inability to lie down, and the comparative ease which the patient experienced by leaning forward.
4. The febrile state of the pulse, which could, however, be only characterized as full and soft.

The cough and expectoration I would ascribe to the inflammation of the pleura, and the effusion of water into the chest. All these contributed to the great dyspnoea which came on after the disease had subsisted for some time.

The dissection of this case presented a most striking instance of universally and violently inflamed pericardium; and I think I am warranted in considering the inflammation of the pleura in the vicinity, causing agglutination of the neighbouring lobes of the lungs, and effusion into the cavities of the chest, as an effect of the original pericarditis, in consequence of the inflammation spreading by contiguity. The pericardium, in this woman, adhered universally to the heart by a layer of coagulable lymph, without any effusion of serum. Cases of this kind are not always necessarily fatal, for, whenever we find the pericardium adhering to the heart after death, we may infer, that it is the consequence of pericarditis at some former period. This is not a very rare occurrence. I have myself seen it in a man who died apparently of asthma, and Corvisart has a chapter on the subject.* But the most remarkable circumstance in this woman's heart was its partial conversion into fatty matter. Of that I was assured, not only by its appearance, but by chemical experiments, which were perfectly conclusive as to the fact.

* An Inquiry into the Symptoms and Treatment of Carditis. By John Ford Davis, M.D. pp. 190. 12mo. Bath, 1808.

* P. 28.

Corvisart * himself never saw an example of this conversion, but says, that it has been seen by some modern anatomists, although their observations have not been published. He also confesses his ignorance of the manner in which such a transformation takes place. In the present instance, we find it accompanying pericarditis, but it does not follow that it was an effect of the inflammation. It may have existed before the commencement of the fatal disease. I do not know that any connection has ever been traced between the conversion into fat of other muscles, and preceding inflammation.

The commencing ossification of the valves, in so young a woman, is, however, an argument in favour of some state of inflammation having existed in the heart on a former occasion; and the membranous bands, causing lateral adhesions of the lungs, were evidently the effect of pectoral inflammation some time before the fatal attack.

CASE III.

JOHN MACLEOD, æt. 17, sailor.

January 25th.—Is affected with pain in the *right* side, on deep inspiration or on cough; which last is pretty severe, and attended by a very bloody sputum. The chest feels hot but not oppressed. Has headach, nausea, retching, and an occasional vomiting of a slimy black matter. Thirst; tongue whitish and moist at the edges. No appetite; B. regular; no sleep; pulse 92, small and soft. Complaints of three days duration. Sputum became bloody yesterday morning. Was immediately bled to considerable extent; and a cathartic was administered.

Appl. vesic. lateri dolenti. Hab. aq. menth. pip. ʒi. pro re nata, nausea urgente; et haust. anod. h. s.

R Mist. mucil. ʒvss.

Acet. scill. ʒi.

Tinct. opii amm. ʒij. M. Sumat. ʒss. tussi urgente.

26th.—Blister rose well; breast considerably relieved; hæmoptysis diminished; pulse about 100; two stools.

Hab. haust. sal. ellerv. 4ta. qq. hor.

Omitt. aq. menth. Cont. alia ut antea.

27th.—Considerable pain on coughing. Pulse 120; slight headach; face flushed; expectoration copious, and at present easy; several stools; had some sleep.

R Aq. font. ʒiiij.

Aq. cass. ʒi.

Tinct. digit. gtt. xl. M. Sumat. ʒi. sexta qq. hora.

Cont. med. ut a. Hab. decoct. furfur ad. lib.

* P. 166.

28th.—Frequent loose stools; cough has continued severe; very little blood in the sputum; pain pretty nearly general over the left and lower parts of the breast, but not nearly so severe at present; retching at times; pulse 112, softer; face not flushed; no headach.

Cont. med. ut antea.

Appl. vesic. parti dolenti.

29th.—Side much easier; some sleep in the former part of the night; delirium towards morning; pulse about 120, rather feeble; intermitting; two stools.

Omitt. mist. cum. digit. et haust. salin. Cont. alia.

Hab. emuls. camph. ʒss. 3tia qq. hor.

30th.—A good night; cough has not been so frequent; less dyspnœa; feels no pain; thirst; pulse quick and intermittent; belly regular.

Cont. omnia ut heri.

31st.—Cough at times has been distressing; considerable dyspnœa, but no pain; only one stool; pulse quick, feeble and irregular.

Hab. seri. vinos. ʒx.

Cont. alia ut a.

February 1st.—Had a better night; still much dyspnœa, and pulse as yesterday; no stool.

Cont. seri. vinos. ad ʒxiv. et alia u. a.

Hab. pil. rhæi comp. iij.

2d.—Had a pretty good night; cough has not been very frequent. Pulse 120, feeble and irregular; continues very weak; one stool.

Cont. seri. vinos. ad ʒxvi. Alia ut a.

3d.—Cough has been very frequent; dyspnœa continues; expectoration difficult; pulse 106; one natural stool; has taken the whey, but little of any other thing.

Cont. seri. vinos. Omitt. alia.

R Aq. cass. ʒiv.

Tinct. digit. gtt. xl. M. Sumat. ʒi. bis indies.

4th.—Is very feeble; has taken very little food; cough very distressing, and respiration laborious; two stools.

Omitt. mist. cum digital. Cont. alia.

R Solut. ammoniac. ʒvi.

Syrupi ʒss.

Aq. menth. ʒij.

Acet. scill. ʒij. M. Sumat. ʒi. 4ta. qq. hor.

Hab. aq. cardiac. ʒvi.

Hab. haust. cum tinct. hyoscyam. gtt. xl.

5th.—Has had a good deal of sleep; is asleep at present; breathing easier; two stools; pulse 106.

Cont. med.

6th.—Has been much disposed to sleep since yesterday; pulse about 116, firmer and more regular; one stool; thirst; and complains much of weakness.

Cont. med.

7th.—Has been affected with pain of breast since last night; cough troublesome; sputum tinged with blood; pulse about 80, but with frequent intermissions; several stools.

Rep. haust. Omit. alia.

Appl. vesic. quamprimum lateri.

Hab. mist. acid. sulph. ʒj. 3tia vel 4ta qd. hor.

Utatur linctu comm. more solito.

8th.—Hæmoptysis has been constant; cough troublesome; pulse very feeble; has had little or no sleep.

Hab. seri vinos. ʒx.

Cont. alia ut a.

9th.—Died.

On opening the thorax next day, few or no adhesions were observable; nor was there any considerable effusion of serum into the sacs of the pleura. A little to the right of the sternum there extended from the lower part of the left side a dirty chocolate-coloured bag, which, on being opened, proved to be the pericardium adhering to the lungs, thickened and much distended; also containing two pounds six ounces of perfectly formed pus.

The inner side of the pericardium, and that part which is reflected over the heart, were covered with a thick coating of a substance resembling condensed curds; and in some parts to a greater depth than others.

The substance of the heart was very much paler than usual. It had no other peculiarity.

The dissection of this case shewed that it was an example of pericarditis, nearly as free from complication as it can occur; and, on this account, it becomes the more valuable, as Corvisart * informs us that he is in possession of no proper case of acute pericarditis without complication. But here, while we have a very high degree of inflammation of the pericardium, both where it invests the heart itself, as its outer membrane, and where it is reflected as a loose bag around it, there was almost no affection of the neighbouring parts.

The leading symptoms were at first pain in the right side; certainly a very anomalous symptom, but it must be observed, that the pericardium extended to the right of the sternum; cough,

with bloody expectoration; headach; nausea; retching; and occasional vomiting; pulse 92, small and soft. In the progress of the disease, the pain became general over the left and lower parts of the heart; the retching continued; the pulse became quick, feeble, and intermitting; and delirium came on. The bloody expectoration was for a short time suspended, and then increased so as to amount to hæmoptysis. At first he complained of want of sleep, afterwards he slept or dozed a great deal. His cough and dyspnoea fluctuated, but increased towards the close of his life, which took place on the fifteenth day from the attack.

These cases seem to me to form a valuable addition to our knowledge of this interesting disease. In Baxter we have an example of chronic and occult carditis, without any symptom occurring to indicate the affection of the heart; while after death the effusion of coagulable lymph, both into its cavities and into the pericardium, and the change its substance had undergone, left no doubt as to this important organ having been generally affected with inflammation. In Rickman and Macleod, we have cases of acute or subacute pericarditis; the former, accompanied by effusion of coagulable lymph, would have produced, if the patient had survived, a general adhesion of the pericardium, and the latter terminating in an enormous, and necessarily fatal, effusion of pus. The symptoms during life were no less different than the appearances after death; but any attempt to connect the one with the other would be premature.

TOPOGRAPHICAL

REMARKS,

SHORTLY ILLUSTRATING

THE NATURE AND ORIGIN

OF THE

TROPICAL ENDEMIC, OR YELLOW-FEVER,

AND ITS DEPENDENCE ON STRICTLY LOCAL CAUSES, ARISING FROM
PECULIARITY OF CLIMATE AND SITUATION.

By D. J. H. DICKSON, M. D. F. L. S.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH,
AND LATE PHYSICIAN TO THE FLEET IN THE WEST INDIES, &c.

Quod sol atque imbres dederant, quod terra crearat
Sponte sua. LECRET. Lib. v.

(From the Edinburgh Medical and Surgical Journal, No. 49.)

EDINBURGH :

PRINTED BY GEORGE RAMSAY AND COMPANY.

1816.

TOPOGRAPHICAL REMARKS

ON THE CAUSES OF THE

TROPICAL ENDEMIC, OR YELLOW-FEVER.

Is the 47th Number of the Edinburgh Medical and Surgical Journal, Mr Sheppard has very ably explained some of those sources from which fallacious deductions have been formed on the nature of yellow-fever. The chief design of that paper seems to be, to arrest the attention to the difference between relative and absolute immunity; and, as I have reason to believe that the writer could have instanced a second attack of yellow-fever in others, as well as in his own person, it appears to me that he might have extended his observations with increasing advantage to his conclusions, which closely accord with the results of my own experience.

My present object is to make some aetiological remarks applicable to the subject, with the view of accounting for, rather than with the hope of reconciling, some of the conflicting opinions which have been entertained; but, as I cannot now go at length into the proofs of those I have to offer, I must trust to be allowed credit on this occasion for having a superabundance of evidence in their favour in my possession.

Marsh miasma is very generally, and justly, considered as the grand source of the fevers of warm climates; but, though very frequently so, it is not necessarily always, or the only source of that in question. While its operation has been too exclusively insisted upon by some authors; it has only been admitted under great limitations by others. The term, indeed, is not free from objection, since it has caused the latter to receive it in a sense far too strict and literal; and to question the existence of such exhalations, except in the vicinity of a complete swamp, or marsh.

I am at present to consider the miasmata of decomposition, with reference to their effect, and not to their intimate nature, in whatever situation they may occur; and, in this general sense, it appears to me, that, in a temperature so uniformly high as that of the West Indies, and where decomposition is so rapidly promoted by the agency of heat and moisture, there can be very few places where the occasional production of noxious effluvia may not be calculated upon on shore; and sometimes, also, on ship-board. Of fever arising in particular ships, from impure exhalations emanating from a foul state of the hold, continuing notwithstanding every attention to preventive measures, and ceasing only upon the hold being cleared, I have seen many well-marked instances. As the most unseasoned part of a ship's company, and especially strangers, will be most liable to suffer; in this case, it is easy to perceive that such attacks might sometimes be construed in favour of infectious fever; but that they proceeded solely from the source above mentioned, appears to me clearly demonstrated by the previous inefficacy of ventilation and cleanliness,—by the impunity with which promiscuous intercourse, elsewhere, is maintained with other ships,—by the extinction of the disease upon the hold being cleared, and not till then,—and by its not being propagated or communicated by the sick, when removed from its original source. I shall adduce one example, where, from the peculiar construction of the vessel, the source of the febrile exhalations could be more clearly ascertained than when they arise from a foul state of the ballast in general. In April 1807, a fever prevailed in the Dart, lying guard-ship at Barbadoes, which, at first, was attributed to land influence, and irregularities committed by the men employed on shore; but as it continued, from time to time, to attack new comers especially, after sleeping two or three nights on board, an internal cause became suspected. The ship was divided into compartments below, so as to allow of the water being carried in large tanks or cisterns, instead of the usual manner; and these, having been disused in harbour,

their bottoms were found to be covered with an offensive deposition of slimy mud. On the 17th of May, cases of fever still supervening, I find by my notes that this evil had been detected, and remedied; and communications between the divisions had been opened, so as to allow a free circulation of air below; and on the 24th I find it stated, "for the last week no fresh attacks of fever had occurred on board the Dart." The fatal cases terminated at the hospital with the usual symptoms of yellow-fever. As such fevers may occur at various periods after exposure, consequently, after the cause has been removed, the early cessation of the disease, in the present instance, is more material, where the ship was constantly receiving new men; because their not being affected subsequently, shewed that the cause which had existed previously, existed no longer.

Impure effluvia will be most apt to be generated in a new ship, particularly if built of green wood; or where the shingle ballast has not been restowed for a length of time, or has not been, originally, carefully selected. If such exhalations, (between which and animal effluvia, confined or produced by the human body under disease, a wide distinction obtains, though their effects have been often confounded,) be admitted to occur, occasionally, in a man of war, where cleanliness is proverbial, it is easy to perceive, that, by the agency of heat and moisture, they may, under particular circumstances, in a transport or merchant-ship, become so abundant and concentrated, that the hold, without the expression being very figurative, might be denominated a ship marsh.

But the principal source of obscurity, and of contradictory opinions on the yellow-fever, appears to me to arise from sufficient attention not having been paid to those states of the system upon which the frequency and fatality of the disease so much depend, and which may be designated by the terms susceptibility and disposition. By the first I mean simply the natural liability of the unseasoned European constitution to be affected with that fever in the torrid zone, upon exciting causes sufficiently powerful being applied; by the latter, an acquired, or higher degree of susceptibility, by means of which causes less powerful, and otherwise inefficient, become adequate to the production of yellow-fever. The propriety of distinguishing those states, though it may be said they differ only in degree, I hope to make apparent; but I do not mean to say that the terms are the best that could have been selected; it is sufficient, in this case, that they are understood. I have substituted, on reflection, the word disposition for predisposition, (though I should have preferred the more familiar term,) because it might be con-

tended, that the latter ought to imply a previous, rather than an acquired tendency.

The degree of such disposition will fluctuate considerably during the earlier period of an European's residence in the West Indies, according to his age, the season of the year, and as various stimuli have a greater or less influence upon the system; or, in other words, in proportion as it has been freely and suddenly, or cautiously and gradually exposed to their operation. In such a climate, where the youthful, sanguine temperament is, at any rate, goaded by the stimulus of unnatural heat, into a degree of febricular excitement, it is not extraordinary that, from free living, intemperance, or undue exposure or exertion, there should be much danger of this artificial excitation terminating in real fever, until the system becomes gradually injured, and less sensible of such influence by the effect of habit, or assimilated by the supervention of, what have been called, seasoning, or milder attacks of sickness.

The dangerous increase of this susceptibility may be often observed in ships recently arrived from Europe, continuing healthy, while refitting in harbour, for ten days, a fortnight, or longer, according to the season, and becoming very sickly afterwards. Its variation, and decline, are sufficiently exemplified in the disparity of health enjoyed by the crews of ships under repair, at the same time, in the same harbour, and exposed to precisely similar exciting causes, but differing in the length of their residence in a tropical climate, or the degree of exposure to which they had been previously subjected. The variation in these respects will cause such dissimilar results, that a fatal fever will become general, in a short time, in one ship; in another, the sickness will be partial, and less dangerous; while a third will be altogether exempt, or experience only mild and occasional attacks. This gradation will be sufficiently obvious, although its uniformity may be somewhat affected by peculiarities in season, modes of discipline, and various minuter causes, while the chief circumstances are apparently the same.

The danger of a West India climate, or, in other words, the tendency to yellow-fever, I conceive, then, to be in the compound ratio of the disposition, and the force of the exciting cause; a weaker exciting cause being sufficient when the system is strongly disposed, and *vice versa*; for, fortunately these often obtain in an inverse proportion; and the constitution has been more or less habituated, previously to any considerable exposure. How greatly the preservation of health must depend upon the inurement being gradual, is too obvious to require any comment.

Marshy effluvia, or similar impure emanations in other situations, I have already stated to be, in my opinion, a great source of yellow-fever, either as a predisposing or exciting cause; but, if the above premises be correct, it farther follows, that the causes of yellow-fever may be the same as the remote causes of fever in general; that they may act in various degrees of intensity, or combination; that the weaker require the aid of disposition, to become efficient; but when the system is highly excited, or prepared to fall into fever, that any additional agency, though of itself inoperative and insignificant, may become the occasional cause; and, consequently, that this disease may be called into action, in some cases, by such as are feeble, dissimilar, and so obscure as to elude investigation.

In speaking of causation, then, I do not mean to express individual agency, but any concurrence of circumstances which constitutes a cause; for I imagine we can seldom, in pathological physics at least, calculate upon either singleness of cause, or simplicity of effect. If the preceding principles are well-founded, it will not be necessary here to enter into any length of illustration to shew, that sporadic cases may arise, in this way, at all seasons of the year, from undue exposure, intemperance, fatigue, or other irregularities, as well as from circumstances so minute, as often to escape detection; that a number of men, such as a regiment, or a ship's company, or any part of them, from similarity of temperament, employment, or situation, will often suffer simultaneously, particularly during the hurricane season, and all the latter half of the year; and that in particular years, from previous unseasonable weather, or an epidemic constitution of the atmosphere, and in all years, during the sickly months, when a considerable number of unassimilated men have been recently introduced into the West Indies, the yellow-fever may be expected to become general among them, and to be attended with great mortality, particularly after much exposure and exertion, often inseparable from active warfare. As the constitution will suffer less excitement from the heat, the coming from another part of the torrid zone, or a southern climate, will confer a certain degree of protection, but this will be only sufficient to guard against the weaker, or ordinary causes of yellow-fever. In my own case, I considered the danger diminished by having previously served four years in the Mediterranean. The gradation which I have above attempted to explain, is well illustrated by the following unstudied, but impressive extract of a letter, now lying before me: "While we were all ill, and dying in the Alligator, in English Harbour, shortly after our arrival in the West Indies, the Emerald, which had

been two or three years in the climate, remained near us healthy, though under precisely the same circumstances of duty and exposure. The Emerald was succeeded in her situation by the Carysfort, fresh from Europe, which ship, in a few weeks, buried almost all hands."

From regarding the habits, as well as the aetiology of the tropical endemic, the laws which govern its appearance seem to me to be entirely different from those of the plague and typhus fever, with which it has been sometimes compared. To those disorders, strangers, and the natives of the countries in which they prevail, are, *ceteris paribus*, obnoxious in the same degree; and all such as are equally exposed, may be said to be equally endangered. But it is totally different in the legitimate yellow-fever, in the West Indies. It is the disease of manhood, of the excited, unassimilated, full habit. It more rarely attacks an earlier or later period of life; and seldom the female, or only in proportion, as from intemperance or other causes, they approach to the habit of the male sex; while old residents, whether native or assimilated, and people of colour, may be said to be almost entirely exempted,—for they are so, with as rare exceptions as we witness in the application of any other general rule.

But whatever may be the peculiar coincidence of circumstances, or modification of cause, most fertile in the generation of yellow-fever, an uniformly high temperature is the *sine qua non*. This is literally and eminently entitled to be so denominated, because it indispensably precedes the effect. In the Caribbean Archipelago, the temperature is not only high, but equally and durably so; and from its little variation in this respect, I consider the yellow-fever as the legitimate product of the climate; for in the more southern colonies on the Continent, where, from the vicinity of woods, mountains, &c. the temperature, though equally high, is not uniformly so, and where the winds are more variable, and the nights cooler, the disease is much less prevalent, and oftener assumes a remittent type.

To the importance which I attach to an equally high atmospheric temperature, it will be objected by some persons, that, in countries which should be still more favourable to this disease, because the heat is more intense, and also in places lying in the same latitude, the yellow-fever is not known. But, in the first place, it becomes incumbent on such persons to shew, why a temperature above a certain height ought to be more favourable; for, on the contrary, I should expect that great heat would dissipate and destroy, if not prevent the formation of the miasmata of decomposition; and, secondly, it by no means fol-

lows that the climate of two places is alike, because they lie at the same distance from the equator.

M. Humboldt remarks, that the salubrity of tropical climates depends more on the dryness of the air, than on any of its other sensible qualities. The burning province of Cumana, the coast of Cora, and the plains of Caracas, prove, that excessive heat, alone, is not unfavourable to human life.

All historians concur in admitting the different laws by which the corresponding degrees of the two hemispheres are subject, with respect to the distribution of heat and cold; for the exceptions, from local causes, stated by Clavigero, cannot affect the general principles. The difference in the same latitude has been estimated at 12°, or more degrees; but according to relative situation, it must be often much greater.

The dissimilarity of climate, between the eastern and western sides of the New Continent, from this cause, and from the greater variability of the wind, is also noticed by various writers, and particularly in the voyages of Ulloa, Anson, and others.

At Lima, in a southern latitude, nearly corresponding with the northern of Cartagena, the heat is far more moderate; and the observations made by the academicians at Quito shew, that, although close to the line, the thermometer does not rise, there, so high in summer as it does in Paris; nor does it fall so low as in the temperate climates of Europe in winter, so uniform are the seasons. Rees, Pinkerton, Walton, &c.

This disparity of the Old and New Continent, and of places lying in the same parallel, is sufficiently accounted for upon philosophical principles, and depends on the elevation or depression, extent of country, duration of the winds, nature and cultivation of the soil, proximity and height of mountains, and many circumstances which modify the temperature of a climate, besides its distance from the equator, and the consequent more vertical, or more oblique incidence of the solar rays.

Dr Robertson observes, "while the negro on the coast of Africa is scorched with unrelenting heat, the inhabitant of Peru breathes an air equally mild and temperate, and is perpetually shaded under a canopy of grey clouds, which intercepts the ~~heat~~ beams of the sun, without obstructing his friendly influence. Along the eastern coast of America, the climate, though more similar to that of the torrid zone, in other parts of the earth, is nevertheless considerably milder, than in these countries of Asia and Africa, which lie in the same latitude."

He afterwards shews, that the trade wind is still farther cooled in its passage from the Atlantic to the Pacific shore of the New Continent. "As this wind advances across America, it

meets with immense plains covered with impenetrable forests, or occupied by large rivers, marshes, and stagnating waters, where it can recover no considerable degree of heat; at length it arrives at the Andes, which run from north to south through the whole Continent. In passing over their elevated and frozen summits, it is so thoroughly cooled, that the greater part of the countries beyond them hardly feel the ardour to which they seem exposed by their situation. In the other provinces of America, from Tierra Firme, westward to the Mexican empire, the heat of the climate is tempered in some places by the elevation of the land above the sea, in others by the extraordinary humidity, and also by the enormous mountains scattered over this tract.*—History of America, Vol. II. p. 9. *et seq.* 9th edit. Hence the great salubrity of the table-land, in the centre of New Spain, compared with the low marshy lands upon the coast.

On the opposite sides of Mexico, where the distance is so much less than across the other parts of the Continent, the influence upon disease is yet considerable. Thus we learn from M. Humboldt, that although bilious fevers and cholera morbus prevail, the black vomit has never yet been observed on the west coast of New Spain, while Vera Cruz is considered as the chief seat of that terrible distemper.

The disastrous results of the expedition to Carthagena, Porto Bello, Vera Cruz, &c. which have been the theme of the historian, and of the poet, have, indeed, fatally proved the peculiar noxiousness of the extremely hot and marshy climate of the eastern shore.*

Even at the short distance of 60 miles, between Panama and Porto Bello, the difference is sufficiently perceptible, although,

* To one who has been an actor in such scenes, I do not know, in the whole circle of poetry, a passage which more irresistibly awakens the memory of former painful feelings, than the following affecting picture, in Thomson's Summer, of the pestilence that destroyed the English fleet at Carthagena.

—You, gallant Vernon, saw
The miserable scene; you pitying saw
To infant weakness sunk the warrior's arms;
Saw the deep racking pang, the ghastly form;
The lip pale quivering, and the beamless eye
No more with ardour bright;—you heard the groans
Of agonizing ships from shore to shore;
Heard nightly plunged, amid the sullen waves
The frequent curse.—L. 1050.

from improvements, it may be less so of late years. Ulloa remarks, that the garrison detachments sent from the former to the latter, "though coming from a place so near, are affected to such a degree, that, in less than a month, they are so attenuated, as to be unable to do any duty, till custom again restores them to their strength;" and that "the inhabitants of Panama are not so meagre and pale as those who live at Carthagena, and Porto Bello."—Translation by Adams, Vol. I. p. 98, and 123. 4th edit.

I am the more anxious to advert to these points, because they assist in explaining the influence of locality and susceptibility in the production of yellow-fever.

For, besides the lower and more variable temperature and winds on the extensive coast washed by the Pacific Ocean, the introduction of Europeans is more gradual and limited, and their constitutions may be supposed to have lost that freshness (if I may use the expression) so favourable to this disease, by the length of the voyage and climates through which they must pass; or by the seasoning attacks, to which they are liable before they reach their destination, if they land at an eastern port.

There are two powerful reasons, then, why Europeans, on the other side, are so much less subject to yellow-fever: They have not only lost a considerable share of their original susceptibility by pre-assimilation, but their equatorial parallelism is so far counteracted by the difference of climate, that they may be considered, though *actually* living in the same, as *virtually* living in a more northern latitude.

The converse of this proposition appears to me well adapted to explain the occasional appearance of the fever which has excited so much controversy in America and in the south of Europe. During the unusual and long-continued height of the thermometer, by which these epidemics have been preceded, the inhabitants are virtually placed in a new or tropical climate; and the same general effect follows which would result from the sudden transition of a body of men to the West Indies, with a considerable share of northern susceptibility. In both cases the constitution, being unassimilated to the change, will be liable to be affected by the unusually heated and peculiar state of the atmosphere, whether its influence may be admitted to consist in producing the dispositional tendency of which I have spoken, or the development of those miasmatic products most favourable to this form of fever, or in both.

Upon these modifications of fever I do not propose to offer any observations at present; but I am inclined to believe, that the discrepancy of opinion thereon is much to be attributed to

partial and incomplete views of disease in limited and detached situations; and that the more we see of fevers in the various quarters of the world, the more we shall be induced to refer to general but determinate principles their phenomena, as well as their mode of action or effects upon the body, though the latter, of course, will be susceptible of great diversity, according to the nature or concentration of cause, individuality of constitution and structure, and relative importance of the organs particularly affected.

In his celebrated work on the political state of New Spain, to which I have already alluded, M. de Humboldt seems to have justly appreciated the influence of uniformity of temperature, situation, and individual susceptibility, in the production of yellow-fever. I shall quote from my notes, as I have not the book before me. He is of opinion that the yellow-fever has occurred sporadically whenever persons born in a cold climate have been exposed in the torrid zone to air loaded with miasmata; and he very properly cautions us against confounding the period when a disease was first described, with the date of its first appearance.

The yellow-fever, he informs us, is still unknown at Acapulco, though, from the uniformity of the heat, he is apprehensive that, if ever developed, it will continue the whole year, as in other situations where the temperature varies only two or three degrees during the year; and he most judiciously remarks, that, if this port, instead of being frequented by ships from Manila, Guayaquil, and other places of the torrid zone, received ships from Chili or the north-west coast of America, if it were visited at the same time by a great number of Europeans, or of Highland Mexicans, the bilious would probably soon degenerate into yellow-fever, and the germ of this last disease would develop itself in a still more fatal manner than at Vera Cruz. M. Humboldt afterwards gives a still more satisfactory reason why it is not brought from Chili, viz. that it does not exist there;—which I imagine to be not a little applicable to the Bulama, and some other instances of imputed importation, like that from Siam, characterized by Dr Lind as “truly chimerical.” For, after stating that the yellow-fever has not appeared upon the coast of the Pacific Ocean during the last fifty years, except at Panama, and that there, as at Calao, the commencement of a great epidemic is often marked by the arrival of some ships from Chili, he adds, not that they imported the disease from a country where it never existed, but because the inhabitants, coming from the healthiest country in the world, experience the same fatal effects of a sultry air, load-

ed with putrid emanations, as the inhabitants of the north. See his Second Volume, and the 29th Number of the Edinburgh Medical and Surgical Journal.

The same reasoning, I may observe, particularly applies to the error which has been so often committed, of mistaking epidemic for contagious diseases, and supposing them to be imported by new comers, because, from unassimilation to the new atmosphere, they are generally the first and greatest sufferers from local causes. Thus, Ulloa states, though he does not seem to believe it, that, when the black vomit first appeared at Guayaquil in 1740, the galleons of the South Sea having touched there, it was the general opinion that they had brought that distemper, and that great numbers died on board the ships, together with many foreigners, but very few of the natives.—Adams, Vol. I. p. 161. I need hardly remark how infinitely more probable it is, that the poor sailors, coming from a pure air, suffered from the unhealthy marsh in the vicinity, which Estela describes as infecting the city, at particular seasons, with pestilential vapours; but which to the natives, from habituation, were comparatively innocuous.

As for the reasons already given, and from personal observation of the tropical endemic in almost every variety of situation,—proving it to arise in hot, low, moist, close places, wherever new men are exposed to miasmata, intemperance, or fatigue.—I must consider the yellow-fever, not as an imported or contagious disease, but as a strictly local and indigenous evil, “quod solatque imbres dederant, quod terra crenat sponte sua,” to use the words of Lucretius in a different application. I shall only remark here, that, if it possessed any contagious property, it is to me altogether unaccountable, that conviction thereof should not have been evinced, almost with the force of mathematical demonstration, long before the present day, considering the continual and unrestricted intercourse generally carried on between ships, as well as between the opposite sides of the Isthmus of Darien. But, on the contrary, examples of individual disease, or of a limited number only, are constantly occurring in the same ship, again and again, without extending farther; and it becomes epidemic, as I have endeavoured to explain, only when a generally operating cause produces a general effect. Hence it is legitimately endemic in the West Indies, and becomes often epidemic there at particular seasons, and occasionally, in other countries, after exposure to the influence of tropical heat. If the fever of Gibraltar and other parts of Spain be the same disease, and if it possess any such property, which I consider as still remaining to be proved, I must therefore con-

tend that it is not a native, but an adventitious character, and that, like other diseases attended with febrile action in temperate climates, it is susceptible of being modified by the occasional coincidence of peculiar circumstances, such modification placing it in a class which, in my official report on the subject to the Naval Medical Board, (perhaps inaccurately, but for the sake of distinction merely,) I called *Diffusible Disorders*, the power of dissemination in such not being, as in other communicable diseases, native and inherent, but contingent and acquired.

In accounting for the tropical endemic becoming epidemic at particular seasons, the eminent traveller before referred to, further shews the intimate connection on the coast of Mexico, between the progress of the disease, and the temperature and state of the seasons; and, accordingly, that, at Vera Cruz, the *zonitis prieto* does not commence generally, till the medium heat is 75° Fahr. It is, therefore, seldom seen in December, January, and February, unless it has been very violent in the summer, when it continues more or less through the winter; but, as he observes, although it is hotter in May, its ravages are more dreadful in September and October, because a certain duration seems necessary to develope its full force; which must, moreover, be augmented after the rains have ceased, which last from June till September, as well as be influenced by the direction of the winds. The same increase of disease, I may remark, is observed in the islands, during the hurricane months; and this is also in proportion as the previous weather has been unseasonable; but the mettal heat at which the disease begins to be prevalent, may be calculated at, at least, from 5° to 10° higher; from which it may be deduced, that, in proportion as the air is more loaded with miasmata, as on the Atlantic shores of New Spain, the disease may become active at a lower temperature, than when these effluvia are less abundant and concentrated; and it may further account for its appearance beyond the tropics, during the summer heat.

In proof of the effect of seasons, I have now before me a letter from Dr Macarthur, who ably conducted the Naval Hospital at Barbadoes for several years, corresponding with his report to the Medical Board in September 1809, in which he says: "I remarked, while at Barbadoes, that the fever was more frequent, and more violent when the rains were partial, than when continued and general. The heat of the sun produced the decomposition of animal and vegetable substances more rapidly when the earth was slightly moistened by rain, than when perfectly drenched. In these years, when the rain

fell abundantly during the months of June, July, and August, the fever did not appear until September, October, and November. On the contrary, when June, July, and August, were comparatively dry months, the fever invaded us earlier. We know in Europe that the effluvia from marshes are more deleterious a week or two after the beginning of hot dry weather, than immediately after the rains are over; the first evaporation from the surface of the marsh being innocuous, compared with that which afterwards follows." Upon the same principle, as has been well explained by Dr Bancroft and others, it is not during excessively wet or dry seasons, but some time after the rains, or after partial showers, that marshy effluvia are most abundant and concentrated, as I saw dreadfully exemplified in the garrison epidemic at Mariegalante, in the autumn of 1808. At certain seasons, therefore, in hot countries, wherever there is vegetable and animal life and decay, even though no water be stagnating on the earth, the whole flat surface may be considered as a marsh; and, consequently, there can be very few situations, as I mentioned at the commencement, exempt from the occasional influence of such miasmata.

It is only by tracing its connection with the seasons, then, that we can rationally expect to unfold the laws of the tropical endemic, and such topographical hints as I have here offered, if followed up, I should hope would materially contribute to this end, although the peculiar and intimate combination of circumstances, as well as its sporadic occurrence, must often depend upon causes so minute as to elude all investigation.

The degree of exemption from the disease will be, generally, conditional, and contingent upon various circumstances; for though indemnity to a considerable extent may be purchased by a previous attack, or by mere length of residence, yet such protection is but relative, and, though a sufficient security against ordinary causes, is not proof against such as are of great intensity.

The *Circe* frigate, after having been several times at Antigua, and escaping with a limited number, or only individual instances of yellow-fever, by putting to sea before it became general, entered English Harbour on the 4th of January 1808, no man requiring medicine. In five days afterwards the fever appeared, and, from being engaged in the unwholesome duty of clearing the hold, and heaving down, between that period and the 2d of February, 146 men were sent to the hospital, of which number 22 died with black vomit, although it was then the healthiest season of the year, and the ship had been nearly two years and ten months in the West Indies.

Still, though the immunity was far from amounting to insusceptibility, the danger here was much lessened by partial assimilation; for it may be fairly inferred, that the mortality would have been much greater if the ship had been recently from England.

A great proportion of these men had suffered previous attacks of fever; and I think there can be as little doubt, that some of them, at least, would have terminated in the same way, if they had not been controlled.

If this fatal fever, incident to Europeans in the West Indies, be admitted to be only a higher grade of the fevers of the torrid zone, it may, perhaps, be inaccurate, in a strictly philosophical sense, to press the necessity of giving it a distinctive or more appropriate appellation than that of yellow-fever. The incorrectness of naming it from an incidental and unessential symptom has been sufficiently commented upon; but the great objection consists in this symptom, often causing it to be confounded with the common bilious, and other milder fevers; and hence do we read of many instances of the successful treatment of yellow-fever, by means which were never entitled to that credit. What name may be deemed the most appropriate, I do not take upon me to determine. The term *Causus* would, at first sight, appear to be sufficiently so, as the disease is so generally accompanied with great heat and vascular action; but, as it does not assume this ardent form, in some instances, the name might mislead, and tend to throw the young practitioner off his guard, when these symptoms were not present. The epithet *endemic*, may be considered too vague,—that of *Caribbean*, or even *tropical fever*, may be considered too local,—but, perhaps, the latter is the least objectionable (provided the milder fevers of the torrid zone were understood to be excluded), since this disease only occurs in tropical regions, or in places that have been subjected to tropical heat.

Be this as it may, I must contend that the yellow-fever (characterized by gastric irritability and inflammation, and ending in the black vomit) ought to be regarded, for all practical intents and purposes, as a distinct and peculiar disease; and a diagnosis, as far as it is possible, established, with a view both to a just prognosis and treatment. For, though success will be greatly influenced by locality and constitution, and though the symptoms of this malady do not always permit, nor can they, where they do authorize, be always arrested by the copious abstraction of blood; yet I feel justified in saying, that it is only from this remedy, employed while the fever is forming, or within a short time after it is formed, aided, of course, by purgatives, and by the

cold affusion, if indicated, that we can entertain any plausible expectation of arresting a disease where the morbid motions are of such inordinate power and rapidity. In making this remark, I more particularly allude to that which I have most frequently witnessed, the ardent continued form of this disease, where the deceitful pause, during the transition from one stage to the other, has been so often mistaken for a remission. To admit the effects of the morbid action upon the stomach, contiguous intestine, and brain, often in the course of a few hours, would appear to me equivalent to admitting that we could only rationally hope to counteract them by such powerful means, provided we put aside preconceived opinions and theory.

The ability with which men bear the loss of blood, I have already allowed very much to depend upon habit and locality; and its efficacy entirely on the early stage of the disease.

In situations peculiarly pestilential, or where, from concentration of cause, the animal energy is so far depressed, as early to incapacitate the functions for the performance of those duties by which life is supported,—or after sufficient time has elapsed to have allowed the establishment of fatal congestions,—I do not pretend that there is any hope of these being removed, but, on the contrary, death will be accelerated by the use of the lancet. All I mean to say is, that, during the first stage, at least in the shape in which I have most frequently seen the disease, and while the progress of inflammation in the most vital parts is rapidly proceeding, yet still remediable, I am acquainted with no other remedy which has either time or power to save them from disorganization.

Having had but too many opportunities of being convinced of the want of commensurate efficacy in those inert means by which the fevers of temperate climates are often conducted to a safe termination, I feel perfectly satisfied when I hear of great success in the treatment of this disease, either that results so fortunate have been the reward of a prompt and decisive plan of treatment at the very commencement, or that the disorder was of a far milder, and more remediable nature, than that which I have been accustomed to, under the name of yellow-fever. Would to God I could say, that the most prompt and decisive measures will be generally attended with success; but I may say, that this will almost entirely depend upon the earliness of their application; or upon the judgment to determine when the disease has so far advanced, that they are no longer applicable, and must be succeeded by an immediate, and entirely opposite mode of treatment.

The mediocrity of remedies often causes them to retain that

reputation which they have previously, and sometimes unjustly acquired; but the power of a remedy so active as venesection, yet whose utility is so entirely dependant, not only on time and quantity, but on the varying state of the system, is in continual danger of being rated too high or too low. I am sorry, therefore, to observe, that it is spoken of with too much confidence by some writers; because it tends on failure to bring its character into disrepute with others, though it often suffers from the opposite extreme of unfounded apprehension.

Upon the now undisputed and general utility of purgatives, it is quite unnecessary to say any thing here: They have not only the great advantage of being eminently serviceable where blood-letting is proper, but where it cannot be resorted to, and in a vast variety of milder cases of fever, where it is not required.

The preservation of individual health in the West Indies will very much depend upon following the advice contained in the comprehensive maxim of Celsus,—the avoiding of various predisposing and exciting causes, until the physical sensibility of the system is reduced by habit.

The general healthiness of that country will vary at different periods according to atmospheric influence; for of the influence of certain seasons, which has been admitted from the time of Hippocrates downwards, and even from that of Homer, I do not think any person who has followed the history of epidemics in the various parts of the globe, can entertain any reasonable doubt. It will be also affected by unusually wet, or dry, or what has been called unseasonable weather. But generally the degree of health enjoyed in the West India Islands will very much depend upon the number of Europeans introduced, the time of the year, and situation chosen, and upon the exposure being limited at first, and gradually increased.

During war, when the influx of unseasoned constitutions is considerable, particularly after active service or much exertion, great sickness and mortality are, I fear, unavoidable.

The healthiness of the Navy will very much depend upon avoiding undue exposure to the sun, rain, night air, fatigue, intemperance, and unwholesome shore duties, especially during the sickly season; and upon the attention paid to various regulations, and preventive measures, of which I have had ample opportunities of appretiating and of stating the value, from the inspection, and reports of, generally, between 60 and 70 vessels of war.

But it will chiefly be preserved by relieving the ships on that station (the prospect of which, alone, has a wonderful effect on

the health and spirits of the men), so often, that a foul state of the hold and the necessity of clearing it in that country, shall, as seldom as possible, arise. During a period of nearly eight years of the late war, considerable sickness and mortality must necessarily have occurred; but, in that time, I have likewise had the great satisfaction of witnessing, in various ships, and on various occasions, that a great degree of health might be maintained in that climate, particularly latterly, when, the season of active warfare being past, the necessity was precluded, consequently the unwholesome duties of clearing the hold, heaving down, or undergoing lengthened repairs in the close harbours of the West Indies, were interdicted; and I am therefore led to conclude, that to avoid the exciting causes is, to a great extent, to avoid the disease.

Clifton, Bristol, September 1816.

*As this Paper is intended to be
in the form of a Lecture for the
the Medical Society requested that it
not be permitted to appear in any
form of publication.*

reputation which they have previously, and sometimes unjustly acquired; but the power of a remedy so active as venesection, yet whose utility is so entirely dependant, not only on time and quantity, but on the varying state of the system, is in continual danger of being rated too high or too low. I am sorry, therefore, to observe, that it is spoken of with too much confidence by some writers; because it tends on failure to bring its character into disrepute with others, though it often suffers from the opposite extreme of unfounded apprehension.

Upon the now undisputed and general utility of purgatives, it is quite unnecessary to say any thing here: They have not only the great advantage of being eminently serviceable where blood-letting is proper, but where it cannot be resorted to, and in a vast variety of milder cases of fever, where it is not required.

The preservation of individual health in the West Indies will very much depend upon following the advice contained in the comprehensive maxim of Celsus,—the avoiding of various predisposing and exciting causes, until the physical sensibility of the system is reduced by habit.

The general healthiness of that country will vary at different periods according to atmospheric influence; for of the influence of certain seasons, which has been admitted from the time of Hippocrates downwards, and even from that of Homer, I do not think any person who has followed the history of epidemics in the various parts of the globe, can entertain any reasonable doubt. It will be also affected by unusually wet, or dry, or what has been called unseasonable weather. But generally the degree of health enjoyed in the West India Islands will very much depend upon the number of Europeans introduced, the time of the year, and situation chosen, and upon the exposure being limited at first, and gradually increased.

During war, when the influx of unseasoned constitutions is considerable, particularly after active service or much exertion, great sickness and mortality are, I fear, unavoidable.

The healthiness of the Navy will very much depend upon avoiding undue exposure to the sun, rain, night air, fatigue, intemperance, and unwholesome shore duties, especially during the sickly season; and upon the attention paid to various regulations, and preventive measures, of which I have had ample opportunities of appretiating and of stating the value, from the inspection, and reports of, generally, between 60 and 70 vessels of war.

But it will chiefly be preserved by relieving the ships on that station (the prospect of which, alone, has a wonderful effect on

the health and spirits of the men), so often, that a foul state of the hold and the necessity of clearing it in that country, shall, as seldom as possible, arise. During a period of nearly eight years of the late war, considerable sickness and mortality must necessarily have occurred; but, in that time, I have likewise had the great satisfaction of witnessing, in various ships, and on various occasions, that a great degree of health might be maintained in that climate, particularly latterly, when, the season of active warfare being past, the necessity was precluded, consequently the unwholesome duties of clearing the hold, heaving down, or undergoing lengthened repairs in the close harbours of the West Indies, were interdicted; and I am therefore led to conclude, that to avoid the exciting causes is, to a great extent, to avoid the disease.

Clifton, Bristol, September 1816.

*As this Paper is intended to be
in the Print & bound for the
the Doctor has requested that it
not be permitted to appear in any
form in the Public.*

6
LETTER

ON

FEBRILE CONTAGION:

ADDRESSED TO

DAVID HOSACK, M. D. F. R. S. F. L. S.

PROFESSOR OF THE THEORY AND PRACTICE OF PHYSIC, AND OF MIDWIFERY AND
THE DISEASES OF WOMEN AND CHILDREN, IN THE UNIVERSITY
OF THE STATE OF NEW-YORK, &c.

BY JOHN W. FRANCIS, M. D.

Professor of the Institutes of Medicine in the University of the State of New-York, &c.

NEW-YORK:

PRINTED BY CLAYTON AND FANSHAW,

No. 62 Pine-street.

1816.

NOTICE.

During the Writer's late residence in Great Britain, finding the question, Whether the human constitution is susceptible of a second attack of Yellow Fever? occupying a large share of the attention of the medical profession, it occurred to him, that the ample experience enjoyed by the physicians of the United States, would go far in settling this controversy. With the view of calling the attention of American Practitioners to this subject, and of obtaining the results of their Observations, the following Letter is published.

NEW-YORK, Dec. 1816.

LETTER.

London, June 16, 1816.

DEAR SIR,

Within a few days I set out for Bristol, and in all probability this is the last letter you will receive from me dated London. The present communication might be devoted to many interesting subjects medical and philosophical; but I am induced from several considerations to restrict my attention particularly to one. You have long been acquainted with the important controversies that have existed on that grand subject of medical disputation, contagion; with the various and contradictory opinions that have been promulgated as to its nature and effects; and with the manner in which those controversies have been conducted, especially by American physicians. The question of contagion and infection has also occupied, as you well know, a large share of the attention of the medical writers of Great Britain, especially within the last few years. Much less diversity of sentiment, however, exists in this country than in our own, and in the discussion

much less of asperity has been manifested. A single exception occurs in the case of Dr. Bancroft in his late "Essay on the Disease called Yellow Fever;" a work intended by the author to prove that this form of fever is occasioned by the operation of marsh miasmata, and is non-contagious; and of which performance it is due to the talents of the author to admit that he has displayed great learning and research. As one practically acquainted with the disease during its visitations in America for a period of more than twenty years, your own ample experience will have enabled you at once to perceive the fallacy of such speculations. Indeed, the volume of Dr. Bancroft has most materially aided in the establishment of the very doctrines which it was his object to overturn. Few writers seem to have entered the field of controversy with stronger prejudices, and, perhaps, none have communicated their thoughts with less deference to authority and in more illiberal language. It would appear to be the opinion of Dr. Bancroft, judging from his conduct, that gross invective and personal abuse may supply the place of well authenticated fact and legitimate deduction.

The revival in England of the controversy relative to the specific form and contagious nature of yellow fever has been the means of giving birth to several works of great practical value, and in my

opinion, of deciding the great question; if indeed any thing had been wanting after the laborious investigations of yourself and of other American physicians. The volumes of Sir James Fellowes and Dr. Pym have just made their appearance here, and may not yet have reached you. The former author has published the results of his practice under the title of *Reports of the Pestilential Disorder of Andalusia, which appeared at Cadiz in the years 1800, 1804, 1810 and 1813; with a detailed account of that fatal Epidemic as it prevailed at Gibraltar during the autumnal months of 1804, &c.*: the latter under the name of *Observations upon the Balam Fever which has of late years prevailed in the West-Indies, on the coast of America, at Gibraltar, Cadiz, and other parts of Spain: with a collection of facts proving it to be a highly Contagious Disease.* As officers of high trust in the medical Department of the Army, they have enjoyed opportunities of unwonted observation: the manner in which they have drawn up the respective accounts of their labours is highly satisfactory, and the accuracy of each work is fully confirmed by official documents. Sir James Fellowes, as long ago as 1795, had numerous opportunities of witnessing the pestilential fever which committed such ravages among the British soldiery of St. Domingo, and he describes the Peninsular fever as appearing

under a similar form of malignity and showing, many of the strongly marked characters of the St. Domingo fever. His history of the origin and progress of the disease clearly points out that there is a real foundation for the distinction between fevers arising directly from the miasmata of marshes and decomposed vegetable matter, and those that are the offspring of human effluvia or specific contagion. The account furnished by Dr. Bancroft under this head is clearly proved to be erroneous, and his statements, deficient as they are in the most essential requisites, will have little weight when compared with the judicious relation of the Spanish Professor Arejula. In his observations on the disorder called the Walcheren fever, which prevailed so fatally among the troops of Zealand in 1809, and after their return to Great Britain, and which disease, notwithstanding the volume of Pringle,* has most absurdly been pronounced by some writers to be the yellow fever, Sir James maintains that it possessed no contagious property, at least no evidence existed that the complaint ever had been propagated or communicated to those in attendance upon the sick. "This fact," says he, "was confirmed by my own experience, and by the testi-

* Diseases of the Army.

mony of all the medical officers of the army." "On the other hand," adds Sir James, "the numerous facts which have been recorded of the contagious nature of the pestilential fever of Spain are incontrovertible; they are detailed with simplicity and truth, and they must speak for themselves."*

Dr. Pym, in his Observations, has attempted to prove that the fever of Gibraltar was the same as the Bulam fever, so happily described by the learned and distinguished Chisholm; that it is a disease totally distinct from the bilious remittent fever of warm climates; that it has no connection with or relation to marsh miasmata; that it appears in the West-Indies only under peculiar circumstances; that it is contagious, and under a certain degree of temperature may be propagated from one country to another; that it attacks, in a comparatively mild form, natives of a warm climate, or Europeans whose constitutions have been assimilated to a warm climate; and that it differs from all other fevers, in having its contagious powers increased by heat, and destroyed by cold, or even by a free circulation of moderately cool air. According to Dr. Pym, under the name yellow fever, have been confounded three fevers, which

* Introduction, p. xxii.

he considers as totally distinct. The agency of marsh effluvia, I have already observed, he wholly rejects as a cause of the Bulam, Gibraltar, or real yellow fever. This you will perceive is striking at the root of that most pernicious error that has been so zealously and so widely propagated, notwithstanding the evidence of facts to the contrary, and the happy nosological distinctions made long since by such authors as Blane, Chisholm, Jackson, Lempriere, Clark of Dominica, Stewart, Bard, and numerous other practical observers of undoubted veracity. For I believe you will agree with me that from the want of a due discrimination on the part of many writers who have professed to describe the fevers of the United States, as they have prevailed in our sea-port towns and in different inland places of our country, have proceeded most of the dissensions that have existed on this subject. This want of discrimination too may justly be considered adequate to the production of many of the histories of the diseases of America that have appeared, and in which we find confounded fevers arising from dissimilar causes, characterised by a different train of symptoms, and varying most essentially in the methods of treatment they require.* Dr. Pym's is no feeble

* This language, I feel assured, will not be deemed too strong by those who impartially compare the different accounts of the

attempt to counteract the influence which the unwarrantable opinions of Dr. Bancroft may have had in relation to this point.

But I have to solicit your attention to a much more important circumstance made known in the volumes of Dr. Pym and Sir James Fellowes, and to communicate which this letter has been written. Dr. Pym, who had the advantage of seeing the disease not only in Europe but in the West-Indies, contends, that the Bulam fever attacks the *human frame but once*; and supports this position with the strongest proof. I will not do injustice to his statements by attempting to abridge them. Irrefragible evidence is advanced by Dr. Pym, that the Gibraltar, West-India or Bulam fever, (the malignant pestilential fever of Chisholm) are the same disease. In a subsequent essay, Dr Pym has enlarged on the subject of the disease affecting the human body but once. I must be indulged in one or two extracts.

"At Gibraltar, during the prevalence of the

fevers which prevail in the interior of our country, and more especially those that have made their appearance in the vicinity of lakes with the histories that have been given of the pestilence as it has exhibited itself in New-York, Philadelphia, Boston, and other sea-ports and places within the United States. To consider the several kinds of fevers as *grades* only of one and the same disease, is a retrograde movement in medical philosophy.

disease in the years 1810, 1813, 1814, there was no well authenticated instance of a second attack: every person escaped it, who had had it at any former period: and this fact is now so well established there, that among the quarantine regulations against the introduction of the disease this year, (1815,) *all the troops who have not passed it are encamped, while those who have passed it are doing the duty of the town.* At Cadiz, Carthage, and Malaga, the fact of persons not being liable to a second attack of this disease, is considered to be as firmly established as it is in the small-pox."

"Two more proofs of the Bulam fever not attacking a second time, were in the 70th and 55th regiments. The first suffered severely from the disease in the West-Indies, in the year 1794, and returned to that climate from Europe in the year 1800, filled up with new officers, with the exception of six, viz. Col. Dunbar, Major Elliot, Captains Johnstone, Lawrence, Hutchinson, and Boat, who had had the fever at a former period in the West Indies, and who now escaped it, although the corps buried ten of the newly appointed officers in a very short time."

"Upon a moderate computation, there were *one hundred and fifty* officers (civil and military,) at Gibraltar, who had not had the disease before, and twenty-five who had passed it in the West

Indies; and making an allowance for one or two doubtful cases, where the disease was so mild as not to confine the patient to the bed, one hundred and forty-five at least out of the one hundred and fifty were attacked by it, while every individual of the twenty-five who had it before escaped it." *Appendix to Dr. Pym's Observations.*

This same peculiarity marked the pestilential fever of Spain. According to Sir James Fellowes, it never has been known to attack the same person a second time in that country. "This fact," says Sir James, "which was first observed by the native practitioners, has now been confirmed by the experience of several years, and by the concurrent testimony of all the surviving inhabitants of those places, where the disorder had most prevailed." *Introduction, p. xxiii.*

I have dwelt so long on the performances of Sir James Fellowes and Dr. Pym, as almost to be deterred from referring to any other authority; yet I cannot forbear making a short extract from an account of the epidemic fever which occurred at Gibraltar, and for which the public are indebted principally to Dr. Gilpen, one of the inspectors of the hospitals. The paper throughout is of singular merit, and eminently calculated to do away the doubts of the sceptical, and strengthen the faith of the wavering. It is gratifying to the

philanthropist to read the answer given by Dr. Gilpen to the eighteenth query, addressed him by the Medical Board of the army.

"In private houses, in most cases," replies Dr. G. "the attendants were attacked. There were undoubtedly many exceptions in the hospitals; but it was to be accounted for, as, generally speaking, the attendants were persons who had had the disease previously either in the West Indies, or in Spain, or here, in 1804. At the commencement of the disease last year, it was calculated that there was about five thousand persons within the walls who had previously passed through it; and, after careful inquiry, there does not appear to be one well authenticated case of a person's having received the infection a second time. I heard, indeed, of three or four; but as the nature of the *previous* fever could not be exactly known, these exceptions have but little weight in so momentous a question. The exemption from a second attack, I am credibly informed, is firmly believed in Spain. At Cadiz, last year, though the fever put on the very worst symptoms, and destroyed the patient frequently in forty-eight hours, the deaths did not exceed, in a population of upwards of seventy thousand, fifty a day; and these were chiefly strangers. The Spaniards are so fully convinced they cannot receive the infection

a second time, that having passed the disease is matter of great rejoicing among them: and a medical certificate of the fact, is a sufficient passport into an infected town, which they enter without the smallest apprehension." Consult the Transactions of that active and distinguished association, the Medical and Chirurgical Society of London, vol. 5, for more ample details.

The immunity of the constitution from a second attack of yellow fever, is a peculiarity so strikingly characteristic of most disorders of an acknowledged specific nature, and of such great practical interest both in a social and political point of view, that it is extraordinary it should have met with so little notice before Professor Arejula made mention of it in the year 1806. "The yellow fever of Andalusia," says Arejula, (I avail myself of the translation of his account in *Sir James Fellowes' Reports*, p. 67.) "attacks persons but once in their lives, and it is of great importance to the physician to know this, in order to form his prognosis and his plan of cure, as well as for the individual who may have passed through this disorder, that both of them being assured of this fact, may step forward without fear to the relief of their fellow creatures who may hereafter be afflicted with so dreadful a malady." Dr. Pym, however, enjoys the reputation of being

the first English physician who promulgated this principle. I have not the sources of information at hand to enable me to determine how many of the writers on the malignant fever, as it has prevailed in our country, have entertained this opinion, though I well recollect Dr. Lining to have been one; as may be seen in his account of the fever of Charleston, published more than sixty years ago in the *Edinburgh Physical and Literary Essays*, volume second. In the interesting correspondence on the yellow fever which was maintained a short time anterior to this period by Dr. John Mitchell, of Virginia, and Lieutenant Governor Colden, of New-York, nothing is alluded to from which we might infer their knowledge of this law of the disorder. See the *American Medical and Philosophical Register*, vol. 1st. and 4th. In the *Facts and Observations of the College of Physicians of Philadelphia*, on the nature and origin of the pestilential fever, after establishing the identity of the yellow fever which existed in that city in 1793, 1797 and 1798, with the West India pestilence, the College state, that it is a circumstance that deserves particular attention, that "very few, if any, of the Creole French in this city, [Philadelphia,] suffered from the contagious malignant fever which prevailed here in 1793, 1797, and 1798, though the disease was introduced into

their families; and children born in this country of Creole parents, died with it last autumn, while the parents and the children born in the West Indies were entirely exempt from it." We look in vain, if my memory serves me, for any thing of the same sort in the *Additional Facts and Observations*, a subsequent publication of the College of Philadelphia.

In the *Sketch of the Malignant Contagious Fever* as it appeared in the same city in 1793, Dr. Cathrall observes, "it does not appear to affect the same person twice. Although careful enquiry" adds he, "has been made by several of my medical friends and myself, it only appears that some of the patients had a slight relapse of fever, but without any of the distinguishing symptoms of the disease, and very soon recovered." It is much to be regretted that the several histories of this disease published by that able medical annalist, the late Dr. Rush, should have been so confused and unsatisfactory on so momentous a matter. In his account of the bilious yellow fever of 1793, you will, nevertheless, find that the refugees from the French West Indies "universally escaped the disorder," though this was not the case with the natives of France who had been settled in the city. On the other hand, Dr. Currie of Philadelphia, in his treatise on the *Synochus Ictericus*, states, that several instances occurred of the

disease affecting the same individual a second time, and under circumstances so unequivocal that it could not be *fairly* ascribed to a relapse. This assertion, you will see, is not strongly made, and may be deemed rather matter of opinion than matter of fact.

Dr. Currie also tells us that the French West Indians, particularly those from St. Domingo, almost to a man escaped the disorder, though they made use of no precaution for the purpose, "while those from France were as liable to it as the Philadelphians." Nothing in relation to the security from a second attack of the disease is advanced by the late Professor Bayley, in his excellent volume on the Epidemic Fever of New-York in 1795, though in the 'Collection of Papers published by Mr. Webster, a writer on the epidemic of New-York, of the same year, alleges that he knew not a decided instance of an individual labouring under a second seizure.—But at present I am not duly prepared to enlarge on this point, by reference to other American authorities.

Dr. Pym has referred me to a passage in Sauvages on this disease, in which it is asserted that it operates upon the constitution but once. *Typhus icterodes* contagiosus est. Albos tantum, maxime peregrinos ex regionibus frigidis advenas, Indos, Hybridos, mulatros omnes, exceptis infantibus, una tantum vice afficit: nigri vero ab eo mor-

bo nonquam afficiuntur." See Nosologia Methodica, tom. 1. p. 316, of the quarto edition of 1768. Does your own extensive experience in the malignant epidemic of New-York, agree with the opinion that the human constitution is invulnerable to a second attack of yellow fever, and corresponding in this respect with small pox, and other specific disorders? In answer to this question, which has been frequently put to me by practitioners of medicine in England, I have uniformly ventured to assert that it holds good as a general fact. Those who have once had the disease are certainly *less susceptible* of its influence a second time.

Permit me now to make known to you the important results of the recent deliberations of two of the most distinguished medical associations of this kingdom. The decisions of the Royal College of Physicians of London, and of the Army Medical Board are at length brought to a close. These two learned bodies, alike distinguished for scientific attainment and practical knowledge, have been for a considerable time past devoted to a consideration of all the facts connected with the nature and character of the yellow fever, particularly as it has of late years appeared in Spain. The Royal College have pronounced that the yellow fever is a highly contagious disease, which decision they have reported to the Lords of the

Privy Council. With respect to its attacking the human frame but once, they say they think it *extremely probable*, but that upon a point of such importance they cannot venture to give a decided opinion. The Army Medical Board, at the head of which presides Sir James McGregor, have also given it as their opinion, that the yellow fever is in its nature contagious; and they further add their conviction, that the fever of Spain is not only strictly contagious, but that like other disorders of a specific character, it affects the human frame but once. I have been kindly favoured with an abstract of these proceedings, and I herewith enclose an extract from the official report upon Dr. Pym's publication, by the Army Medical Board. The operation of climate, soil, and other local causes, in adding virulence to febrile contagion, may be considered almost an axiom in physics; and the necessity of a strict adherence to your improved system of quarantine laws, and all municipal regulations for the purpose of domestic cleanliness, cannot be too strongly enforced. On this subject the Royal College and the Army Medical Board are united in opinion.

(COPY.)

EXTRACT FROM THE REPORT UPON DR. PYM'S PUBLICATION BY
THE ARMY MEDICAL BOARD.

Army Medical Board Office, 6th May, 1816.

"It is due to Dr. Pym to state, that we consider him to have been the first English medical

man who promulgated the opinion, that the disease in question (the Bulam fever,) is capable of attacking the human frame but once; and if that opinion be correct, which we believe it to be, it is certainly an important fact, and led Dr. Pym to employ those persons as attendants on the sick, who had undergone the disease, and therefore were not likely to be affected by the contagion of it, and thus probably saved many lives. Under these impressions, we beg leave to recommend the industry and research displayed by Dr. Pym in his book, to Lord Palmerstone's favourable consideration.

"Signed,

"J. MCGREGOR,

"W. FRANKLIN,

"W. SOMERVILLE."

The advocates for the unity of disease will, I believe, find it insuperably difficult to reconcile with their theory, the facts which I have thus hastily communicated to you; while the fundamental principle, that there is a radical difference between remitting fever and yellow fever, between fevers depending upon marsh miasms as their source, and those that take their rise from human contagion; in short, that yellow fever is a distinct idiopathic disease, acquires additional support. It may not therefore be of disservice to make known

the purport of this letter. The doctrine maintaining that different fevers are of one common origin, is in reality so unfounded in fact and so pernicious in its consequences, that the sooner it is discarded, the better will it be for the interests of humanity.

Before I conclude, permit me to add a few lines on a subject not wholly foreign to the nature of this letter, the *plague*. The account of the origin and progress of the plague in the island of Malta, in the year 1813, drawn up by Dr. Calvert, physician to the forces, and printed in the 6th volume of the Transactions of the Medical and Chirurgical Society of London, is a document of great value. The reasoning of the author, deduced from the evidence which a faithful narrative affords, seems to be very satisfactory. Contact, he maintains, is the most certain mode of communicating the disease, but he is inclined to deny that it is essential to the propagation of the contagion.

"It appears to me, says Dr. Calvert, that this contagion or principle of plague is diffusible in the atmosphere to a distance greater or less from an infected body, according to the climate and season of the year, and possibly to other peculiar states of the atmosphere, with which we are unacquainted; that in the spring or summer season a single infected person is sufficient to contaminate the air of a whole city; and that those who hap-

pen to be then exposed to febrile causes or otherwise predisposed are the first to become its victims. That these newly infected persons generate a fresh supply of poison, increasing its strength and influence, till at length it becomes so powerful, that nothing but the winter season will entirely put a stop to it."

The various reports that have been so industriously circulated concerning the contagiousness and non-contagiousness of the plague, especially as it prevailed in the army of the East, and the contradictory statements that have been made relative to Baron Desgenettes, induced me, while in Paris in the spring of 1816, to seek an interview with that gentleman, in order to ascertain the truth on this interesting subject. Dr. Delile, the companion of Dr. Desgenettes as a member of the Institute of Egypt, accompanied me. What practical advantage may arise from inoculation for the plague we are not yet able to state; that the experiment is not without great danger is sufficiently well ascertained. The Baron distinctly declared that it had ever been his settled opinion that the plague was a contagious disorder; that his extensive experience as an officer of the medical staff, had only served to confirm him in that opinion; and further expressed much surprise, that any account should have been made public representing his views in a different light. The Baron inoculated

himself with the matter of plague, though he felt persuaded that the disease was of a specific character, and had almost hourly evidence of its contagious effects: but more fortunate than the incredulous Whyte, he did not fall a victim to the experiment.

I am aware how confidently the case of Dr. Whyte has been denied. So far however from any doubt being entertained by the medical philosophers here, as to the accuracy of the statement of his inoculating himself with the matter of plague, it is well known that his preconceived notions of the nature of that pestilence, were the cause of his rashness and premature death. Of this I have been assured by personal communication with Sir Gilbert Blane and Sir James McGregor.

When I took pen in hand, I did not expect to produce so long and tedious a letter. My apology must be the nature of the subject, interesting, beyond all others, to an American physician.

With due respect I remain, dear Sir,

Your friend,

JOHN W. FRANCIS.

DR. DAVID HOSACK,

New-York.

EXTRACTED FROM

THE

EDINBURGH

MEDICAL AND SURGICAL JOURNAL.

JULY 1. 1805.

(No. III.)

A Memoir on the State of Health of the 88th Regiment, and of the Corps attached to it, from 1st June 1800 to the 31st May 1801, as originally presented to the Medical Board, Bombay, by JAMES MCGREGOR, A.M. M.D. Surgeon H.M. 88th Regiment, and Member of the Royal College of Surgeons, &c. &c.

To William Sandwith, Esq. Secretary to the Medical Board of Bombay.

I now present the Board with the compendium of another year's practice: it is drawn out to a greater length than that of last year. I have paid more attention to it, I have endeavoured to be more accurate, and, I think, I have learned a little more on a subject of which, on coming to this country, I was entirely ignorant.

In presenting it to the Board, I am aware that I am doing it to those who are the most competent to judge on the subject: every circumstance which I shall advert to they are intimately acquainted with, as well from the monthly reports, and the details of cases and dissections, as from inspection of the regimental hospital, while the 88th regiment was stationed at the presidency. The account of last year was brought down to the 9th June 1800: However, in order to have a complete period, I have commenced the present from 1st June 1800, and brought it down to the 31st of May 1801.

In addition to the account of the diseases of the 88th regiment, I have given that of detachments of other corps, which had been placed under my charge. On two particulars a good deal of time has been paid, as well as attention; viz. the state of the weather, and the dissections of the dead. A meteorological journal was regularly

A

gularly kept: The state of two thermometers, both in the sun and in the shade, at least four or five times in the day, was compared by Mr Bruce and myself. The instruments were, I believe, both correct. We paid all the attention we could to the dissections, which were generally performed by Mr Bruce, Mr Tonry, and myself. Never less than two attended; and, to avoid mistakes, notes of the appearances were taken down on the spot by each.

June 1800. In this month we received a very considerable addition to the sick of the former month*. The monsoon continued to threaten, and a little rain fell before the 12th of June, when a great quantity fell. The number of inches which fell daily after this was considerable; but I had no opportunity of measuring it accurately. After the 12th, there was not a fair day in the month. The thermometer in the shade, in the beginning of the month, ranged from 86° to 92°; from the 12th to the end of the month, from 75° to 82°. From the beginning of the month, the number of sick continued gradually increasing. On the 24th, there were 204 in the hospital, from the 88th regiment and the detachments. In the beginning of the month, there arrived from England 53 recruits for the 75th regiment, 30 for the 77th, and 47 for the 84th regiment. There likewise arrived a detachment from the Red sea of 217 men of the 84th regiment, under Colonel Murray. Of the above detachments I had the medical charge.

All the men, as well from the Red sea as those from England, arrived in a very healthy state. This, however, had not long been the case with Colonel Murray's detachment from the Red sea. Since they had left Bombay, fifteen months before, they had lost 41 men. During this period, they were stationed five months at Aden, five months on the island of Perim, at the Straits of Babelmandel, and five months at Suez. In the latter place they were very healthy: they had but a few men ill of the scurvy at Aden, and most of their loss was at Perim, where hepatitis and fever were the only diseases. There the thermometer in the sun stood at 130°. Of the great number of sick in the hospital at the close of this month, though the 88th regiment daily sent some, a large proportion came from the detachment of the 84th. This perhaps was partly owing to the change of season, and partly to some unavoidable irregularity among the men after arriving from service, and receiving great balances of pay due to them. In the 88th regiment, with a great deal of sickness, only four deaths fell on this month. Of the 25 dysenteric cases admitted, many proved tedious; and of the five cases of hepatitis, the

* See the Annals of Medicine for 1801.

greater part were treated with nitric acid, and were soon cured. We received several cases of measles; several of catarrh, and many troublesome ophthalmias: and I never saw inflammation run higher than in this last disease. A very large proportion of the detachments was admitted into the hospital; and, towards the end of the month, many of the cases put on a very serious appearance; but no one died during the month. In the detachment from the Red sea, many old cases of chronic hepatitis made their appearance, and the greater number of the recruits were attacked with dysentery.

July. From the 12th of last month to the end of July, there was only one fair day, the 8th of July. The quantity of rain which fell was very great, and the thermometer moved from 79° to 83° in the shade. Of the 88th regiment, there were 154 sick in the hospital during the month. Of these, 82 were admitted in the course of the month. The distribution of them may be seen in the annexed table. Five died in the course of the month. The rheumatic cases proved nearly as obstinate and tedious as we have ever found them in England. The occurrence of scurvy in two men, whose diet was always fresh animal food, with a proportion of vegetables, was a matter of surprise. Some months before, both of them had gone through courses of mercury. The diseases of the eye yielded more, perhaps, to the change of season than to the remedies, but in each of two cases an eye was lost. The detachment of the 84th sent 96 to the hospital during the month. Of these, 36 were venereals, 32 dysentery, and 12 hepatitis, relapses of diseases contracted in the expedition to the Red sea: the rest were catarrhal, rheumatic, and other less serious cases. Many of the dysenteric cases being slight were treated with Pulv. Ipecac. Comp. and some of the remedies used in the same month last year in the 88th regiment: but, in almost every case, we were obliged to desert this plan, and to have recourse to mercury, or the nitric acid. The 84th regiment had been nearly five years in a warm climate. Did a five years' residence in a tropical climate establish this difference between the men of the 84th and 88th regiments? In the same month last year, the European practice succeeded in the latter regiment; but, as we afterwards found, it had not now the same success as on their first arrival in the country. One of the 84th detachment died. Of the 75th we admitted, during the month, 34 into the hospital, or more than one half. They were as follows: 15 of dysentery, 10 of catarrh and pneumonia, and the remainder were venereal and trifling complaints. None of them died during the month. Of the detachment of the 77th, 22, or more than three-fourths of their strength, were sent to the hospital in

the month; viz. 12 with dysentery, five pneumonia, and the rest catarrhal and trifling complaints. The dysenteries of the 75th and 77th regiments were successfully treated with sudorifics, occasional cathartics, and opiates; and venesection was performed in many instances.

August. During the whole of this month there was only one fair day, the 2d; but, towards the end, the showers were not heavy: it for the most part rather drizzled than rained, and the wind was often high. The thermometer in the shade, in general, moved from 78° to 83° . On the 12th, 13th, and 15th, it was never higher than 80° , or lower than 78° . On one day, in the end of the month, the mercury got up to 84° . In the 88th regiment, the number of admissions was still considerable, and the proportion of deaths great, viz. five. Of 31 cases of dysentery that occurred, a great many were relapses, and we found many of them the severest and most tedious cases that ever occurred to us. The four cases of hepatitis were very acute, and venesection, blisters, and cupping, were of the greatest service. Three more cases of scurvy occurred. The two cases of splenitis were very acute. Two of the men with dysentery passed lumbrici by stool; one vomited them up, and in another they were found in the colon after death. Of the five deaths, one only had been taken ill in the month.

The detachment of the 84th sent fewer men to the hospital during this than in former months; but we had still many of their severe liver cases, three of which were of very long standing. One of the recent cases died. Of the 75th, a considerable number still appeared. The prevailing diseases were dysentery and pneumonia. One of them died. The 77th was nearly in the same situation. One case of fever died, but nothing could be discovered on dissection.

September. In this month there were some fair days, viz. 5th, 13th, 17th, 19th, 20th, and 22d. In the shade, the range of the thermometer was, in general, from 79° to 86° . On the 25th, 26th, and 27th, it rose to 87° . During the last ten days, we had much thunder and lightning, and the heavy showers were succeeded by very close and sultry weather. On the whole, this month proved rather favourable to us. In the 88th regiment we lost four men: but one of them had been ill since June, and the three others since July. Of the 31 dysenteries, nine were treated with nitric acid. Though the two hepatic cases were not so severe as those which occurred in the former month, yet they were attended with much inflammatory diathesis, and were successfully treated, in the beginning, by bleeding and the antiphlogistic regimen, and latterly by the general use of nitric acid. One of them

was

was dismissed cured in the course of the month. The four cases of ascites did well by giving them calomel, cream of tartar, and squills. Four more cases of scurvy appeared, and the first case of the Guinea worm, a disease which afterwards so much infested us, made its appearance. The detachments were all embarked to join their respective corps on the 13th. But the whole detachment of the 75th, and the sick of the 77th and 84th, were relanded on the 18th, owing to a causeless alarm of the captain of the ship in which they were. Of the 84th there went to the hospital, before their embarkation, 14, and two afterwards. Two of them died, both of hepatitis; one of them a very old case, and the other had been taken ill in the former month, and he was the only case of the disease that had appeared among the recruits. Three serious cases were admitted from the 77th, and a considerable number from the 75th, almost all of which were severe. One man, who had been three months ill, died. On the whole, at the end of this month, we had fewer serious cases in the hospital than in either of the three former.

October. We experienced, in the course of this month, a great variety of weather, and great alternation of heat and cold. The month began with very sultry weather; the heat daily increased, and we expected no more rain. There was much thunder, which we hoped was to close the monsoon; the wind was for the most part northerly. On the 10th and 11th we had a little rain. On the day of the full moon, viz. the 16th, as well as on the three days precedent and subsequent to it, we had several heavy showers. After this, it continued fair till the 27th, on which, and on the 28th, there was much rain, a little on the 30th, and a great deal on the 31st, on which day it blew a hurricane. The thermometer had a wide range, but as, during this month, we changed our situation, a distinction is here necessary; from the 1st to the 8th, at Culaba, it moved from 78° to 89° in the shade. From the 9th to the 31st, in the fort of Bombay, it was never below 78° , nor above 88° , and, standing in the sun, the highest point that it attained was 95° . On the 31st, in the shade, the mercury moved between 74° and 78° during the whole day. It ought to be mentioned, that both thermometers were suspended in the hospital, which is surrounded on one side with a wet ditch, and is perhaps the coolest situation in the fort of Bombay. The 88th regiment marched on the 8th from Culaba, and took up the quarters of the 86th regiment in the King's barracks. The 86th went to Culaba. In the beginning of this month we had few admissions, and none of them cases of serious disease; but towards the middle of the month, and immediately after the heavy rains, our admissions were numerous, and all of them serious cases. They

They differed from the diseases we had lately seen the most. From the 13th to the 23d, 17 cases of fever appeared; they assumed different types latterly, with the symptoms of hepatitis, and in seven the bowels were affected, and they were treated as dysentery. This is mentioned, because, in a majority of the cases of dysentery which appeared hitherto, there were no febrile symptoms. The case of splenitis was very acute. Of the six cases of hepatitis, three originated in the present month. All the hepatic as well as splenic cases were treated with nitric acid. There were six deaths, of which two were from illness contracted in the present month: the others were in the hospital since July and August.

The second case of the Guinea worm appeared after we marched into Bombay. The sick left by the detachments all recovered, and, about the end of the month, were sent to join their regiments.

November. The stormy weather which ushered in this month, and which, on the 1st, was particularly boisterous, being the day of new moon, continued till the 3d. From this time, a little rain daily fell till the 7th, when a great deal fell; but, after this, it continued fair till the end of the month. The wind was variable, but oftenest from the north. The thermometer continued to fall, and, before the middle of the month, we felt that the cold season had fairly set in. The mercury had an extraordinary wide range from 68°, 50°, to 130°, in the open air. Such a variation of climate in one day, and in one situation, we expected would have been attended with proportional sickness. The mornings were foggy, raw, and cold. From seven to ten o'clock in the morning, the wind was hot, dry, and scorching, which, in many, occasioned a kind of erysipelas: the middle of the day was refreshed by the prevailing wind; but the evenings were very damp, and much dew fell. In the course of the month, more dysenteric cases were sent to the hospital than in the three preceding months; but many of them were relapses from old diseases. More cases of hepatitis appeared than in either of the two former months. Of the four deaths, three had been from sickness of many months, and the other had been ill since October. In the case of phthisis pulmonalis, much benefit was derived from lowering the atmosphere in which he breathed. Two more cases of Guinea worm appeared, and a severe enteritis. At the end of this month, there were fewer sick than in any of the six months before.

December. This month set in with weather much the same as prevailed during the last. The thermometer seemed to be getting lower.

lower. It was generally at 76° in the morning, and seldom above 83° at noon, in Bombay.

On the 4th, orders arrived for the 88th regiment to embark next day. On the day following, every man of the regiment, with the exception of one, appeared on the parade; and this was the man ill of consumption, already mentioned. I met him on his way from the hospital to the parade, and had some difficulty in prevailing with him to return back. Different circumstances prevented our embarkation before the 9th, when 22 of the Company's artillery, with 40 gun-lascars, 106 of the 86th, and 453 men of the 88th regiment, embarked in the *Minerva*, a ship of nearly 1000 tons burden. Her crew, amounting to 145, besides some native followers of the troops, made a total of more than 800 men on board; and she, besides, had a great part of a cargo, and many stores on board. I am thus particular, as I think the sickness which prevailed during the next and the following month is principally to be attributed to the situation of the troops on board the *Minerva*. We sailed on the 9th, and on the 29th dropped anchor in Point de Galle roads, in Ceylon; and on the 30th all the troops were landed. The cinnamon storehouse was assigned to the detachment of the 86th and the 88th regiments for barracks. It proved dry, and very healthy. The quarter for the artillery was not so good, it being a low, damp room. The weather, from the time we left Bombay, till we got within two degrees of Cape Comoria, was much the same as we had experienced at Bombay. The wind for the most part was S. or S. W. As we approached Cape Comoria, however, we had rain, which increased the nearer we came to the opposite coast of the peninsula, where the monsoon was still in full force. The thermometer, from the 10th to the 22d, ranged from 77° to 81°. From the 22d to the end of the month, it continued between 76° and 80°, unless on one day, the 28th, when the mercury got up to 82° 5'; and, during the three last days of the month, the rain was as constant, and as violent, as in the severest days of the monsoon. From this weather the men suffered severely. As many as could be crowded below were kept on the orlop-deck and gun-deck; but nearly 200 men could not find room below, and were of course constantly wet. The detachment of the 86th regiment was kept on the poop during the passage. In two small brigs, the *Fancy* and *Shannon*, about 200 hospital and other followers were embarked, who, being equally crowded, suffered nearly in the same proportion with the troops. The number of sick that appeared in the course of the month was not very great; and very few applied till nearly the end of the voyage.

In the 88th regiment, the number of men ill of hepatitis was nearly

nearly double what it had been in any of the eighteen months during which the regiment had been at Bombay. In all of them, the symptoms were very acute. On the other hand, the number ill of dysentery was not more than half what there used to be during the same period. Of nine cases of fever, two were intermittents. Six cases of the Guinea worm appeared in this month.

Of the detachment of the 86th regiment, in the course of 21 days, 15 cases of disease occurred, and all of them very serious. Of these, two cases of hepatitis appeared, which both pointed externally. In one a cure was effected, but the other died. There were also nine of dysentery, all of which were as severe as we had ever seen; one of Guinea worm, one of intermittent fever, and one of ophthalmia.

In the artillery there were two cases of dysentery; one of which was particularly severe.

Among the ship's company, particularly the lascars, there were many pneumonic and catarrhal cases; besides three of intermittent, and one of tetanus.

Jan. 1801.—The diseases of this month, as we expected, were much more considerable than in the last month. The situation of the fort of Point de Galle is very favourable to health. It is built on a rock, which forms one extremity of an extensive bay. The site is elevated, and the Dutch have built here a very handsome town. There being no water at hand, it is luckily free from the usual ornaments of a Dutch town, dykes and ditches. Perhaps more cannot be said for Point de Galle than the situation of the 19th regiment of foot there; which, three months before our arrival there, had returned from an expedition to Candy with about half their number sick, and at this time they had only 15, out of 300, men sick.

On the 7th, the total number of sick from the artillery, 86th, and 88th regiments, amounted to 70. At the end of the month it did not exceed 30. The month set in with rain, and continued so till the 12th; after which there was rain only on one day, viz. the 27th. The thermometer was seldom below 77°, nor above 82°, in the shade, and in the open air 106°. The number of sick of the 88th regiment was 44, of which one died suddenly, and there was no opportunity for inspection. Of the four cases of hepatitis which appeared, three had the disease before at Bombay. The dysenteric cases mostly were men that never had had the disease before. The detachment of the 86th regiment had 16 sick, two of whom died. The diseases were; hepatitis two; dysentery twelve; fever one; pneumonia one; and Guinea worm one; which last was brought from Bombay. The artillery, be-

sides

sides several venereal, had two cases of hepatitis, which were very acute. The gun-lascars had pneumonia very generally. The ship's company had a great number of pneumonic and rheumatic cases.

On the 3d of the month, the Honourable Company's gun-brig the Panther, with three gun-boats, arrived from Bombay, bringing 30 more artillery and lascars, all healthy. The only sick they had were three venereal cases.

Of the native followers, three died of fever. Pneumonia and rheumatism prevailed very generally among them, and they had also some ill of dysentery.

February. In this month we left Ceylon. The troops were all re-embarked on the 14th. Eight companies of the 88th regiment, with 22 artillery and four lascars, remained on board the Minerva; and they are the only part of which, after re-embarkation, I can give any account, at least at present. Two companies of the 88th regiment were sent into the Fancy with Mr Bruce; the detachment of the 86th, with some lascars, into the Hope, with Mr Hoyes; and the followers were sent on board a vessel hired for the purpose. At Point de Galle some rain fell on the 15th and 18th; and the wind was, in general, easterly. The medium height of the thermometer in the shade was 85°, and in the sun 106°.

On the 19th we failed; and for the remainder of the month continued beating up the Malabar coast. On the 23d, immediately after passing Cape Comorin, we had heavy showers; but it continued fair during the remainder of the month. In the 88th regiment, there was less sickness than during any month since their arrival in the country. The two cases of hepatitis were both recurrences of former complaints, and the dysenteric cases were, in general, slight. The detachment of the 86th regiment, during the first fortnight of the month, had one case of fever, and two of hepatitis. There were also four ill of dysentery. In this period three died.

The artillery had one death from hepatitis, and another case of the disease also appeared.

The gun-lascars were healthy, as were also the crews of the Panther and gun-boats.

The ship's company had six pneumonic cases, four venereals, two cases of Guinea worm, and one of malignant ulcer.

The difference of susceptibility to the variolous contagion, in this country and in Europe, was formerly remarked: another striking proof here presented itself. At Point de Galle, during our stay, the small-pox prevailed very generally, and proved fatal to the natives, the Cingese, Malays, and Portuguese, who

B mix

mix much with them. It likewise appeared in a few Dutch families. But of the 19th regiment, or of the troops from Bombay, no person had taken it. On the day we sailed from Galle, a sick native follower, one of our bakers, was shown to me, and, on examination, I found a large crop of confluent variolous pustules on him, which could not have been out less than two days. He was immediately sent on shore; but no one on board caught the infection.

March. From the 1st to the 29th of this month we were beating up for Bombay, and dropped anchor off that place on the 29th, the wind being north-westerly. As we passed near the extremity of the peninsula, on the 3d, there was rain, and lightning on the 11th, 13th, and 14th. After this, we experienced the usual fair weather of the season on the western side of the peninsula at this season.

The thermometer, till the 3d, continued equally low as in last month, when we were at sea. On this day, the wind being southerly, the mercury rose to 85°. On the 19th, 20th, and 22d, it stood at 87° at noon. On all the other days, it varied from 78° to 83°. In Bombay harbour, which, as seamen express it, is landlocked, the thermometer at noon moved from 87° to 90° on the gun-deck. The number of sick was less, but the mortality proportionally greater, than in any other month since leaving Bombay in December. Of the three deaths in the 88th regiment, two were from sickness contracted about the 23d of December: both were attacked with pneumonic symptoms; and it was not until the last three weeks of their illness that the symptoms indicated an affection of the liver. The other man who died had been ill, since the 3d of February, also of hepatitis. On the whole, the state of the regiment at sea this month was very favourable: The proportion of actual sickness is not more than one-twelfth or one-thirteenth part of the strength, which is less than at any preceding period. For the first time, no case of hepatitis occurred during the month. There were ten ill of dysentery, of whom seven were recent, and had never had the disease before. There was only one case of pneumonia, which proved mild. Of Guinea worm, 103 cases occurred during the month.

In the artillery there did not occur any sick this month. A severe case of dysentery, sent to the *Minerva* from one of the gun-boats at Ceylon, died in this month. Among the ship's company two cases of dysentery occurred; seven of pneumonia; five of rheumatism; two of Guinea worm; and two venereal complaints. In an obdurate case of intermittent, of five months duration, which had resisted bark, mercury, arsenic, and several other remedies, a cure was effected by the nitric acid mixture.

and

bath. This appeared the more surprising, because, in some instances that occurred, the acid bath had been suspected of occasioning intermittent.

April. We commenced this month in Bombay harbour, where the heat was intense. There was some change in the arrangement of the troops made here. Six of the 88th regiment, and the whole of the artillery, were sent on shore; and 40 men of the 88th, who had been left in December, were received on board.

On the 3d we sailed for the Red sea. The thermometer, which, in Bombay harbour, was from 88° to 90° in the shade, ranged, between the 3d and the 10th, from 78° to 82°. On the 11th and 12th it continued the same. On the 13th and 17th it was stationary at 79° and 80°. On the 18th, when we were between Cape Aden and Babelmandel, it rose to 83° 50°. On the 19th we anchored in Mocha roads, and sailed the day following. The thermometer now continued to rise till we reached Judda on the 27th, when it was 89° in the shade. On the 28th, a north wind brought it to move, during the day, between 78° and 80° 50', and this continued during the remainder of the month. The wind was variable. It blew, in the beginning, from the S. and S.E. and in general N. N.W. On the 22d and 23d there was lightning and calm weather. Having heard it asserted, that in the Red sea, the quantity of salt, kept in solution in the sea-water, was very great, I made trial of water from the surface; but I found the quantity much the same as that discovered to be contained in the water of the Mediterranean. It was likewise said that the dews were very heavy; but as far as I could ascertain, by weighing the quantity fallen in a given time at night on a piece of lint six inches square, there was not more than usually falls in Bombay. The sickness of the month was considerable, but no one died. Only one case of hepatitis appeared, and the disease was speedily subdued. It is remarkable, that as many cases of dysentery occurred during the first eight days after leaving Bombay as in the whole of the preceding month. After the 13th only two cases occurred. The number of men ill of the Guinea worm, at one time, was truly alarming: it amounted to 160. Many of them had very bad ulcers; and, in fever, mortification took place. In the course of the month, 46 men were admitted with this disease.

Among the ship's company there occurred two cases of dysentery, ten of pneumonia, two of typhus, thirty-four of itch, and two of ophthalmia.

May. In the beginning of this month we were endeavouring to keep to sea, as it blew a very strong gale from the N. and N.E. It was calm on the 4th, but the wind increased in the evening,

2

blowing

blowing from the south. At this time the Honourable Company's ship Cornwallis of 50 guns, with transports conveying artillery, and two battalions of sepoy from Judda, joined us; and we sailed on the 5th for Koffier, where we arrived on the 18th, and disembarked on the 20th. This was the first part of the army which encamped in the desert of Koffier. Some days following, the 10th, 61st, and 80th regiments, also landed, and encamped, as well as the battalions of Bombay and Bengal sepoy. The former were very unhealthy, and had suffered much on the passage from remittent fever, which prevailed in the greatest degree in two ships, the Cornwallis and Milford. The first battalion of the 7th Bombay sepoy regiment landed 300 sick. In one of the ships, several men were ill of the scurvy.

The prevailing wind during the month was N. W. There was no rain; but we learned that, a short time before our arrival, it had rained at Judda and Koffier, and that it was a very uncommon phenomenon at both places. For the first three days, the thermometer was from 77° to 80°; on the 4th and 5th, from 80° to 84°; from the 6th to the 11th, it ranged from 77° to 80°; from the 12th to the 15th, it moved from 82° to 88°. On the 16th, 17th, and 18th, it was from 77° to 80°. On the 19th and 20th, in my cabin in the Minerva, it was at 75° at six in the morning, and at noon it stood at 86°. The ship was then moored close to the shore in Koffier harbour. In the camp, the thermometer was said to be 15 degrees higher. We commenced the month with more actual sickness than last month: the great and sudden change of climate which we experienced in the last days of April was very generally felt. There were many instances wherein the chest was affected, and in some the cold appeared evidently to be the exciting cause of dysentery. We had no case of hepatitis. Of the ten men ill of dysentery, all got well in the course of the month, excepting one, in whom symptoms of diseased liver appeared. Only eight recent cases of Guinea worm occurred.

The ship's company had one man ill of hepatitis, one of dysentery, six of pneumonia, and two of Guinea worm.

At the end of the month the regiment was in a favourable state. The whole of the sick did not exceed thirty; yet the heat was intense, the regular duty severe, and, preparatory to the march to the Nile, there was much duty of fatigue, which, from a want of native followers, who usually do it, was done by the soldiers themselves. The camp was situated on a dry, hot, sandy desert; and the only wind felt was an extremely scorching one, which generally set in about ten in the morning, and lasted till three o'clock in the afternoon. One circumstance appears to deserve

serve notice: the little water that could be procured was strongly impregnated with vitriolated magnesia; and no one escaped a diarrhoea, which, perhaps, had a salutary effect. In this month we lost one man from hepatitis, and another from dysentery.

The town and fort of Koffier, built of mud, is situated in latitude 26° N. on the west shore of the Red sea.

From the above sketch, I will not venture to draw many inferences, though many obvious, and some useful, appear to present themselves. On taking a review of the last and of the present year, it still appears that the most unhealthy months are those in which the seasons change. When the seasons of the two last years at Bombay are compared, that of the present appears to be the most unfavourable in many particulars. The rains set in much earlier, were much heavier, and continued much longer, than in the former year. The dry season, too, was proportionally hotter. In this unusually severe season, the men suffered much from the peculiar situation of the barracks on the island of Culaba. Sixty cases of dysentery admitted in July are very considerable; but, in July 1799, we admitted 129 cases. Here, then, we appear to have gained by being more than a year inured to the climate. From the state of the men of the 88th regiment at the end of November, and in the beginning of December, when ordered for service, we may venture to affirm, that the regiment would have been more healthy, and that fewer deaths would have occurred in the subsequent months, had they remained at Bombay. The situation of all on board the Minerva sufficiently accounts for the many liver and dysenteric cases occurring in December and January. The same causes seem uniformly to produce both diseases, and the same treatment is equally successful in either disease.

For the last 18 months, in the hot season, the men were daily marched two miles to the fort of Bombay, were much exposed to the sun on the garrison-duty, and, in the heat of the next day, were marched back to Culaba. Yet it appears, by the tables of both years, that the hot months were, *ceteris paribus*, the most healthy. If heat be noxious, something in this instance obviated its effects. Was this exercise? An instance in point, though not within the date prescribed, will illustrate this. In June and July 1801, the degree of heat, on a march of 130 miles over the sandy desert of Thebes, and on the banks of the Nile, in Upper Egypt, was extreme. I have seen the thermometer, in a soldier's tent, at 118°. The soldiers had, at the same time, to combat with severe duty, from being without native followers, and the effects of the pernicious drying wind peculiar to the country; yet, under all these circumstances, the health of the troops was equal

equal to what it had been at any former period in India. Heat of itself, then, does not appear to be the principal cause of the prevailing diseases.

On looking over the returns, and observing the proportional sickness of different periods, a periodical increase was very striking. The eight or ten days that followed the payment of the balance of pay due to the men regularly produced much sickness. The soldier's pay in India, as in England, allows him at times to indulge in excess. He is amply supplied with provisions, and perhaps the usual allowance of arrack issued to him is too great. In the rainy months it is half a pint daily, and, in the dry season, it is half this quantity. As the price of arrack is low, he very often procures as much as he can use; besides which, he has often access to tarry, or toddy. Some degree of intoxication and irregularity is perhaps unavoidable. Intemperance has hitherto always appeared as a principal cause of the diseases which prevailed. On the march over the desert, and on the voyage down the Nile, no spirits were issued in July and August 1801; yet the army, in general, were uncommonly healthy.

The catalogue of diseases is more extensive than that of last year. Perhaps our frequent change of situation might have contributed to this. In the diseases of the present year we could, in general, observe less vascular excitement than in the first year.

A majority of the dysenteric cases appeared either immediately after the setting in of the rains, or in the course of the rainy season. In some cases, we could trace the exposure to moisture as the cause of hepatitis and dysentery. The suffocating heat that followed the rains perhaps aided as a cause, and still more, perhaps, the inactive state of the men during the wet season. On the idea that inaction aided as a principal cause, the commanding officer ordered, that in this season, when it was fair, the whole regiment should be marched out for an hour; and, while the men were thus exercised, the barrack-rooms were aired and dried, the whole of the bedding and furniture being kept out. Yet, notwithstanding this, and, I believe, every attention which could be paid to men by officers, during and after the rains, the number taken ill was very great.

Though, perhaps, a residence for a certain length of time, or a naturalization to the climate is necessary, yet one reason may, with probability, be brought forward to account for the difference in point of health between European and native corps. A native of India is accustomed at first to see the meals of animal food devoured, and the quantity of spirits drunk by Europeans.

There

There can be little doubt, that the nearer we approach to the mode of living of the natives, the more nearly we shall attain their state of health.

The same disease appearing in India and in Europe differs materially in several points, and requires a different treatment in each country. Hepatitis, for instance, is a disease which makes its appearance frequently. Upwards of 100 cases appeared in the course of the present year, the majority of which were chronic diseases, recurrence of diseases which had appeared in the first year. The '*tussis sicca*,' and '*decubitus in latu sinistram difficultis*,' were rare symptoms; and there was singultus in only one or two cases. We found not a little difficulty in drawing the line between hepatitis, phthisis pulmonalis, and some severe cases of pleuritis. An accurate diagnosis is here much wanted. Several men were first seized with pneumonic symptoms, and latterly had symptoms of an affected liver. In the course of the present year, a few cases terminated fatally, even after a flow of saliva from the mouth had been excited. In several instances, the gums could not be affected till venæsection had been performed. After this, a small quantity of mercury affected the gums; and, after they were affected, a liberal use of the bark was found to be highly serviceable.

The relapses of this disease and of dysentery were more frequent than in any disease which I recollect, not excepting fever. Bleeding and cupping, on the first attack, cut short many cases of the disease. A swelling pointed externally only in three instances; and in only one of these was I allowed to make an incision. In a man of the 88th regiment, after a pointed tumour had appeared for some days in the side, it suddenly disappeared, and he recovered. In four cases, matter was discharged by stool; and in one a cyst burst, and discharged its contents into the cavity of the abdomen.

There were upwards of 500 cases of dysentery. In the 88th regiment, however, many fewer occurred than in the last year. It would appear that the general causes of this disease differ in India and in Europe; and there is not a little difference in the symptoms. Dysentery was attended with fever but in a few instances, and in these it was the synocha of Cullen. I do not think that scybala were passed in six cases. The tenesmus appears to arise from a different cause. Purgatives do not appear to give the same relief as in Europe, or even in the West Indies. Several cases of a very acute disease appeared, which ran its course in four, five, or seven days. The usual practice did not succeed here. The best treatment appeared to be, after a dose of castor oil, to give opium by the mouth and by glyster, and to make

the

the patient drink freely of a solution of gum Arabic at the same time. In some cases I have given diluted nitric acid liberally, with tincture of opium. A constriction of the vessels discharging mucus was in this way effected; the incessant discharge was stopped, and time given for a secretion of mucus to cover the abraded gut. I have thus sometimes succeeded in checking a most violent disease. Thereafter the mouth could be gradually and gently affected by mercury, and by nitric acid. I have nearly divided the number of cases that occurred between the two modes of practice; and, after the utmost attention that could be bestowed, the success of the two appeared nearly equal. As in last year, several succeeded with mercury, after the acid had failed, and *vice versa*; and, after a failure of both modes separately, the conjoined use of them succeeded. For this I can assign no reason. When nitric acid was used, the external and internal use of it was constantly ordered. The mean quantity taken internally in the day was about six drachms. Enemata, in many cases, gave the highest relief. An infusion of ipecacuanha, solutions of vitriolated zinc, and of acetated cerate, and diluted nitric acid, were frequently employed.

The cases of splenitis occurred in July, and proved tedious. Cupping, and keeping the bowels loose, seemed to be of more service than any thing else. Various mercurial preparations, and also nitric acid, were tried, but appeared to do no good. In one instance, the symptoms of splenitis ended in those of hepatitis.

Of nearly 100 cases of fever which occurred, the greater part were trifling, and originated from inebriety or exposure to the sun. They required only rest, and perhaps a purgative, and the patient recovered in two or three days. The irritation produced by the Guinea worm occasioned a smart fever in several. Thirty cases of intermittent were cured. The fever which appeared in October and November was remittent. In two cases there was at first a great deal of reaction, which ended in extreme debility. These two approached the nearest to typhus of any cases I had seen since my arrival in India. Affusion of cold water seemed, in these two cases only, to succeed, though it was tried in several others. In severe paroxysms of intermittent, the exhibition of opium stopped them; and some of them were cured without the aid of any other medicine. Creëta, a bitter root used by the natives, was given as a substitute for the bark, and succeeded in two instances. In all the severe fever cases, the cure was always more speedy and certain under the exhibition

tion of mercury, until the gums were affected; and several of the worst cases resisted every other remedy.

None of the cases of fever or dysentery appeared to be contagious. A battalion at Kosliar had about 300 men ill of fever, and another battalion had 140. In both cases the fever was remittent, and the combined use of mercury and bark was found to be the most successful treatment.

The measles all appeared in June. When the same disease appeared in Europe, it generally made its way through a great part of the regiment. The inflammatory symptoms were mild: the after affection of the eyes was the most troublesome part of the disease. Though the croup was very prevalent both in the town and in the island of Bombay in September, October, and November, and though several adults died of it, yet no case appeared among the women, children, or men of the 88th regiment, or of the detachments.

Many cases of pneumonia occurred, and not a few of catarrh and rheumatism; but, in general, the symptoms were very mild, and the disease was easily managed.

Only one case of well-marked phthisis pulmonalis occurred; and this points out one remarkable difference between the Indian and European climates. For the last eight years, the number of cases which yearly appeared in the 88th regiment was, I believe, never so few as six: in the solitary case which took place this year, reducing his atmosphere had the best effect. Several cases of cholera morbus, and a few of icterus, occurred; but the symptoms were mild, and not of long duration.

Scurvy.—The appearance of this disease in the 88th regiment, situated, as they were, in barracks on the island of Culaba, is not a little extraordinary. As already mentioned, it made its appearance in July, soon after the setting in of the rains, and the number was but small. In the absence of some of the usually assigned causes, I recollect the doubts expressed by the Members of the Board, till inspection convinced them of its actual existence.

The first case that appeared had formerly been subject to the disease on the passage from England, and, on landing in Bombay, he was cured by a remedy in common use in India, the fermenting juice of the cocoa nut tree, called toddy. Nitric acid was prescribed, and got a fair trial, but the citric acid was found necessary to the cure. The next case proved fatal. The most severe scorbutic symptoms appeared, viz. Dyspnoea, contracted joints, livid blotches over the whole body, spongy gums, fetid breath, and, for the most part, an incessant diarrhoea. The appearances on dissection in this case are hereafter taken notice of.

of. The third had his mouth putrid, and the teeth were literally shaking in their sockets, as in a skull. The three next were of a slighter nature. Another had a severe ophthalmia, which had resisted a variety of applications, both external and internal, for five months, when the acid of limes was thought of. In twelve days it effected a cure. The only scorbutic symptoms in this case were, a tenderness of the gums, and a blue sloughiness round the edges of a feton. In four, nitric acid was liberally given, both externally and internally, and persisted in. For ten days the acid afforded relief, but afterwards the disease gained ground; and, in all the cases but one, cures were effected by lime juice, and by giving the fruits of the season. I shall not attempt to account for the appearance of this disease. Moisture, one of the commonly assigned causes, was present. But though the men used but few vegetables in their diet, yet, during the whole time, they were daily supplied with fresh meat.

Tetanus.—A case of this disease occurred, which was treated successfully. As this was done by a mode of treatment which, with the theory which gave rise to it, is, I believe, now considered as exploded, it may not be uninteresting to mention what led me to give it a trial. In the year 1794, the first tetanic case I met with occurred at Bergen-op-Zoom. My hospital steward, serjeant Kirkland, after remaining out drunk the whole night, was, in the morning, found lying in a ditch. This was in the month of August, and the weather was remarked to be unusually hot. When brought to the hospital, his jaws were so firmly locked, that the blade of a penknife could not be introduced between the teeth. Mercury was had recourse to, but, in a few hours, the muscles of the neck became convulsed, and, by the advice of an eminent physician of the place, he was immersed four times a-day into a bath of broth. He continued in it half an hour each time, and, after he came out, his whole body was rubbed over with mercurial ointment, and his gums with calomel. I do not recollect that any thing else was given him, unless a stimulant enema. Next morning the good effects of this treatment were most evident. A violent salivation came on, and, in about three weeks, the man was doing his duty. In the next case which occurred, though a cure was not completely effected, the same treatment was for some days attended with good effects. In the island of Grenada, a negro, attached to our pioneers, received a contusion and a slight wound on the head. The warm bath and the liberal use of mercury were ordered. He continued better for some time, and I flattered myself with the hopes of another cure; but the disease gaining ground, the cold bath and tonic treatment were had recourse

to,

to, and the patient died. The next was a sailor, who, a few days before our embarkation in the *Minerva*, had been slightly wounded in the foot by a copper nail. On my first seeing him, his symptoms were slight, but were gaining ground very fast. On the 10th of December, the day after our embarkation, he had the most violent symptoms of the disease; the jaws were firmly locked, the muscles of the neck, before and behind, were strongly convulsed, and he had twitchings of the muscles of his face. He pointed to the region of the stomach, where he afterwards told me that he had intolerable pain and sickness. He was immediately put under the same treatment as was employed in the case of the serjeant, with this difference, that, instead of broth, a bath was made from fat, or what is called slush. The same success attended, but the symptoms yielded more slowly, and it was several months before he recovered.

Guinea worm makes a considerable figure in all the reports during the last six months. Having never seen or heard much of this disease, and, at a time when the regiment was overrun with it, being without medical advice and assistance, I was not a little perplexed. Latterly I flattered myself that I succeeded in treating it, and that I had made some discoveries regarding the disease; but as probably my observations are only those of others, and may even be contained in books, I shall only mention the manner in which the disease made its appearance. In September 1799, the 86th regiment relieved the 84th in the fort of Bombay, where they remained until October 1800, at which time they were relieved by the 88th regiment from Calaba, as already mentioned. The 86th regiment was free from the disease on coming into the fort, and continued to till the setting in of the monsoon of 1800. The King's barracks in the fort are situated close to the Bazar, where, at the beginning of the monsoon, it was observed, Guinea worm prevailed very generally among the natives. In the course of the monsoon, 200 cases of Guinea worm appeared in the 86th regiment. The 88th regiment, from the time of their arrival in June 1799 till October 1800, were quartered at Calaba. In all this period they never had but one case of Guinea worm, and this happened in the end of September, and in a subject debilitated from hepatitis and dysentery. None appeared in October; but, in that part of November which immediately preceded our embarkation, three cases appeared. During the voyage to Ceylon six occurred, and all remarked, that the case in the 86th regiment preceded these. The table shows the progress of the disorder thereafter; and it will be observed how very rapidly they increased on shipboard. The officers took notice that it prevailed most in particular parts of the ship,

2

and

and more in one company than in another. This so much struck the commanding officer, that the sick were separated from the found. The men with Guinea worm were kept on the orlop, and the others on the gun-deck. Whether from this precaution, or whether the disease had by this time run its course, after pervading three-fourths of the regiment, we observed a gradual decrease, as will appear by the table, after this period. One circumstance was too remarkable to escape the observation of any one on board. In the detachment of the Company's artillery with us, not a single case appeared, although they ate the same provisions, drank the same water, and, in every other circumstance, were as the men of the 86th and 88th regiments; but they were always kept separate, and, during the whole voyage, were accommodated apart on the gun-deck. A good deal of attention was paid to this disease in all its stages, and several experiments were made on the worm, which will be better detailed hereafter. After using a variety of articles, and making them enter the limbs by absorption, I think I have succeeded in killing the worm by rubbing in unctuous substances, particularly strong mercurial ointment. Passing an electrical shock through the part had no visible effect.

The ophthalmia which occurred was very severe, and required scarification; and the antiphlogistic regimen to its fullest extent. I heard of a species of ophthalmia symptomatic of hepatitis; an instance of which occurred in an officer, which resisted all the common means, until his mouth became affected with calomel.

In a case of varix of the saphena, the operation recommended by Mr Everard Home was performed, and a ligature passed round the vein, four inches above the knee; but a cure was not effected. The man was tall, above 50 years old, and the disease of many years standing.

Two instances of suspended animation occurred. In one of them, a soldier of the 86th regiment, who had remained about half an hour in the ditch of the fort, we failed. The other, who had been only a few minutes under water, Captain Trotter, recovered, by putting in practice some of the means recommended by the Humane Society.

Dissection was performed, and the appearances after death noted, in eighteen cases, and minute accounts are preserved. The bodies were inspected from four to 12 hours after death, unless in one instance, where it was not done until after 18 hours. In the 18, fix had an aqueous effusion in the thorax and abdomen, resembling serum, of various colours, and coagulated by heat as far as was tried. Hydropic symptoms were only discovered

covered in one instance before death, but in this the quantity of effused fluid was the most considerable, amounting to five pints. In one case, upwards of a quart of thick pus was found on the surface of the viscera of the abdomen.

The omentum in the greater part was found wasted. In two of them it had a macerated glairy appearance, which might arise from the fluid in which it was immersed. In one case, which terminated very rapidly, there were in both omenta all the appearances of inflammation, and the great omentum seemed to be the principal seat of disease. In another, appearances showed that inflammation had existed; it extended to the boundary of the pelvis to which this viscus was strongly attached; and, in some places, it so girt the intestines, as to have the effect of a ligature on them.

In about one half of the cases, disease had reached the stomach. In the recent ones, almost all the vessels of the villous coat, and near the two orifices, were much distended with blood. The quantity of bile which it sometimes contained was considerable. Our early inspections, perhaps, prevented us from observing, in any instance, the effects of the action of the gastric juice on the stomach. In all the liver cases, the adhesions between the liver and stomach were firm and extensive.

The intestines were more generally diseased than any of the other viscera. In all but three we met with morbid appearances. The large intestines appeared to be the principal seat of the disease. The only marks of disease observed in the small were inflamed spots, contractions of their diameter, thickening of their coats, enlargements of the valvuli conniventes, and intussusceptions, probably all of them the effects of previous inflammation. The cecum and its appendix, in some cases, were the most diseased. In the cecum of one man we found several detached yellow lumps, and nine undissolved mercurial pills, little changed. The appendix was unusually large, and contained yellow matter. In most cases, however, the rectum, and particularly its extremity, suffered most. In one instance, so diseased was this gut, that, through the greater part of its extent, nothing remained but its peritoneal coat. Large ulcers near the sphincter ani were a common appearance. In seven cases the cecum, colon, and rectum, were gangrenous. In one instance, the cecum was about the usual size of an empty stomach; and the internal surface of the rectum had the appearance of a foul, scorbutic ulcer. The colon was less frequently diseased at its two extremities than along and about the centre of the arch.

The mesentery was not so frequently diseased as we were led to expect. In only ten cases, unusual morbid appearances existed.

ed. In one the mesenteric glands were soft, and the cellular membrane tended to a state of putrefaction. In three there were marks of inflammation present; the glands were enlarged, but not indurated; and the blood-vessels were turgid. In the remainder the glands were hard to the feel, but did not amount to what is denominated scirrhus. In one of the cases above alluded to, the mesocolon also was gritty, thickened, and unusually loaded with fat.

In what proportion of cases the liver was diseased, it is not easy to say. If we rank those cases where the liver was of a colour different from the natural, or where there were variegated spots on it, among the diseased liver complaints, we shall find but few exempt from the distinction. Only four of the cases inspected would fall under the description of sound. In two we found abscesses in the right and left lobes. In one there were small cysts, containing pus in all the lobes. In three the vessels were enlarged, the liver of an increased size, with marks of previous inflammation. In one there were abscesses in the right lobe and lobulus spigelii. In another the abscess was in the lower extremity of the right lobe, including the fissure, and erosion there had proceeded so far that it must have soon made its way through the coats of the subjacent great blood-vessels. In one case, the liver was of rather a darker colour than the spleen. In another, it was of a bright cast-iron colour. The liver was also found very small in two instances; in one of which it did not exceed half the natural size, and was harder than natural, but without the gritty feel of scirrhus. In nearly all the other cases, the liver was larger than the usual size. It sometimes filled both hypochondria, compressing the stomach and spleen, and touching the ribs of the left side. The weight was not always proportioned to the enlargement. The liver sometimes had a soft feel. In one case, however, where the enlargement was not so considerable as in many others, it felt very firm, and weighed five pounds. Here there were marks of inflammation on all the inferior portion of the right lobe, particularly near the portæ. In a case of long standing, there seemed to be more disease than in any other: the pori bilarii were full of a matter of a consistence between that of serum and pus. Was this a morbid secretion? We found adhesion between the liver and peritonæum in eight cases; but there was an external prominence in only three cases. In one of these an incision was made between the 7th and 8th ribs; but the case proved unsuccessful. In none of the cases did we find a communication between the liver and the lungs. Of the four cases where no marks of diseased liver could be seen, two were cases of fever; one of scurvy, who had laboured lat-

terly

terly under every symptom of hepatitis; and the fourth had, for four months before his death, every symptom of the disease.

There was in general little disease either in the gall-bladder or biliary ducts. In ten cases the gall-bladder was found distended. In one the ductus communis was impervious. In none of the cases did we find a calculus. In another, though the vesica fellea was not much distended, there were marks of inflammation; the vessels of the external coat were turgid, and there was an intimate adhesion to the stomach, and the gall-bladder contained a heterogeneous fluid. In the ten cases mentioned, the gall-bladder contained from two to four ounces of bile of different colours, consistence, and probably of different qualities. It would have been agreeable to have observed this, and to have compared it with sound bile.

The spleen had seldom the marks of disease. In the consistence, colour, and weight, there was a considerable variety. In one it was very soft, and about two inches of its right extremity were eroded. In another it was inflamed in all its dimensions, and weighed very nearly 12 ounces. In two instances it was found very small. In different subjects there was a considerable variety in the colour, consistence, and dimensions of the spleen, but less of what we could discover to be disease, than in any of the viscera already taken notice of. In one it measured more than six times the natural size, and the left extremity was destroyed by the matter which floated in the abdomen. It was large, and its vessels distended, in another; and, in a third, it was enveloped in glairy matter.

We found very little change in the urinary organs: from proximity the kidneys were sometimes affected, and there were adhesions to the colon and mesentery. In one case we found watery vesications on their surface.

The morbid appearances in the thorax were confined almost exclusively to the lungs and pleura. No case was free from adhesions. In many cases were found polypi in the cavities of the heart. In one instance, the upper edge of the right lobe of the lungs contained a vomica, in which was about an ounce and a half of whey-coloured serum. The contiguous portion of the pleura was eroded. The right lobe, in general, felt hard, and sometimes tuberculous. In one instance, the right lobe adhered very extensively and firmly to the pleura and diaphragm. In one of the scorbutic cases, the blood in the heart was very dark and fluid. In the right ventricle was found a portion of coagulable lymph branching from it to the pulmonary artery.

In one case we found a small lumbricus in the colon, and, in another, a live worm, of the same species in the duodenum.

Five

Five small worms were found in the cæcum of another, of a description nearer to that of lumbricus than any other worm, but not so broad, and only two inches in length.

In three cases we found intussusceptions in the ileum.

In the scorbutic case, above referred to, we found, on dissecting the teguments and fascia of the right thigh, the sartorius muscle black and mortified for several inches above its insertion into the tibia. The lower end of the vastus internus, and a considerable portion of the neighbouring cellular membrane, had the same appearance. What was particularly remarkable is, that there was hardly any external mark of such extensive disease except a slight discolouration. The body was inspected seven hours after death.

ON

THE USE OF CITRIC ACID

IN

THE ROYAL NAVY.

8
A
L E T T E R

TO

THE RIGHT HONOURABLE
LORD MELVILLE,
FIRST LORD OF THE ADMIRALTY, &c. &c.

ON

The Use of Citric Acid

THE ROYAL NAVY.

BY JOHN HARNESS, ESQ. M.D.
Medical Commissioner of His Majesty's Navy.

LONDON:

PRINTED FOR THE AUTHOR,
BY C. WOOD, POPPIN'S COURT, FLEET STREET.
1815.

LETTER
THE RIGHT HONOURABLE
LORD MELVILLE

With the Hon. Mr. Peel

on the State of the Navy

BY JOHN HARRIS, ESQ. M.P.

LONDON:
PRINTED FOR THE AUTHOR
BY C. WOOD, 10, ABchurch Lane, 1817.

LETTER,

&c. &c. &c.

MY LORD;

IN addressing your Lordship, as the head of the department of government to which the immediate superintendence of every object connected with the naval branch of the public service has been confided, I feel assured of your attention to the following observations; for I believe it will be generally acknowledged, that few objects are of higher interest to a mari-

time state than the means of preserving the health of it's seamen. From the nature of their diet, the necessity for crowding numbers into a confined space, and other adventitious circumstances of a sea life, seamen are peculiarly liable to disease; and it is painful to contemplate the ravages by which, at different periods of our naval history, the crews of our ships of war have been wasted, and our best planned enterprises made of no avail, by this fatal and once common cause of failure. In the catalogue of disorders, by which our ships have at times been converted into floating hospitals, none was ever more direful in it's effects, or more extensive in it's mischief, than the scurvy.

When I first entered the service, in 1776, this dreadful disease was generally prevalent in our fleets, and my attention was early directed to the means of opposing it's ravages with effect. I had the opportunity, about this time, while assistant surgeon in the Naval Hospital at Antigua, of remarking the diseases of the inhabitants of the island; and, on applying myself, on my return to England, to the study of Dr. Priestley's and the honourable Mr. Cavendish's philosophical experiments on air, it occurred to me, that the thickening of the ligaments and integuments of the joints of the hands and feet, symptoms almost universal amongst the European inhabitants of the West Indies, and frequently in so great a degree

as to produce a perfect anchilosis of those parts, were results of a superoxygenated system, and originated in their indulgence in the use of lime or lemon juice, with which their common beverage was ever highly acidulated. Contrasting, therefore, these effects with the opposite symptoms of complaints of a putrescent nature, incident to seamen, I was led to the inference, that their diseases were induced by the inspiration of air deprived of it's vivifying principle, the debilitating effects of which can be vouched by every person, who may have visited or inhabited the between decks of a man of war. Every practitioner of observation is aware, that the blood of patients, confined to the inhalation of air deprived of it's proper pro-

portion of oxygen, is of a dark grumous appearance, of a quality not possessing the power of imparting the necessary continuity either to the soft or more solid parts of our frame, and, consequently, incapable of affording due nutriment to the general system. Hence, with patients labouring under this scorbutic diathesis, I have found it necessary, in my practice as a naval surgeon, to perform a second operation on their limbs; the coats of the arteries being nearly in a gelatinous state, and incapable of sustaining the pressure of a ligature: a fact, which, although I do not recollect to have seen it noticed by any author, who has written on the scurvy, must doubtless have frequently occurred to the observation of many naval practitioners

besides myself. It became a *desideratum*, therefore, to discover the means of counteracting this tendency to putrescency, and these, from the observations before stated, I had not a doubt would be found in the liberal use of citric acid.

On the breaking out of the late war, in 1793, I accompanied my lord Hood, to the Mediterranean, as physician to the fleet; and scarcely had our operations commenced, by the blockade of Toulon, before the scurvy made it's appearance, and threatened, by it's rapid effects on the crews of a newly manned fleet, to compel the abandonment of this important measure. At this juncture I had the opportunity of ascertaining, practically, the ad-

vantage of my theory. Lemons were, at my request, copiously issued to the ships' companies of the fleet; and the incipient disease, which had been the cause of so much just alarm, at once disappeared. This was in the summer of 1793. The issue of lemon juice, sanctioned by this successful result, has, from this period, become progressively general; and, from the year 1796, it has been regularly supplied, by the sick and wounded board, to all our ships. Of this board I was appointed a commissioner in January 1800, and when the superintendence of the medical department was transferred, in January, 1806, to the transport board, I had the honour to receive the appointment of medical commissioner. Towards the close of that, and early in the following year,

the expedition was preparing, under general Whitelocke, against South America. Influenced by the conviction, that the system, which was operating with so much success in the navy, might be extended to these troops with an equally beneficial result, I suggested to the board, of which I was now a member, that an adequate quantity of lemon juice and sugar should be supplied to the transports, to admit of the soldiers receiving a daily allowance, during the long voyage on which they were about to proceed. My suggestion was adopted, and instructions were given, that the issue of these articles should commence in three weeks from the sailing of the transports. When the length of the voyage, and the number of men embarked, exceeding ten thousand, are taken into

consideration, with the state of almost perfect health in which they were disembarked, being nearly to a man fit for immediate service, the effects of the administration of citric acid will appear in a striking point of view. But, perhaps, there is not any one circumstance, which so strongly evinces the benefit of the system, as the reappearance of scurvy in the few instances in which the issue of lemon juice has, from any cause, been omitted.

Thus, in the year 1807, when, from an erroneous impression that the use of it was unnecessary where fresh meat could be obtained, some of his majesty's ships did not receive the usual allowance, the result of the omission was a collapsed state

of the vessels, paleness of countenance, progressive emaciation, and general debility of the crews. Recently, too, on the American station, the occasional want of a regular supply was attended with equally serious consequences to the health of the fleet, until a sufficient quantity for the use of the ships' companies was obtained.

The gradual diminution of disease in the navy, as the necessary consequence of the use of lemon juice, aided, unquestionably, by a generally improved system of treatment, is manifested by a statement, which I now give from official returns, of the numbers of seamen discharged to the hospitals at different and equal periods of war, ending 1783, 1798, 1805, and 1810.

An Account showing the number of Seamen and Marines annually voted by Parliament in four distinct and equal portions of War, with the number sent to Hospital Ships on the Home Stations during those Periods; viz.

PERIOD.	YEARS.	NUMBER OF SEAMEN AND MARINES		ABOUT
		VOTED BY PARLIAMENT.	SENT TO HOSPITALS.	
First	1779	70,000	24,226	
	1780	85,000	32,121	
	1781	90,000	23,812	
	1782	100,000	22,909	
	1783	110,000	15,577	
		455,000	116,645	1 in 4
Second	1794	85,000	19,248	
	1795	100,000	20,579	
	1796	110,000	16,860	
	1797	120,000	20,544	
	1798	120,000	15,713	
		535,000	92,944	1 in 6
Third	1799	120,000	14,608	
	1800	111,538	17,747	
	1801	131,538	15,082	
	1804	100,000	7,650	
	1805	120,000	8,083	
		583,076	63,170	1 in 9
Fourth	1806	120,000	7,602	
	1807	130,000	6,585	
	1808	130,000	7,630	
	1809	130,000	7,971	
	1810	145,000	9,965	
		655,000	39,765	1 in 16½

The result is most satisfactory, and establishes beyond a doubt, that our ships' companies are become more healthy than the same number of men would be on shore; and, in dwelling on this important fact, let it be remembered, that it is in evidence before the house of commons, that, in the seven years war, ending in 1762, no less a number of seamen than 130,000 had died of disease, and that the complaints of two thirds of those arose from putrescency, whereas now, the scurvy may be said to exist only in the painful recollections of those, who were once witnesses of it's fatal devastation. It is not too much, therefore, to assume, that, by the introduction of a system, to which, I trust, it is not presumption in me to assert, I have been mainly instrumental,

thousands of valuable lives, and an incalculable expense of money, have been saved to the country; and, in proportion as the success, which has made our naval power paramount, has in a great measure depended on the ability of our fleets to keep the sea for a duration of time, which was heretofore considered impossible, the measures by which this has been rendered practicable assume a character of even higher importance, than if viewed simply with reference to the value of the lives which have been saved to the state.

I must acknowledge, my Lord, that, in pressing this subject on your Lordship's notice, my chief motive has been to make known the part I have taken in introducing a system of which the benefits have

been so many and so important. Whether it may be thought such as to merit the reward of my country is not, of course, for me to anticipate; but I cannot, in any case, forego that reward, which I most highly prize, the consciousness of having been a chief instrument, under Providence, of rescuing numbers of the most useful members of the state from the effects of a disease, of which the ravages were heretofore so extensively fatal.

I have the honour to be,

My Lord,

Your Lordship's most obedient

humble Servant,

JOHN HARNESS, M. D.

Medical Commissioner of His Majesty's Navy.

CHARLES WOOD, Printer,
Poppin's Court, Fleet Street, London.

TO
JAMES M'GRIGOR, Esq. M. D. F. R. S. E.
FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS,
EDINBURGH;
INSPECTOR OF ARMY HOSPITALS;
AND
PRINCIPAL MEDICAL OFFICER WITH LORD WELLINGTON'S
ARMY.

MY DEAR SIR,

The highly distinguished situation you now hold, enables you more fully than any other to appreciate the following Remarks.

I submit them with pleasure to your consideration, as I am satisfied they will receive a candid investigation; and as it affords me an opportunity of expressing my esteem. Believe me,

MY DEAR SIR,

Sincerely and respectfully your's,

GIBRALTAR,
1st January, 1812.

W. W. FRASER.

9

AN
ESSAY
ON
THE SHOULDER-JOINT
Operation;

PRINCIPALLY DEDUCED FROM
ANATOMICAL OBSERVATION

BY
W. W. FRASER,
SURGEON MAJOR TO THE GARRISON OF GIBRALTAR.

London:

PRINTED FOR JOHN CALLOW, MEDICAL BOOKSELLER,
CROWN COURT, PRINCES STREET, SOHO;
BY SMITH AND DART, QUEEN STREET, SEVEN DIALS.

1813.

Price Two Shillings.

AN
ESSAY

ON
THE SHOULDER-JOINT
OPERATION.

I SEIZE the hasty intervals afforded by a very active situation, to connect such sentiments on a serious professional point, as presented themselves to my mind, at the hour of operation, and of the correctness of which, I am more impressed by farther consideration.

The duties which the Army Surgeon is called upon to perform are very numerous, often extra-professional; their interruptions, the instability of situation, and want of books of reference, present, innumerable obstacles to research. These may in some degree pal-

liate, if the observations I am about to offer on a subject, in itself somewhat rare, appear crude or trite, or if the opinions I venture seem more the untenable speculations of a theorist, than the result of deliberation, and careful anatomical investigation; but even these imputations I will hazard, as the question is simple; and as it is purely practical, if it adds an iota to use, I shall be satisfied. I confess it would have been my wish, before my notes assumed their present shape, that actual practice had confirmed or negatived my ideas; but the Shoulder-joint Operation occurs so seldom, that in the usual routine it may not be met with for years. I have therefore less hesitation in submitting my views to the consideration of others.

The extirpation of the arm bone from its connections with the scapula and clavicle, however much it may be decried, is often left as the practitioner's dernier ressort, and which, notwithstanding every objection, he must occasionally perform; it therefore becomes a

truly interesting object to weigh well the various modes that have been proposed, and are now practised, especially as it not unfrequently happens that the surgeon has never witnessed any of them, until he is called upon to act. But it is not my intention to enter into the unprofitable and possibly unentertaining pursuit, of tracing this subject through the different authors who have written on it, though it would be, by no means, a tedious undertaking.

REFLECTING on the excision of the Humerus, we consider an operation, which from the extent of surface exposed, the nature and value of the parts subjected to it, their proximity to the great vital organ, the danger of the patient, and the knowledge which the operator ought to possess, must assuredly be ranked as one of the first in our art. The necessity of it has been long admitted, yet it

is even now gaining ground, rather by its own indispensability, than by the warmth of any advocate, if we except Bromfield. It has silently crept forward, and when we find any measure thus gradually arising into common use by its own merit, and without the preponderating authority of great names, we ought to feel more inclined to give it an approving suffrage. Of late years, most particularly, has this one been tacitly elevated.

Still, when our assistance is required, we can only consult the less scientific methods of the elder surgeons, the brief suggestions of modern authors, or depend entirely on our own judgment, and what knowledge we may have acquired by oral communications.

Practitioners in the Navy and Army, very frequently meet cases requiring the extirpation of the humerus from its socket; but the nature of their service, prevents them from communicating the issue to the public. Nevertheless, reports are rapidly handed from one to another with a freedom of remark, and a

carelessness of criticism, that is to a certain degree beneficial. From this respectable source, in which we view the result of positive experience, and from the directions of surgical professors, I intend to enumerate the steps of the operation as it is now generally performed in the Camp or Naval Hospital; but from a conviction that a far superior mode was originally adopted, I shall contrast the methods, making a few farther observations, which may be judged worthy of attention.

AMPUTATIONS at the smaller articulations had long been familiar, when the first description of that for the excision of the humerus appeared in the French authors: Paré took off the cubit from the elbow joint, "drying up the sanies, and delighting his patients with the grateful titulations of burning irons;" and Le Dran imitated him

at the shoulder, "successfully too;" all he dreaded was the instant death of his patient by hæmorrhage, and this fear continued to prevail till the time of Bromfield.

Sharp, who about fifty or sixty years ago, introduced the excision of the humerus into Britain, directs our commencing with securing the artery; and proceeding to the dislocation of the bone, he advises us to be careful in beginning to divide the capsular ligament near the axilla, lest the processus acromii and coracoides "embarrass, if not baffle the operation." After stating the necessity of it in the armies, he says, he has known it done, "at least from analogy it may be effected." Still, from the very unfinished detail he gives of it, and from his asserting that the processes might "baffle," it is evident he was little acquainted with it; in fact, he only remarks that, he believes such a thing is practicable with safety. He tells us, surgeons in his day, feared the immediate death of their patients by hæmorrhage; but, his method of avoiding

this issue will scarcely be attempted, even by those who prefer taking up the vessel before they proceed further. The space between the head of the humerus and the acromion, is distinctly to be felt; it is ample, and can never be mistaken with ordinary knowledge of the anatomy of the parts.

Bromfield, about fifteen years after Sharp, in a fuller detail of the operation, of which he is a fortunate supporter, states, that until a short time previous, caries in the articulation had been considered incurable, and the sufferers were permitted to sink under their misery. He also gives it as his opinion, that neither Sharp nor Heister had ever performed it, and in the hands of the army surgeons, it had universally proved unsuccessful. Though not much encouraged at the time, by these observations, he was afterwards led into an operation approximating to the excision of the humerus; this case proved eventually fatal, but the circumstances of it were such

as to make him wait, confidently, for an opportunity of perfecting the extirpation.

An old woman was brought into St. George's Hospital with a fracture of the humerus near its middle, attended with a laceration of the blood vessels, which on her admission was not discovered; the ends of the bone were applied, and at the usual time, the bandages being removed, it was found that no callus had formed: a roller was put on lightly, but the swelling and tension increasing, the limb was poulticed, and a few days thereafter, Bromfield thought he distinguished fluctuation. With the consent of the "gentlemen present," he made an incision through the deltoid muscle, when a torrent of blood issued out so fast, that the nature of the tumour was instantly evident, and amputation was considered the only chance of saving the patient's life. Accordingly, having compressed the vessels in the axilla, and secured them, he divided the soft parts, and the arm came away, the extravasation of blood having

prevented any osseous union. Every thing went on well, till, unfortunately, the patient, fourteen days after the operation, was seized with putrid fever, rife in the Hospital, of which she died. The head of the bone was found sound within its capsule, no fluid having penetrated that ligament: this case paved the way in Bromfield's mind, for the attempt at the complete excision of the humerus, and assured him that it was not attended by those sad consequences which had been hitherto pictured; he became readily convinced that the management of the artery was not so difficult a matter. That fear overcome, the other parts appeared comparatively light. By this circumstance, he relieved the operators from the dread of fatal bleeding; and the terror of the instant death of the patient, no longer haunted the imagination. Still, he continues, "there is not an operation
" so disagreeable to the surgeon; it is tedious
" and difficult to him, and more painful to
" the patient than other amputations, as the

"nerves are not compressed." He then enters on a prolix anatomical description of the parts, and after criticising the *modus operandi* of others, he proceeds to give his own.

He prefers the patient being placed on his side, and also commanding the subclavian artery, as it passes out from between the scaleni muscles; justly remarking, that this pressure is preferable to any tourniquet that can be described. He commences with a semi-circular incision, dividing the integuments and muscles from above the insertion of the pectoralis major in the humerus, obliquely downwards, and backwards to the insertion of the deltoid; he then turns his knife upwards and backwards to the folding of the skin in the axilla; he next makes a perpendicular incision to the bone, through the deltoid muscle, until it meets his first; thus forming a double lambeau, he dissects off the inner flap as high as possible, and cutting through the tendon of the pectoralis close to the humerus; using his finger as a director. Should the vessels, by

this means, not be sufficiently exposed, he divides the outer head of the biceps; then with an instrument, similar to a blunt needle fixed in a handle, he passes a double ligature under the artery, and ties it first about two inches below the head of the humerus, securing it with the surgeon's knot; half an inch lower, he ties it again; and beneath this last ligature, at the same interval, he divides the artery. He pursues the like steps with the vein. An assistant drawing the vessels out of the way, he cuts the nerves somewhat higher than the blood vessels, and this he does, from having witnessed great distress produced by their not being made equal with the interior of the wound.

He next directs his attention to the flap, towards the back of the shoulder, and having exposed the joint, he perforates the ligaments superiorly and laterally, thrusting the bone from the socket; he then separates the remainder of the connections, and finishes by making a second semi-circular incision, com-

mening where his first had ended, carried so as to meet it again on the outer part of the arm, the vessels being still carefully guarded by an assistant. He passes three flat strong ligatures through the flaps, so as to form an interrupted suture. If the acetabulum appeared sound, he pared off the cartilage, and applied dry lint to the bone, letting it remain there until it dropt off. This application, he remarks, will likewise answer to forward exfoliation, should the bones be diseased.

Bromfield appears to have been, in a great degree, casually drawn towards the operation, by the facility with which he restrained hæmorrhage in the cases cited above; and his next object was, to procure granulations to fill up the cavity from the bottom. All idea of union by the first intention, he treats as theoretical, and proceeds, so as to be able, most readily, to get at the scraped acetabulum, and the hard dossils which he crammed on it. He is fully aware of the difficulty of placing the inner surface of the deltoid muscle in con-

tact with a "bleeding part:" he could not fail to observe how it was thrown from the interior part of the wound; and thence argues strenuously in favor of the opening which he leaves.

The perpendicular incision of this author, is improved by Mr. Charles Bell, who has rounded the two flaps, convexing them towards each other, by which means a very neat surface is left, and some degree of pain saved.

Charles Bell recommends the patient being seated on a chair, and an instrument, like a boot-hook, being used to compress the sub-clavian artery, on which, he says, you are not entirely to depend, a second assistant is to grasp the axillary cord, and to hold the vessel in readiness for the "needle." The convexing flaps being formed, the surgeon makes an incision through the capsule and long head of the biceps; the assistant then pushes the arm bone out of the socket; and the operator carrying the scalpel, his only instrument, close to the humerus, divides the

artery, which the assistant, who held the axillary plexus, then presents, that it may be secured by means of the *needle*, having first detached it slightly from the neighbouring nerves; cutting through the remaining skin, the arm comes away.

These appear to me, the most striking of the opinions of those who have written in favor of the double-flap and perpendicular incision. Garangeot however, proposed to divide the deltoid muscle transversely, forming two flaps, one from the upper end of that muscle, about four fingers breadths lower than the acromion, and the second, from the axillary integuments. The upper flap of Garangeot, De la Faye lengthened to the full extent of the deltoid muscle; the French army surgeons, most of our own operators, and several of the popular teachers, make this deltoid flap the basis of their methods.

In opposition to these respectable modern authorities, it may appear presumptuous to assert, that any other mode will be found

preferable; but as high names may occasionally give weight to proceedings not altogether tolerable, the duty of investigation, assuredly becomes paramount. In attempting this, I feel confident in the candid criticism of those who are best qualified to decide, and for whose opinions I entertain the greatest deference.

With respect to the preliminary step of securing the artery, it has so long been deprecated as an act of cruel and unnecessary timidity, that it would appear at present almost supererogatory to insist on its being laid aside. From my own experience I can assert, that it may dispensed with, and the communications I have had with several others, fully confirm the opinion. I have met with those who have proceeded with this false precaution once, but never with one who did not declare he considered it useless at best.

It is a practice that savours too much of those times in surgery, when the operator was afraid to hazard the slightest incision, and of those ideas which filled the mind of all who attempted the excision of the humerus before Bromfield: I understand, however, that the common advice at several most respectable surgical classes, is to commence with this ideal measure of security; and the mere word *caution*, is so universally imposing, that in this instance, it is absolutely incumbent, not only to point out the inutility and cruelty of it, but farther to shew in how much it is to be considered detrimental to ulterior success. The artery by such a step is detached from its connections, and is more exposed to corrosive sanies, which often affects it. Incisions are made into parts which might otherwise have been untouched; channels may thus be formed which will degenerate into incurable fistulae; and even after the operator has secured the artery, he is embarrassed in every movement, least by the negligence of the

of the assistant, or error in himself, he should again wound the vessel, undoing what has already cost him so much trouble, and the patient so much distress to effect. In fact, by this we add all the difficulty, pain, and hazard of the operation for brachial aneurism, to one which is in itself sufficiently harassing; and whilst we imagine we are defending ourselves against hæmorrhage, we are laying the foundations of a secondary bleeding, of which we can only dread the event. This mode is now, in Military Hospitals, generally disused; and that most commonly adopted by army and navy surgeons is, as I have before observed, founded on De La Faye's method with the deltoid flap, nearly as follows.

An incision is made down the arm bone, from about the height of the second rib, on the edge of the deltoid muscle, shaping, not the angular V of Sabatier, but the segment of a circle, or rather an ellipse, keeping the muscle as the guiding point, down to the in-

section of which into the humerus this cut is made; traversing the arm, it is thence turned upwards and backwards, over the insertion of the latissimus down towards the spine of the scapula, about two or three inches below the posterior point of the acromion. The deltoid is dissected off from the bone of the arm, and thrown back upon the shoulder; the inner surface is attached, but very slightly, to the neck of the humerus; and when the flap is raised, the head of that bone, covered by the expanded tendons of the different muscles of the joint, which appear to flatten themselves into a capsule, with a sacculus mucosus, becomes evident; and a notch-like hollow betwixt the scapula and the arm, over which this ligament floats loosely, is perceptible; into this space the instrument is thrust, and moved anteriorly, so as completely to separate the connection on that side, as well as the round head of the biceps; the knife being directed backward, an incision is perfected through another considerable portion of the

capsular membrane, and the fingers of the left hand being made to pass round the condyle into the glenoid cavity, will point out those parts of the attachment which are not destroyed. The scalpel, or an amputating knife, being now past most frequently from within outwards, the arm is completely freed: the great vessels are drawn out by the tenaculum, and included in the usual manner, as also, the articular branches; the ends of the nerves being shortened occasionally, the deltoid flap is brought down, and compresses are applied to keep the belly of that muscle as closely as possible in contact with the inner surface of the wound.

In the mode adopted by the French surgeons, I have been informed, that it is usual to pass a catlin under the fleshy belly of the deltoid muscle, and drawing the instrument downward, to form thus, the lambeau of the length that is wished.

The ligation of the axillary artery has been

of late years so frequently performed, and I may almost add, so uniformly successful, that the mere division of this vessel, considerable as it is, is no longer esteemed the great bar to the excision of the humerus. The practitioner looks to its general issue, and finding it more fatal, and more tedious in the cure, than common amputation, naturally seeks for some other cause, and generally perceives that the generation and confinement of matter, is the baneful source of the unhappy catastrophe. Sinuses are formed from the clavicle and sternum to the ileum, secondary hæmorrhage and hectic succeed, and our best hopes are too often thus eventually frustrated.

It is therefore a great desideratum, to be able, by avoiding these, so far to bring the shoulder-joint operation on a par with other amputations; possibly from the nature of articular surfaces, which are certainly less quietly disposed for the "uniting process" than other parts, this cannot be completely

effected; but, when there is no caries, nor specific lesion of the joints, I do not see why we should entirely despair of it. Bromfield deems the idea of union by the first intention perfectly visionary; and partial success having deadened the proper feelings of occasional misfortune in many since his time, we find Alanson's admirable discovery too little applied to use, in the instance now under our consideration. In the simple operation of the phalanges of the finger, we almost universally succeed by this means; and in separating the foot from the ankle, or dislocating metatarsal joints, this fatal issue, and this liability to sinus, are seldom subsequent; although at a distance so much farther from the force of the circulating power, we might perhaps as naturally expect it.

It has, nevertheless, been this chief object of "union by inosculation," which all those have had in view, who scraped the acetabulum,³ and pared away the ligaments and synovial apparatus, which it was imagined prevented,

adhesion by peculiar natural structure.* Now although I do not deny, that I consider these parts as less apt to adhere, yet I believe the principal source of the mischief, is with greater propriety attributed to a mere mechanical cause—the non-approximation of parts.

De La Faye imagined he had done much towards the improvement of this operation, when forming his flap to the full length of the deltoid muscle, he effected a depending drain for any exudations which might follow; conceiving that Garangeot's short inferior flap would act as a receiver for them. I question much, whether he has not wandered farther from the mark than even Garangeot. For although, when De La Faye had brought down his deltoid lambeau, a very neat surface was formed externally, and a speedy union

* Mr. Langstaff, of Fore Street, in the Medical Review for January 1811, relates the issue of six cases; four, wherein the glenoid cavity was not taken away, terminated in sinus; and two, where it was healed rapidly, without any fistulous or sinous discharge.

succeeded between the edges of his flap and the parts to which they were opposed; yet, he thus hermetically sealed the large cavity left beneath the acromion, whilst the deltoid was forced from the interior part of the wound.

The glenoid cavity, surgeons have been anxious to cover with substance that might adhere to it, forgetful of the large triangular space above it, in which, lymph, synovia, and oozing of blood being retained, and the absorbents at the same time unequal to take them up, these effusions become acrimonious, and the fertile source of irremediable distress. Powerful as we may find the effects of compression in many instances, allowing too for a slight tumefaction of the inner surface of the wound, and giving every credit to the absorbing vessels: still, I cannot consider these efficient to procure adhesion, nor calculated to prevent those unfortunate terminations which too commonly occur.

It not unfrequently appears that these offending humors collect, and the practitioner

is obliged to separate the recently cemented lips of the wound, and after the evacuation of the irritating matter, to replace the flap, commencing de novo; or should there be, unfortunately, any secondary hæmorrhage, he is much perplexed in fixing his finger on the aneurismal point, the seats of mischief being so various, and their range so extensive.

Farther; whoever takes the trouble of examining the cavity of the joint, after the extirpation of the humerus, will perceive, that the deltoid flap must first be doubled under the acromion, and then describe a right angle to this folding, to attach itself accurately to the parts beneath; and the compression necessary for this purpose would be such, as might produce consequences highly dangerous.*

* I do not wish to assert, that a properly graduated bandage is not the fittest application after this operation; but to consider any compression which can safely be made use of, equal to effect an exact opposition of parts, appears to me futile.

It is to be regretted that Bromfield, who mentions the want of success amongst the military practitioners of his day, did not particularise its cause. It may however in my mind, be justly referred to the reason above mentioned, collection in the joint. For he specifies, after a lapse of three weeks, as the period when the unfortunate symptoms appeared; when probably great constitutional affection having been produced, or secondary hæmorrhage having occurred, the patient was carried off.

I have little doubt, that the observance of the impossibility of keeping the flaps, approximated to the trunk, owing to the mechanical structure of the joint, which every surgeon must have noticed in dislocation of the humerus, and of which this hollow under the acromion is a principal diagnostic, led Bromfield to treat as chimerical every idea of union by the first attention, and induced him to wait for Nature's second process, stuffing the acetabulum with hard dossils;

still his success, it might have been conceived, would have encouraged others to persist in his plan, even though they might dispense with some of his syndons. This consideration, and having frequently witnessed the detrimental consequences arising from De la Faye's method, would prove sufficient motives with me, to follow those measures which have been found so beneficial; and as this affords an easy opportunity of proceeding to a farther step, by means of which much, I think, may be done towards the cure by the first intention, I am confident that it ought on every possible occasion to be resorted to.

In submitting my present proposition, I own I feel considerable diffidence. Still I deem it highly culpable in any one not to circulate those ideas which may strike his imagination in practical points, however much he might feel inclined to remain silent on such as are merely theoretical, and not immediately tending to the great object of all our studies.

Having considered the want of proximity and contact of parts, as the great preventative of the desired result, by the opportunity thus afforded for collections to form, we naturally look for the reason of this last, and the application of a remedy. We observe the upper end of the deltoid muscle considerably detached from the inner surface, by the projection of the acromion; but if we remove it, the parts fall flat upon the sides of the ribs and interior of the joint; this then, it would be my object to effect whenever it is practicable.

OPERATION at the articulation of the humerus, being our "ne plus ultra," the cases where it is deemed requisite, are somewhat anomalous. Gangrene or wound, often do not leave us the choice of covering the exposed surface as we could desire, we must therefore form the flap from where we can,

only talking of option, as we do in injuries of the skull, where local affection solely directs our endeavours.

WHEN it is in our power, I conceive it would be preferable to commence the first incision about an inch above the edge of the acromion, a few lines behind its connections with the clavicle, and on coming to the edge of the scapular process, to carry it so as to describe two diverging segments down to the axilla, posteriorly and anteriorly, as represented in the sketch given by Mr. Charles Bell. In whatever method we determine upon, the first stroke ought to be only through the skin, and cellular membrane, otherwise their retraction leaves a gaping wound, with protruding muscular substance, in the ulterior part of our proceedings; on this account I should prefer (even if performing the deltoid flap) using the scalpel to the

catlin. The second incision must be through the deltoid muscle down to the arm bone, following the line of, sloping under, and keeping close to the incised tegument. We then proceed to dissect off the soft parts, commencing posteriorly, inclosing every vessel as it bleeds; for in no operation is it so requisite, by every possible means, to guard against exudation. The flaps being gently drawn asunder, the scalpel is to be passed into the cavity of the joint at its superior part, and the capsule divided as fully as possible, before we attempt to displace the bone. The fingers of the operator's left hand now moving into the articulation, and any part of the ligament still untouched (as generally happens to a portion at the lower edge of the glenoid cavity) being ascertained and separated with the same instrument, the head of the bone is thus completely excised. We then raise the humerus to nearly a right angle with the trunk, and by a sweep of the amputating knife from without inwards, make

an incision through the soft parts, dividing the axillary plexus, and disengaging the arm. The open mouth of the great artery is instantly evident at the lower and anterior angle of the exposed surface; it ought to be drawn out with the fingers, tenaculum, or forceps, and included in a ligature of three or four threads, tied with the common knot; the vein also occasionally may require ligation. The shining unretracting ends of the nerves are to be shortened as closely as possible to the lower extremity of the wound, and the assistant desisting from compression, every vessel is to be regularly attended to, carefully observing, that no doubling or folding of the flaps, can act as a tourniquet upon their trunks, or in any way retard the sanguinary impetus.

I should then recommend, proceeding still one step farther, to feel for the connection of the clavicle with the scapula; it is instantly distinguishable, its motion is evident in the state in which the joint now is. I then

propose tracing a line with the scalpel perfectly clear of this synarthrosis, inclining from, but nearly parallel to the edge of the acromion, and with a short metacarpel saw, or such a one as mentioned by Sculletus, and re-introduced by Mr. Hey, we can remove about two inches in length, and six or eight lines in breadth, of irregularly shaped projecting bone; though the size of this will vary in different subjects. The axillary artery being now defended by the finger of the operator, the coracoid process is to be cleared, and a portion of it sawed off, which, with the ligamentum triangulare magnum, will level a space not much less than that occupied by the portion of acromion. Should the point of this process prove sharp, it can easily be rounded.

Thus large projection, the provision of nature against accident, now no longer requi-

site, being removed with any loosely attached fragments of capsule, cartilage, or tendon, a much flatter surface is presented to the flaps, and union is at least not prevented; the parts are neatly brought together, and if the adhesion does not prove complete, the cavity to be filled up by granulation, is not so great. Little space is left for the lodgment of matter, and should collections unhappily be formed, the central and deepest part of the wound is that most easily got at, and liberated from any irritating cause, at the same time that an equally depending drain is left for accumulating fluid, as in the mode with the *deltoid* incision.

The flaps being wiped and cleared from coagula, are to be closely kept together with sticking plaster and smooth compresses, and the ligatures hanging out from the orifice according to their relative situations, the patient is to be treated as is usual after operations of such magnitude.

HAVING witnessed the distressing and ultimately fatal effects of collections of matter in the articulation, when the excision has been performed after De la Faye's plan under favourable circumstances, my mind was naturally turned to any expedient that might be devised, to avoid a similar occurrence. Latterly I have had no opportunity of putting my project to the test on the living body, which, from a thorough conviction of the principles on which I act, I should most conscientiously do. I have not however omitted demonstrating the superiority of Bromfield's method, together with the removal of the projection, &c. on the dead subject, and the point in question being so far mechanical, I do not conceive it inadmissible to derive our practice from anatomy, for, on considering attentively the vast protrusion of the deltoid, caused by the acromion and coracoid process, with their connection, the ligamentum triangulare, I feel satisfied, that much may be done by overcoming it. My opinion I some time ago

expressed to Dr. M'Gregor, who informed me that "the acromion" had been once removed "by a naval practitioner at Haslar." On farther enquiry, I was informed it had not been done with any view to a permanent chirurgical improvement, but in consequence of that process being found in a diseased state. Unfortunately, the gentleman alluded to in this case, is employed on a distant service, and I can only give an hearsay detail; of its veracity, however, there does not exist a vestige of doubt.

Moreau the elder, also, in one instance, took away a considerable portion of the upper process of the scapula and articulating surface, and both these cases terminated favourably.

I have likewise mentioned my sentiments to several highly respectable members of the profession, and I have not heard any very material objection urged against what I have just proposed. The principal argument expressed, has been the increase of torture to

the patient; but if we for a moment reflect how much we save, by not, in the first place, encircling the artery, this addition will be completely shaded in the comparison; yet this is rather an unfair way of replying. I have therefore to observe, that I shall ever consider the suggestion as deserving the most serious attention. It has always been a primary object to diminish pain, for independent of the insuperable feelings of humanity, it greatly facilitates the execution of the most harassing of our duties. In this instance, however, I think it will appear that the supposed augmentation of distress has been over-rated. The patient is not detained above a minute, at the very utmost, longer on the table. The dissection of the skin from the scapular process is perfected in a few seconds, and the bone itself is not acutely sensible; whilst this temporary increase of suffering, in the sum of so serious an operation, is amply counterbalanced by the prospect of an easier, speedier, and more certain termination: and

if it could be the great object of the practitioner, in any instance, to act with haste in preference to use; he will find that the excision of the humerus, if the minute arterial branches do not occupy much time, may be finished in three or four minutes. I have known it performed in considerably less.

It has likewise been suggested to me, that the rough points of the acromion might produce inconvenience; but the scapula does not differ in structure from other bones, and we may expect its divided edge, will adhere in a similar manner with that of the femur, or any other, when properly covered.

HAVING stated, how anomalous the cases are, which require the excision, and how often it is difficult to preserve a flap of sufficient size. I must observe, at the same time, that when the omoplate projection is sawn off, so great an extent of covering is not

required, as when the lambeau is held out by it, from the trunk.

I HAVE now to make a few cursory remarks on the Shoulder-joint Operation in general.

As far as my information and observations lead me, I find, that as usually performed, it terminates fatally in one case in six, whilst Bromfield declares he was uniformly successful.

The knowledge of the anatomy of the parts is so easily obtained, that it is by no means the difficult operation which authors represent it to be. To perform correctly the circular incision through the skin and muscles in common amputation, requires infinitely more nicety, than any part of this simple piece of dissection. It is not more painful to the patient, as the great portion of parts subjected are not more sensible than those exposed in ordinary amputations, and it is effected in as short a space of time.

With regard to the position of the patient, that must depend on circumstances; he often cannot bear the erect posture, otherwise sitting on a chair, opposite an oblique light, will be found preferable in point of convenience to the operator. The arm ought to be kept close to the trunk, until the complete division of the capsular ligament. It is almost unnecessary to observe, that absolute command of the patient must be obtained by proper assistants.

John Bell, quoting Camper, declares that entire reliance is not to be placed on pressure from above, proving an effectual preventative of axillary hæmorrhage; and recommends it from below in preference. This last method, I believe, is not generally in use, as compressing the artery with the index above the clavicle, a few folds of linen intervening, is quite enough.* Some have proposed an

* Upon this principle, a tourniquet has been invented to compress the subclavian, at the point where it is occasionally the subject of ligation, viz. at the hollow betwixt the deltoid and upper edge of the pectoralis major muscles.

instrument adapted to the shape of the collar-bone and first rib, least the hand of the assistant should become cramped. The danger of unsteadiness in the patient, may be considered as one of the strongest arguments in favor of trusting solely to manual application; it is more easily made than any other, and if the tourniquet invention was to be used, and not perfectly to answer, a fatal event would most probably ensue, before recourse could be had to the finger. The assistant is fully aware of the vitality of his object, and is accordingly, on the watch for the slightest movement, to which he readily accommodates himself. A padded key ought nevertheless to be in readiness, and may be placed below the clavicle, whilst the index is kept firmly fixed above; and finally, the grasping of the axillary cord may be found useful.

To go into any enquiry as to the mode of managing the excised arteries, would be trenching on a far wider field, than I have any intention of doing. I feel I am fully

borne out in asserting, that the tenaculum, with three or four threads, is the most proper for the axillary artery: the needle is here completely superseded in military practice; the mouth of the vessel is distinctly visible betwixt the silver looking nerves, somewhat more shrunk than their pendulous ends; it is large and gaping, and cannot be missed: the fingers or forceps are generally sufficient to draw it out. I cannot therefore conceive why we should be desired to use a needle, while it lies almost entirely imbedded among some of the largest nerves of the body.

The principal anatomical points deserving observation, I shall scarcely more than nominally recapitulate, as they occur in the steps of the operation.

1. The course of the subclavian artery immediately after it emerges from between

the scaleni muscles, to its commencement as brachial artery, observing its relative situation in the axillary plexus.

2. The two points of compression are, where the artery passes from the scaleni muscles, and in the small triangular space betwixt the deltoides and pectoralis. Should the vessel not be obliterated or obstructed, the effect of the finger is evidently manifested at the wrist. The head of the patient should be inclined towards the arm subjected.
3. The deltoid muscle.
4. The sacculus mucosus over the capsular ligament.
5. The loose capsular ligament connecting the scapula with the neck of the humerus.
6. The acromion.
7. The processus coracoides.
8. The ligamentum triangulare maximum.
9. The round tendon of the biceps flexor cubiti.

10. The head of the humerus.
 11. The accurate knowledge of all the internal parts of the joint, to be acquired by the sense of feeling.
 12. The mouth of the axillary artery and vein.
 13. The plexus of nerves.
 14. The glenoid cavity.
 15. The joint of clavicle with the scapular, the motion of which is sufficiently perceptible in the latter stages of the operation.
 16. Any ligamentous or cartilaginous filaments which are to be taken away, together with the pendulous ends of the nerves and the synovial apparatus.
 17. The number of articular arteries vary much; they are usually from three to five. Very seldom more.
-

The interfering with cartilaginous substances is daily found to lose much of that dread in which it was formerly enveloped. We have ankle and metatarsal joint operations frequently; and ever successful hip cases are related, where a great deal of the articulating surface of course remains. Still we ought to leave as little of these as we possibly can.

I had an opportunity of viewing the cavity of the shoulder joint about three or four weeks after the excision, previous to which it had been sound. I found the muscular and cellular parts firmly coalesced; but the glenoid cavity, with a portion of ligaments, had assumed a deep cup-like appearance, and no union of these had taken place. The space between the neck of the scapula and the acromion, was filled with coagula and acrimonious discharge.

We must now briefly investigate the diagnosis of cases requiring the extirpation of the humerus; and there are few questions of greater import in surgery, either, when in common with ordinary amputations, we reflect upon the great privation to which the unfortunate sufferer is to be subjected for the rest of his existence, or when, we more particularly advert to the proportionate fatality in excision hitherto. I fear much, that from this operation having been considered as a sort of *chirurgical chef d'œuvre*, the young surgeon may be tempted to achieve it more frequently than he ought. I wish, for the honor of the profession, that this may prove too uncharitable a conclusion; but if the science and practice of medicine is accused of being uncertain, and vacillating between *aranea* and *arsenic*, I am apprehensive we shall also find our own lost in extremes. We may observe timorous men agitating the most trivial use of an instrument, and

others unfeelingly anxious to perform the most dangerous and novel experiments.

From the comparative danger in the exposure of joints, the common amputation is never to be dispensed with, when it will answer our purpose. Large splinters of bone may be extracted from the joint, in cannon shot and musket wounds, and every thing may go on well. In caries, the head of the bone may be cut out entirely, and the arm prove highly useful: but these cases involve so many questions of constitutional affection, and of local injury, with every doctrine relative to diseased joint and compound fracture, that it appears almost impossible to lay down even general rules; so much must, in each individual case, depend on the natural discrimination of the practitioner.

I shall however enumerate a few of those occurrences, which renders it indispensable to remove the humerus from its arthrodia.

1. An ulcerated conical stump, with disease

of the vessels, extending so high as to preclude any other method of saving the life of the patient; or when such distress attends these symptoms, and is so long continued, that the patient is wasting of hectic, and soliciting this chance of relief.

2. Complicated fracture from cannon shot, or any other injury, accompanied with great destruction of the soft parts, especially of the artery. And when perhaps the arm is only attached by a small fragment of muscle, or totally carried away.

3. Extensive gangrene.

4. Caries, under particular limitations, and a full consideration of those cases in which the head of the bone only is diseased, and necessary to be extirpated.

Most of the accidental cases will be eminently influenced by the local circumstances of the patient: in a retreating army, as usual in other cases of compound fracture, it may be often imprudent to endeavour to save a

limb, which, under more favourable circumstances, we should have no hesitation in attempting.

ALTHOUGH I am conscious of many inevitable repetitions, which the nature of the foregoing subject may possibly excuse, I shall now shortly recapitulate the points on which I have chiefly dwelt.

We find the operation usually performed with a flap, called deltoid; its fatality *one* in *six*.

We find Bromfield proceeding with a perpendicular incision, and uniformly successful; he never attempted union by the first intention, observing the distance to which the deltoid was projected by the acromion. This objection we endeavour to overcome, and procure adhesion, or lessen the receptacle for obnoxious discharge, by taking away the protruding bone.

We compress the artery with the fingers, above the clavicle.

We do not add the operation for brachial aneurism to excision of the humerus.

It proves by no means a tedious or difficult operation, and a depending drain, communicating with the whole inner surface of the joint is left, in the manner proposed.

The articular substances are to be taken as completely as possible away, together with a portion of the processus acromii and coracoides, and their connection, the ligamentum triangulare maximum, and the whole cartilaginous surface of the glenoid cavity.

THE END.

SMITH & DAVY, Printers, 17, Queen Street, Seven Dials.

A

STATEMENT

OF

Circumstances

CONNECTED WITH

THE APOTHECARIES' ACT,

AND ITS

ADMINISTRATION.

BY GEORGE MAN BURROWS, M.D. F.L.S. &c.

—If we suffer,
Out of our easiness and childish pity
To one man's honour, this contagious sickness,
Farewell all Physic.—

SHAKESPEAR.

—Sed id pro causa apprehendi, quod contulisse
plurimum videtur. CELS.

London:

PUBLISHED

BY J. CALLOW, MEDICAL BOOKSELLER,
CROWN COURT, PRINCES STREET,

SOHO.

1817.

A STATEMENT, &c.

WHEN the fact is notorious, it were a work of supererogation to attempt proving how sedulously I have laboured, to the best of my judgment, for the interests and the improvement of that branch of the Medical Profession, termed General Practitioners; and that when fitted by suitable education and examination of their qualifications for practising, how anxious I have been to secure them, by an Act of the Legislature, the right they had acquired to public confidence.

Few, perhaps, will deny me this justice, although many may dissent from the plan adopted as being the wisest for the attainment of these objects.

In the various capacities I have had the honour to fill, it were impossible to remain wholly a stranger to the suspicions some have entertained, that the final aim of all my exertions was to exalt one class of the Profession by degrading the others; to increase the power, and aggrandize a corporate body of which I was a member; and finally to benefit my own individual interest. Had I relaxed my exertions to notice calumnies, the important end I had in view must have been sacrificed; I therefore heard, but gave no further attention than to counteract any sinister effects. Conscious in integrity, I have, through a series of years, persevered, and encountered, and overcome apparently insurmountable difficulties; and would willingly have left to the silent, but sure, operation of time my refutation.

B

But the period is arrived when silence is no longer a merit; when the exposure of the past is essential to the well-being of the future; when public considerations, equally with private, combine to prevent concealment; when, in short, it would be a crime to withhold communication.

Painful as it is to be the narrator of circumstances wherein self must always appear so prominent; yet even the dread of being considered an egotist must not deter me from performing a task, which the high obligations I owe to those who have put their trust in me demands. To the General Practitioners, who have so peculiarly distinguished me by their confidence, therefore, and to the Medical Public at large, whose interests are deeply involved in the perfect or imperfect execution of a measure intended for general benefit, explanation is due.

To have a just conception of the subject, of the conduct I have pursued, and of the reasons that determined it, it is necessary to take a long retrospect. I must trace the rise of the Associated Apothecaries and Surgeon Apothecaries, and succeeding events to the present epoch. I would be brief; but the occasion does not permit.

From an extensive and intimate acquaintance with Medical Practitioners, I had been long aware that they had more difficulties to encounter than almost any other class of persons; and I was convinced that they were principally derived, 1st, From the intrusion of persons who were never educated for the exercise of the healing art: 2. From any person having a right, to practise without control, under the denomination of Surgeon or Apothecary, and who, by arts of which gentlemen were incapable, injured the regular practitioners: 3. From the disgrace these intruders, by their conduct, brought on the character of the regularly educated and deserving practitioner: 4. From the depreciated emoluments of Apothecaries, owing to a considerable portion of their former business being engrossed by dispensing Chemists, &c.:

5. From the increase of taxes, and the expense of every article of life, drugs, horses, &c. while the means of meeting this state of things were, from the foregoing causes, particularly the 4th, annually diminishing.

All these circumstances were severely felt as early as 1794; and then induced a similar Association, of which also I was a member, but almost immediately withdrew, from a conviction of the impracticability of its views. If these causes were operating to so great a degree at that period, how much must they be augmented in the progress of the last twenty years! Medical men have had to sustain an equal proportion of the burthen of the times with the landholder, the capitalist, and the trader; but with this marked difference—the emoluments of the one have been annually decreasing, while the means of the others were ever augmenting to meet increasing expenses. Hence it was impossible to intermingle among Medical men, and not be acquainted with the difficulties so generally experienced, and with numerous cases of individual distress.

Such being the fact, any thing that suddenly added to the weight of the already too oppressive burthen would naturally excite a strong effort, either to bear or get rid of it. Thus, when a new duty on glass was proposed in 1812, which was almost equivalent to another income tax, it was deeply felt by all Apothecaries, and roused them to endeavour to remove or modify it. Accordingly, meetings for that purpose took place; and as is common, when persons having similar sentiments and pursuits, assemble, other subjects of complaint were discussed, and various means of relief were proposed. And, with this intention, an Association, consisting of Surgeon-Apothecaries and Apothecaries, the first in rank, abilities, and character, was formed. I own that I entertained much more extensive views. I conceived that if a large body of them could be brought firmly to unite, and adopt those views, that the opportunity

was highly favourable for performing an essential service to the public, and, at the same time, to the Practitioners themselves. But I was convinced that if these views were suddenly avowed, the improbability of accomplishing them might excite alarm, and prevent all further endeavours.

I therefore published, and widely circulated, "AN ADDRESS TO THE APOTHECARIES OF GREAT BRITAIN," under the signature of "PHARMACOPOLA VERUS;" which, while it regarded the primary and ostensible objects of the Association, plainly inculcated the hope that the result would lead to other and more important consequences; and that amelioration and improvement of the condition of the General Practitioner would be attempted. It produced the desired intent. At a subsequent, and very general meeting, a numerous committee was appointed to carry into effect certain resolutions, authorising an application to the existing Medical Bodies to request them to coincide in an appeal to Parliament, for legislative regulations of the practice of Surgery, Pharmaceutical-Medicine, and Midwifery.

I was chosen Chairman of these Meetings; nor did I shrink from a duty which was so entirely in unison with my inclinations. But when the General Committee met, I was conscious that talents to which I had no pretensions, and very arduous application, were requisite for him who should preside over their deliberations. Consequently I most sincerely co-operated in praying a gentleman to accept it, who from character, experience, and influence in the Society of Apothecaries, was represented to be peculiarly adapted to the office. Upon that gentleman's declining the most strenuous application, and finding that the objects of the Association were in danger by delay, I at length yielded consent to undertake it. Could I have anticipated the extent of the obligations I thus incurred, I candidly confess I should have been appalled, and must have declined the honour.

Deeply impressed with the importance of the trust, I seriously applied myself to its varied duties; and I was most ably and zealously assisted by the majority of the London Committee. Never, I am confident, did any persons attend more sincerely or disinterestedly to the objects for which they were nominated, or encounter with more perseverance, the obstacles which were presented to their accomplishment.

For two years the labours of the Committee were incessant; nor was their anxiety much diminished during a third year, when they had to co-operate with the Society of Apothecaries, to whom the soliciting and passing of a Bill through Parliament was transferred.

It were superfluous here to recapitulate the proceedings of the Committee; since from time to time they were published in the Medical Journals, in the form and to the number of Seven Reports. Justice must be done to that zeal which could induce individuals to make so large a sacrifice of time as the attendance on the Committee-Meetings occupied. There were full one hundred and thirty Meetings, each occupying several hours; but without any charge on the subscription fund, except a trifle for the hire of the room.

Those labours are now, it is to be hoped, nearly finished; their termination awaits only the fate of the Surgeons' Bill. The Committee then will, of course, submit the whole of their proceedings, and surrender to their constituents that power and that fund, which have been so long and so confidentially entrusted to their disposal.

In the conducting of the multifarious transactions in which I became engaged, I endeavoured to discharge my duty with fidelity, and had the satisfaction of feeling, that my conduct always met with the approbation of my colleagues. Experience, by degrees, inducted me into the *ordo negotii* of office, and gave me so intimate a knowledge of all the bear-

ings of the subject, that, inspired with confidence, I was soon able to execute the business with facility and greater effect. But the business of the Committee was trifling in comparison with the correspondence. The Association embraced full *three thousand* Practitioners, a part of whom formed themselves into District Committees, and embodied their observations into resolutions; and these were transmitted, either through their chairman or secretary, to me. Besides these, about fifteen hundred individuals separately addressed me; every one of whom I also answered. The correspondence with the public bodies, the reports of the Committee, the minutes of the meetings, the sketches of the clauses of the various bills, attendance on both Houses of Parliament, interviews with the members and counsel, and the arranging and directing to the Committees throughout the kingdom above *forty thousand* circulars, receipt of subscriptions, and the disbursements, all fell to my lot to manage.

This is stated, not by way of enhancing the value of my services, by an ostentatious display of the extent of them; for, had that been my object, I might, at any time, have found the means of obtruding them; but they are detailed to shew, that, having performed all these functions for several years, I consequently had become the depository of the grievances, the complaints, and the wishes expressed by the Practitioners at large; and that I had also necessarily become acquainted with the opinions of all the parties soliciting, supporting, advising, or objecting to the proposed legislative measures. Hence, both the spirit and the letter of the Act were perfectly familiar. Thus informed, I might presume upon my own opinion; and I firmly acted upon it. The consciousness of extensive knowledge of the subject ever afterwards, when the Act had passed, and became a law, determined my conduct. Hence, too, I ventured to conclude on the mode, by which its

administration would be rendered either beneficial or nugatory; and, upon this conviction, was founded the whole of my subsequent actions.

Nothing would more clearly shew the difficulties the General Committee had to contend with, than the publishing of the resolutions of the various Provincial Committees, and the sentiments expressed by individuals, who composed the Association, or who wished to associate with it, provided certain preliminary conditions were acceded to; but these, in the aggregate, would fill volumes. Indeed, it would suffice to refer only to the resolutions of the meeting of deputies, held at the Crown and Anchor Tavern, on the 23rd of March, 1813, to prove the contrariety of opinions which existed as to the nature of the provisions of such an Act as would embrace all the objects of the Association. Still, however incongruous these objects were, the Committee thought it their duty to arrange, in strict conformity with their instructions, a Bill, which, although they were unanimously of opinion, would never be entertained by Parliament; yet, not to have carried there, would have been a direct violation of the pledge given to the Association. The experiment was tried: how unsuccessfully is well known. Afterwards the Society of Apothecaries, having received the sanction of the College of Physicians, prepared a Bill; and this was submitted to a General Meeting, and, with a few alterations and additions, was adopted.

This Bill was destitute of several fundamental points, inserted in the former; but it was generally more feasible: and, although it did not meet my entire approbation, yet it was sound in principle; and, if carried into effect agreeably to its spirit, I felt convinced it must prospectively accomplish a great deal of good.

When the General Meeting, convinced that the erection of a fourth Medical Body would not be permitted, agreed to confide the soliciting and the executing of the Act to the Society of Apothecaries, I

sincerely rejoiced. Although a Member, I had never taken any part in their affairs; and, therefore, knew no reason why it should not by them, as well as by any new and untried body, be administered in a manner as conducive to the welfare of the public as to the interests of the Apothecaries at large. Therefore I most heartily co-operated with the Society, through all its stages, in procuring the passing of the Bill.

In the conferences which took place between the Committee appointed by that body for conducting the Bill, and the Committee appointed by the General Committee of the Association, I was impressed with the opinion that the Society meant to act openly and honourably; and I flattered myself, that, as the Chairman of the Society's Committee, Mr. Simons, was still a Member of the Committee of the Association, and one of its treasurers, that nothing derogatory to the responsibility attaching to these characters, would ever be attempted in the progress of our joint exertions.

It would be an untruth were I to say, that nothing occurred during the passing of the Act to induce a suspicion, that the views of those who acted for the Society were quite as liberal as professed, or that the communication with me had been as candid as it ought to have been. In fact, it was manifested just as the Bill had arrived at its last stage, that its principles had been narrowed in more than one particular which I could not approve. But there was no option. Parliament had but a few days to sit, and acquiescence with its passing in its then shape, or the loss of the Bill was the alternative. Again, the dissatisfaction raised by the Surgeons' Bill, which was just introduced, and erroneously blended with the Apothecaries, raised so many fresh obstacles, that I felt assured if not now the latter never would pass. I, therefore, preferred having the Act, with all its faults, rather than have none; and especially as I entertained a hope that whenever it was amended,

which sooner or later it must be, then there would be opportunity of correcting it.

The period had now arrived when the Members of the Court of Examiners were to be nominated. I received a summons to be sworn in as one of them. Report informed me of the names of some others; but I knew not who they all were until they assembled to take the oath of office before the Court of Assistants. They were all gentlemen whom, I was confident, were fully fitted for the office; but there were two Members of the Court of Assistants among them! The inauguration was altogether ominous. Some of the gentlemen who were summoned, were so little interested in the matter, that they did not know such an Act was in existence, till they were desired to take upon them the office of Examiner. They objected, that having never seen the Act, which, by the bye, ought certainly to have been sent with the summons, they did not know what they were called upon to undertake or be sworn to do. However, presently all were summoned before the Court, and were ranged standing in a rank. The clerk read the oath, each kissed the book, and then walked out just as wise as he entered. Not a syllable was spoken, no explanation of the nature of the functions we were called upon to exercise, no civility, no compliment; in short, the most important occurrence that ever happened within those walls, passed as a trivial and ordinary affair!

When withdrawn to another room to elect a Chairman, &c. Mr. Simons, a Member of the Court of Assistants, as well as of the New Court, placed himself in the Chair, pretty plainly indicating that that was his destined place. He was accordingly immediately and unanimously elected,—a compliment, I admit, which certainly was due to him, and could not have been dispensed with. He informed the Court, that the Court of Assistants had been pleased to appoint Mr. Watson, his son-in-law, Secretary to the Court of Examiners! To the gentleman

nominated as Secretary none could object; for one better fitted for the office, in every particular, could not have been selected; and I beg to observe, that his future conduct merited every praise. But many of the Members participated in my surprise, that an officer of such importance to their proceedings, should not have been first recommended to the Court of Examiners; for a recommendation on such an occasion would have been equivalent to, though not so offensive as, a command. However, no one was disposed to raise impediments at the threshold of their operations.

One or two other Meetings of the Court were held, to arrange future proceedings. I inquired if no Member had prepared laws for the government of the Court; but, understanding from those who had been so long aware that it was about to assemble and enter upon business, that none were digested, I suggested the necessity of a Committee being nominated to draw up a code for the approbation of the Court. This was objected to as useless, because a few very simple regulations were all that were wanted. But the majority coinciding in opinion that a Court, constituted by an Act of Parliament, should be conducted with proper decorum and form, a Committee, consisting of the Chairman, Mr. Field, and myself, were named, to prepare the rules. I drew up a code, as complete as my judgment dictated, and submitted it to my colleagues; and by them, excepting a very few emendations, it was approved; and it met with the unanimous approbation of the Court.

The delicate subject of remuneration to the Court of Examiners had never yet been hinted; but shortly the Chairman announced, that he was commissioned by the Court of Assistants to inform the Court of Examiners, what they had been pleased to consider was a proper remuneration for the services of the Examiners: *viz.* five shillings to each Member for each Certificate that was granted; and that it was intended to allow two shillings and sixpence each to the Clerk

and the Beadle of the Company for every Certificate:—the one opened the notices sent by the Candidates of their intention of being examined, and the other attended and ushered every Candidate in and out of the room! and that the remuneration to the Secretary would be in proportion to the trouble he would have in the year.

This strange association of persons, and assimilation of the services of the Court with those of the Clerk and the Beadle, was properly resented as a great indignity; and was so strongly commented upon, that it was afterwards announced that three guineas would be divided among all the Members of the Court who signed each Certificate, and the Clerk and the Beadle were kept in the back ground. The Court acquiesced; for they chiefly objected to the distribution, and not to the quantum of the remuneration.

Many of the Members could not avoid remarking at the determined course the Chairman had adopted, to make the Court feel their inferiority and subjection to the Court of Assistants; and were equally disappointed and shocked at what was passing.

From reciprocation of feeling, and from a just sense of what was due to the Public, to the Profession, to that Court, to themselves as Members of it, and to the Character of the Society itself, and without any other concert than from the expression of common feeling, a determination spontaneously arose to support a more becoming system; and to resist all attempts to reduce that Court into a mere trading Committee. To have remained quiescent, would have been a shameful dereliction of principle; to have retired, would have been to abandon a post, when, by holding it, essential service might be rendered to that cause for which many had so long and so zealously laboured. For myself, particularly honoured as I was with the confidence of so large a proportion of my brethren, to have deserted the office, would have been an absolute abandonment

of a positive obligation. I had entered upon the office with an intention to do my duty faithfully, and to the best of my judgment; I had sworn the same to the Court of Assistants; and I was resolved that the Act should not be frittered away to suit the interested purposes of any men breathing.

By way of preserving perfect harmony, however, between the two Courts, and that the proceedings might preserve that regularity which was consistent with the functions of a Court constituted by Act of Parliament, and in order that too great responsibility should not attach to any particular member by adopting verbal instead of written communications: I had introduced, as one of the rules in the Code of Laws, that all communications from the Court of Examiners to the Court of Assistants should be made in writing, and be signed by the Chairman, and that the Court of Assistants should be requested always to adhere to the same form, signed by their clerk; and as the Court of Assistants had seen and approved of the whole of these laws, this mode of communication was considered as established.

Upon the occasion of the communication by the Chairman relative to remuneration, I reminded him that it being verbal testimony only, it was contrary to the rules and could not be officially received. It was evident he was much hurt at this resistance to his being the channel of communication between the two Courts; but he could not openly resist it. The hint, however, was disregarded; and there is no memorandum upon the Minutes to this day respecting remuneration to the Court; nor have the Court any voucher, except the Chairman's word, for this provision of the Court of Assistants.

There were many strong reasons, without relation to the character of the present or any future Chairman, why a communication merely verbal between the Courts was really improper: 1. Where it was verbal no minute could be made of it; and being therefore dependent on memory, it never could become

a document for reference or precedent: 2. If the Chairman were ill, or should he not be a Member of the Court of Assistants, how was this practice to be continued? 3. Verbal communications were subject to wilful as well as accidental alteration; whence the most serious consequences might follow: 4. As the Court of Examiners were appointed to execute a very important public duty, for which they were answerable not to the Court of Assistants only, but to the laws of their country, all their proceedings must be properly minuted and registered; because they were liable to be demanded as evidence in courts of law: 5. Because nothing would tend so much to preserve a good understanding between the two Courts, as adhering to an invariable and indisputable mode of communication.

As the irregular practice of verbal communications with the Court of Assistants, through the medium of the Chairman, still however continued: by way of putting a still more decided negative upon it, on January the 4th, 1816, I made the following motion [See *Appendix*, No. I.] which was carried by a majority of one vote.

Almost immediately after the first meeting of the Court, I introduced to their consideration the many errors which the Act contained; but more particularly the *fifteenth* clause of it, by which, unintentionally, all students, who had not served a five years apprenticeship, were excluded from examination; and I urged the necessity of a legal opinion being taken, whether so cruel and retrospective an enactment could by any means be obviated.

Parliament was now about to meet, and as the defects of the Act became more glaring, and were more and more felt, I addressed the Court, pointing out the various errors of the Act, and their tendency; and concluded with moving [Nos. II. III.].

The same Members who opposed [No. I.] having declared their intention to debate these motions, a special meeting was appointed on the 15th for that

purpose: [No. II.] passed, the votes being six to five; one Member declined voting. It was thought by those who had opposed it, that [No. III.] would be carried as a matter of course, being a consequence of its precursor; but a Member who had voted for [No. II.] declaring he was inimical to [No. III.] it was therefore lost by five to six. By this singular turn, the application to the Court of Assistants was negatived; and hence that justice, which was due, in my opinion, to the Public and to the Profession, was defeated. The chief argument used by the Chairman and his party was, that it was premature, for that we were not yet acquainted with all the defects of the Act. This I considered as a subterfuge. But if the Court of Assistants had been addressed by those whom they had nominated to administer the most important part of the Act, they must in common decency have complied with the prayer of their application.

But another blunder in the Act was soon discovered, and which shewed the absolute necessity of procuring its amendment. Counsel had given an opinion that no Army or Navy Surgeon could practise as an Apothecary in any part of England and Wales, *unless he had been in practice as such prior to the 1st of August, 1815.* But this made no alteration in the disposition of the Court. There was a party in it who were determined that the Act should remain as it was, even with all its imperfections. I was one of those, weak enough to imagine, that if the Court of Assistants were made acquainted with the real state of the case, that a sense of rectitude would induce them to procure an amended Act; and especially as it appeared to me that their interest was materially concerned; for clearly a great number of Apothecaries were prevented by its defects, from applying for certificates to practise, and others set it at defiance. Although my expectation of the Court of Examiners addressing the Court of Assistants had been thwarted, yet I resolved that ignorance of existing defects in the Act

should not be pleaded by them as an excuse for not applying to Parliament to amend it; therefore, as I had been requested to commit my objections to the Act to paper, I sent [No. IV.].

No answer was returned to these observations or the letter. But, at the next Meeting of the Court of Examiners, a *written* communication, dated March 29th, was received from the Court of Assistants, desiring "that all communications respecting the Act be sent to the *revived* Committee upon the Bill," *i. e.* were to be sent to the person who had opposed and prevented any movement respecting the Act; for it was the Chairman who was *ipso facto* the *revived* Committee.

It fortunately happened that the Navy and Army Surgeons had, upon discovering the manner in which the Apothecary's Act affected them, memorialized the Secretary at War, Lord Palmerston. A communication consequently took place between Lord Palmerston and the Society, which ended by the Noble Secretary intimating that he would bring a Bill into Parliament immediately, *at the public expense*, to amend the Act as far as it affected the Medical Officers of the Army and Navy; at the same time leave was granted, that the Society might embrace that opportunity of altering and amending other parts of the Act.

It was now clear enough what were the real objections to the Society's applying to Parliament. It was announced that the object would be accomplished at the *public expense*: it instantly became, therefore, neither premature nor inexpedient. I was immediately summoned to meet the *revived* Committee; my paper of the 29th of March was produced, and every point I had stated was discussed; and some were adopted, while others upon consideration were deemed unnecessary. However, no Bill was introduced; and I found, upon inquiry of Lord Palmerston, that his intention was deferred till the present Session. The Army Medical Board had also warmly interested

themselves in the question, and had communicated with the Society upon it. At once all parties appeared satisfied. It was more than six months before I could unravel this enigma. At length, late in September, business called me into the Beadle's Office, where I found the Notice [No. V.] stuck up.

To those who read it, and advert to the circumstance that it was the Court of Examiners who particularly represented to the consideration of the Court of Assistants the unpleasant predicament of the Army and Navy Surgeons, that upon their recommendation legal advice had been taken, and that Counsel had declared that Army and Navy Surgeons could *not* be considered as practising Apothecaries, whose warrants bore date antecedent to the 1st of August, 1815; it will appear singular, on what grounds the Court of Assistants had, *upon the instant of May the 3rd*, come to a resolution diametrically opposite to that legal opinion they had received. But what will appear still more singular is, that this important resolution, which ought to have been directly communicated to the Court of Examiners, as a guide for their future conduct when Army or Navy Surgeons applied for examination, was never sent to the Court, but to the Beadle! and I verily believe, that at this moment there are many of its members who have never seen nor heard of this decided and sweeping resolve, which at once controverts the legal opinion, and settles the law. If further advice disproved the first, such counter-opinion ought to have been imparted to the Court of Examiners; otherwise they might be perpetually erring between the construction given to the Act by Counsel, and that by the Court of Assistants. Lord Palmerston has not brought in a Bill this Session; and these valuable servants of the public, the Navy and Army Surgeons, ought to be apprised, that there is no legal authority for supposing that they are not liable to prosecution if they practise without license from Apothecaries' Hall.

In the course of the first ten months of the labours

of the Court of Examiners, they had seen with great regret, the deficiencies of the Candidates who offered for examination; that many had consequently been rejected, and that others who had passed were by no means so perfect as could be desired, especially in Chemistry, Pharmacy, and Materia Medica. Nothing is more imperative than that every one who prescribes remedies for diseases should be acquainted with them when unsophisticated and in their natural state, as well as with their qualities, doses, &c. Candidates were perpetually pleading as an excuse for ignorance, that in the shops where they had served, all chemical preparations, tinctures, compounds, &c. were purchased ready prepared; and that drugs, such as bark, rhubarb, &c. were always in the form of powder. Many other important defects evidently existed in the elementary part of their medical education. The Court, sensible of this, drew up and published some very judicious regulations as to the nature of, and the testimonies of education which they expected from Students before they presented themselves for examination. But, aware of the physical impediments which prevented young men from acquiring, while apprenticed in the country, proficiency in this elementary knowledge; and that when they came to London they thought these studies of such inferior consequence, that they seldom paid them any attention; I entertained a belief, that if a degree of emulation could be excited among the Students, the study of Medicine, Chemistry, Pharmacy, and Materia Medica might be equally and as ardently cultivated as Anatomy and Surgery; to which, almost exclusively, the majority devoted themselves.

The desultory mode of education pursued in the London Medical School is, for many reasons, objectionable; but chiefly because talents are never fairly brought into collision: consequently, emulation is never excited. Hence, too, extraordinary merit meets with little notice beyond the insulated limits of a single hospital, and is long before it receives its just reward from public patronage.

I had before delivered my opinions very fully on this subject, in the Review of Cross's Sketches of the Medical Schools of Paris, in the *Medical Repository**.

I knew it was impossible for the Court of Examiners, which was not the executive body of the Society of Apothecaries, to carry any extended plan into practice; but I felt that, as a constituted body, it could, at a trifling pecuniary sacrifice, set an example that would confer everlasting honour upon its public character, and a most essential service both upon the public and the profession. I therefore had arranged a few outlines, which, as the first year of the services of the Court of Examiners was near expiring, and the same Members might not be reappointed, it was a fit time to propose.—On June 13th, therefore, I submitted an introductory motion [No. VI.].

This I prefaced by a few general remarks, stating,

* "London demands a SCHOOL OF EMULATION. Why do not the public teachers coalesce, and establish examinations, and exhibitions, and rewards? Every teacher would thus have the strongest possible interest in the improvement and attainments of his pupil: for the éclat of his success would be reflected on the school where he was taught; and the student would be excited by the most powerful and active incentive to apply with zeal, that he may be able to compete for honours which in professions never fade; and which, he well knows, must, in a country like this, where superior merit is always encouraged, lay the sure foundation for renown and fortune.

"There is, in London, another defect we will cursorily mention, and that is the want of a regular school of Pharmacy. The apothecaries' shops in England do not furnish those means of instruction in this important science which are necessary to form a good Pharmaceutist. Young men cannot acquire in such situations a practical knowledge of Chemistry, of Materia Medica, or of Botany; and, when in London, if they are laudably desirous of prosecuting such studies, there are no institutions affording all the requisites for pursuing them with full advantage. A school therefore should certainly be established in this metropolis, where all these sciences and arts would be practically taught and illustrated, especially Pharmacy, even to the very manipulations of the art. These projects are not chimeras; they are obvious, simple in principle, and facile of adoption, and such as we hope ere long to see carried into effect." *Number for December, 1815, Vol. IV. p. 457—88.*

that as the examination embraced Physiology, the Practice of Medicine, Chemistry, Pharmacy, Materia Medica, and was also to include Botany, that if a Prize were offered annually for an Essay on one of these subjects in rotation, that each would be treated once in every five or six years; and thus, time would be allowed between every Essay for new facts and discoveries being developed and collected, which would always afford fresh matter to the prize-subject, whenever it revolved. And, if it were thought this proposal would be objected to by the Court of Assistants, as there were twelve Examiners, a subscription of a few guineas each would furnish a prize of sufficient value to excite attention and competition; and establish a precedent worthy the example of their successors.

This motion was lost; and it was the only one which I submitted to the Court, while I had the honour of being an Examiner, that was not either carried, or had the support of half the Court.

In referring to the Minute-book a short time afterwards it was discovered, that the practice which had always heretofore obtained, of entering on the minutes of the day, the names of the mover and seconder of every motion, had recently been departed from, and that the names were now omitted. There was no order in the book, nor any motion entered, that authorised such an important change in the usage, which hitherto had been invariably followed. In tracing back the first departure from it, it was found that the above motion was the first instance of its occurrence. Upon inquiry, no satisfactory explanation of this singular alteration could be had. The Secretary could say only, that a certain Member had objected to the established form of making the entry; but the Court had never discussed any proposal for altering it, and of course there was no order recorded.

It was argued that the practice ought to be continued, and that as the precedent had been dropped without any authority, the names should be re-

stored to all the motions on the minutes. But this was rejected; and a motion was carried—"That the names of the mover and seconder of any motion be not entered in the minutes, unless specially directed by the Court!" I must leave the inferences from this extraordinary proceeding for others to make.

The period at length arrived, when the Court, according to the Act, were to be dissolved. Although there had been a great deal of discussion, some arrogance and illiberality, and a few acts that exhibited much personality, yet I can conscientiously declare, no animosity was ever entertained by me against any one, nor had my conduct out of the Court ever betrayed a feeling of what had passed within it. I continued to maintain precisely the same relations with every Member composing it which existed before its formation. For some months, the conduct of certain Members had departed much from that tone of dictation, which had proved so offensive; and I indulged a sincere hope that the reformation arose from conviction of former error. Hence I sincerely embraced the occasion of the meeting of the last Court, to move thanks to the Chairman; and this I did in as strong language as I could convey it; and the Court parted in perfect concord.

A day or two afterwards, the same members received a summons to be re-sworn. They attended the Court of Assistants for that purpose, as before; and the same cold ceremony took place. The Chairman was unanimously re-elected. Unhappily, occasion too soon offered to disturb this harmony.

On the 12th of September, a candidate presented himself for examination, to whom, upon the reading of his testimonials, I objected. But I cannot detail the whole of this affair better than by referring to the Letter [No. VII.] which I felt it my duty to address to the Court of Assistants, upon this memorable occasion.

The Chairman, and his *fidus Achates* upon every question, pertinaciously contended that notwithstand-

ing the late Act, every person simply compounding prescriptions, was, *bonâ fide*, an Apothecary; that prescribing for the sick was not necessary to constitute him such; and that the right of Apothecaries to treat diseases was by no means sanctioned by law. In proof of this position, the latter gentleman quoted the report of a trial, about a century ago, *The College of Physicians versus Rose*, (see *Mod. 44. Mich. 2. Ann. in B. R. 3 Salk. 17. 16 Vinet 341. 1 Brown. Partia. Cases 78.*), when a verdict was obtained in the Court of King's Bench by the plaintiffs, and which appeared to prove the illegality of Apothecaries prescribing for the sick. The Chairman, in the heat of argument, forgetting the more prudent caution of his friend, read to the end of this astounding report; and, unfortunately for his cause, read so much, that it turned out, that the House of Lords had reversed this very verdict; thereby establishing the indisputable right of Apothecaries both to visit and to prescribe for the sick!

I was not unacquainted with this trial: but so convinced was I that the Court of Examiners would perceive the deception that had been practised upon them, that I did not offer a single comment upon it; but to my astonishment, the votes of the Court were nevertheless equal, and the Chairman, according to his invariable course, gave his casting vote on the side he had argued.

As I had never been admitted into the arcana of the executive of the Society, nor into any personal communication, except when the Bill was soliciting and my advice was useful, it had escaped the recollection of the Chairman and his friend, that during one consultation with their Bill Committee only, I had a peep into the Minute-book of the Court of Assistants. The occasion was this: when the Bill was to come before a Committee of the House of Commons, it was necessary to be prepared with evidence that Apothecaries had for a long series of years actually visited and prescribed for the sick. The Chairman

stated, that if Mr. Haworth, the Father of the Society, could have been examined, he would prove that they had so practised, to his knowledge, for near seventy years. But there was also a report in their Minute-book to which Counsel might refer, and which had long since settled that point, viz. the trial of the *College of Physicians versus Rose*; and which had established that Apothecaries were legal practisers. The Minute-book was accordingly referred to, wherein it appeared, that the Society had taken a very great interest in this question; and had, if I do not mistake, at their own cost, defended Mr. Rose against the College; moreover, had celebrated the reversal of the verdict of the Court of King's Bench by the Lords, as a very great triumph; and, further, it was said, that, from the date of that trial, the legality of Apothecaries practising had never been disputed. Yet the two persons, who were so well acquainted with all these circumstances, eighteen months afterwards, when it suited a particular object, perverted this document, and brought it forward to support a contrary position. I mentioned this circumstance to several Members of the Court of Examiners, after this curious specimen of tergiversation had been exhibited.

On Sept. 26, I presented a formal protest, [No. VIII.] against the illegal proceedings of the last Court; but it was decided, that it should neither be received nor entered in the minutes.

On the same day a Member, who was a Member of the Court of Assistants likewise, expressed his determination to bring forward in the Court of Assistants, my conduct in refusing to put my signature to a Certificate, which all the other Members present had signed.

To this I replied, I had acted under the conviction that it was an illegal, as well as an impolitic, act; that since the last meeting I had taken a legal opinion, which had confirmed my judgment of its illegality; and that there existed no power within those walls, that should make me do any action con-

trary either to the letter or the spirit of the Act of Parliament. That he might complain to the Court of Assistants if he pleased; but that he must recollect the doubly responsible and delicate situation he and the other gentlemen, who were Members of both Courts, had placed themselves in: they were bound by an oath not to reveal the secrets of the Court of Assistants, and they were bound by their word and honour, and the rules of the Court of Examiners, not to reveal their proceedings. How then could he represent what was passing in that Court in another place, and not be dishonoured? The present was a fit opportunity for telling him, and the other gentlemen who were Members of both Courts, that the two situations were incompatible, for no man could faithfully serve two masters; that no one who was a Member of the one Court ought to belong to the other; and that, no doubt, there would be frequent opportunities when they would all feel the truth of this remark. The Member prudently declined his threatened proceeding.

On the same day, Oct. 3, that the Letter [No. VII.] was sent to the Court of Assistants, I informed the Court of Examiners that, although I had been the person chiefly instrumental in framing the rules by which it was regulated, yet I confessed I had wilfully broken them; a step which nothing else would justify, but the determination that the Court had manifested to compel me to do an act which my reason told me was as contrary to the law of the land, as it was to the duty I owed the Society, and to the whole body of Apothecaries:—I had sent a Letter that morning, detailing the facts which had occurred, relative to the examination of the Druggist, and appealing to the Court of Assistants, whence the authority of the Court of Examiners emanated, for advice: but that, as I scorned to do any thing covertly, I begged leave to inform the Court of what I had done, and to lay upon the table an exact copy of that Letter for its information.

Soon after there was a Meeting of the Court of Assistants, and I expected some notice of my statement and application for advice as to my future conduct. The Chairman of the Court of Examiners had just been chosen Master of the Society. I waited till the 27th of November; when, fearful lest the same question should again be agitated before I had the expected answer, I wrote a private note, [No. IX.] to the Master. I received the reply, [No. X.] to which I sent the rejoinder, [No. XI.]

I now felt assured that no notice would be taken of my Letter of Oct. 3rd. Having waited till December, I was almost resolved to lay the whole transaction before the public, but from this I was dissuaded; it being urged that it was very possible that the Court of Assistants had been so much occupied with other business that they might not have had time to enter upon the subject; and that, as there would be another Court at the latter end of that month, it would be prudent to wait the event of it. To this advice I gave assent. When, on the 1st of January I found I was completely anticipated; for my letter appeared in the Medical and Physical Journal, and in the Medico-Chirurgical Journal. The Editors added, that it was anonymously sent; and yet, in each Journal it is differently inserted. I suspended my intention of publishing to see what would be the result. A considerable sensation was evinced by those who felt themselves exposed to censure by the publication. The Court of Examiners took no notice of it; but, nevertheless, great inquiries were made to discover the publisher. I found that I was suspected; but that little concerned me. I frankly answered all my private friends who spoke to me on the subject, and contemned the idea of its being imputed particularly to me, when there were so many other channels through which it might have become public.

Shortly it was bruited through the Hall, that I was to be summoned before the Court of Assistants to answer their interrogatories respecting the way my

letter became public, and the affair lost nothing by the diffusion of the report. I treated the whole with contempt. At length, on the 5th of March, I received a summons, (No. XII.) which bears date the 28th of January! Evidently something was now intended, and not of a very friendly nature, else why delay the notice five weeks? and why omit stating for what purpose I was to appear?

Thursday the 20th the Court of Examiners met as usual, and after the ordinary business, the same gentleman, who, being a Member also of the Court of Assistants, had threatened to inform that Court of my refusal to sign the Druggist's certificate as an Apothecary, said, that as it was well known that a letter, which I had written to the Court of Assistants in October, had appeared in the Medical Journals, he moved, that the paper which he had drawn up, declaring that the Members composing that Court knew not by what means such letter had been published, should be signed by them all, and be sent to the Court of Assistants, which were to meet on the following Tuesday!

Certain Members, by their alacrity in acquiescing, showed how deeply they participated in this act; others were astonished; some hesitated, and testified their repugnance to subscribe to a proposal which took them by surprise; but as all declared they knew nothing of the letter, the whole at length signed the paper. When it came to my turn, I passed it on, nor did I make any comment till all had affixed their signatures. One Member, when he had signed, having a particular engagement, was obliged to retire.

I asked leave of the Court to take a copy of this paper; to which, however, without leave I had, as a Member, an undoubted right. The Chairman and his friend peremptorily refused, unless I would say what I intended to do with it! This I declined doing. Stung to the quick by this unprecedented and illiberal proceeding, I indignantly remonstrated

against the manner in which I had that day been treated; which I avowed I should ever conceive to be a gross personal insult; for it was:—1. A direct violation of that respect which was due to a colleague, who had been as attentive to his duty as any Member of that Court, and who never in one instance had given to any of them personal offence; and because the Member who now brought this declaration so suddenly before the Court, had had months to consider of it, and now introduced it without the least previous notice: 2. That it was directly contrary to the rules of the Court, [No. XIII.] which provided in all personal affairs, a mode of proceeding, well according with delicacy to the individual, and the respect due to the Court: 3. That it was peculiarly indelicate, to say no more of it, in a Member of the Court of Assistants to bring forward such a measure in that place, where there were also two others like himself, who were to sit, on the following Tuesday, as judges in another Court upon a matter they had made themselves principals in: 4. That it was highly indecorous and unjust to place an accused person in such a dilemma. It was prejudging the case: for if I signed the Declaration, it would be superseding the inquiry which was instituted, and deprive me of the only opportunity of doing myself justice before the Court of Assistants; and if I did not sign it, it would be considered by that Court as a confirmation of their suspicion. I concluded by observing, that it was my opinion, that the whole business was rash and unfair, and reflected great discredit on those who had countenanced it. I would fain be excused repeating the reply of the Chairman, but I wish to give a faithful picture of the scene in which I was involved: "Your opinion," retorted the Chairman, "who wants your opinion, Sir?" I cannot express what were my feelings; but at the moment, I answered him as I felt. I then inquired of the Chair, if the business of the Court was over? and receiving an affirmative, retired.

I was informed the same evening that upon my

departure another singular scene arose. The observations I had made, after the Declaration had been signed, had opened the eyes of many to the indiscreetness of what they had done, and the consequences to which it might lead. How then to undo what had been so precipitately concluded, was the subject of a desultory debate of an hour. Some were for burning the Declaration; this could not be done because one Member, who had signed it, had left the Court; others proposed that the Secretary should keep it until the ultimate disposal of it could be agreed upon; but he prudently declined having the charge of a paper that had caused so much confusion; at length it was folded up in an envelope, and sealed with the seals of several of the Members!

The gentleman who so injudiciously introduced this motion, averred that it was his own spontaneous act; thus implying either that it was an error in judgment only, or that he had no coadjutors in the transaction; but I have obtained clear information that it was premeditated, and that he actually consulted other Members of *both* Courts upon it, before he entered the Court Room. The only excuse I can allow him is, that he was the cat's paw on the occasion.

The eventful 25th of March arrived. I was punctual in attendance on the Court of Assistants. I found a Member of the Court of Examiners, who had taken the copy of my Letter home with him, and retained it a few days, and the Secretary to the Court of Examiners in waiting. They were both examined before me; even the Secretary—a thing rather contrary to the rules of etiquette. After waiting an hour and a quarter, I was at length called. Like a culprit cited before his judges, there was not the smallest token of civility or respect evinced—no salutation—no seat provided; but contrary to every principle of justice or equity, I found the parties most interested,—my decided opponents—those in whom this very inquiry had originated, with another of my colleagues sitting in judgment! and my col-

league, the Chairman of the Court of Examiners, now as Master of the Society, presiding over the Court, and commencing the interrogatories ! But even this degree of indecency, after all I had witnessed, I was prepared for. I believe by the old constitution of the Society, a Court could not be held unless the Master presided ; but by the 6th clause of the new Act, which the present Master had himself introduced, it is enacted—"That each and every of them, the said Master and Wardens, for the time being, may, and they are hereby respectively empowered, by writing under his or their hands, to appoint any one or more of the said Court of Assistants to act as Deputy Master, or as Deputy Wardens, as the case may be, in all matters and things done, or authorised to be done, by the said Master, or the said Wardens, under and by virtue of the said recited Charter, or of this Act," &c. If nothing but an impartial inquiry were meant, here was an opportunity for the Master to evince it, by declining to preside : it would have been a most delicate and unequivocal proof of liberal feeling. But the sacrifice of such a triumph as was anticipated, was too great to forego.

The moment after quitting the Court, and that I could, I noted down the whole of what had passed ; and having been somewhat in the habit of reporting, I can aver that the following is a pretty correct account : I will pledge my honour there is nothing intentionally omitted or altered :

Mas. The Court are desirous of knowing from you, Sir, how this Letter came into the Medical Journal ?

B. What Letter, Sir ?

Mas. The Letter you sent to the Court some time ago, an exact copy of which is printed here ?

B. Did the Court then receive any Letter from me at that time ?

Mas. Yes.

B. How should I know that ? did they ever notice or answer it ?

Mas. No ! the Court did not think it necessary.

B. Then what right have the Court to ask me relative to a Letter which they did not think worthy of acknowledgment or answer ; and which consequently is no document to refer to. I think they were bound to have answered it ; but as they did not, they ought not now to make any question about it. But pray, Sir, in what capacity am I cited here ?

Mas. As a Member of this Society, I believe, Sir.

B. I deny your authority to summon me here, as a Member of the Society, for what I did in my official capacity as a Member of the Court of Examiners ; they are quite distinct from each other.

Mas. I fancy the Court has cognizance of the matter.

B. I am clear they have not. But I'll waive all objection : I don't come here to dispute the authority of this Court. And now let me know what the Court desire, and I'll answer ; although I have reason to complain of not being treated with candour and openness in this affair.

Mas. Do you know, Sir, how this Letter came to be published ?

B. All I have to say about the Letter is this :—Here is the fellow of that copy of it which was left with the Court of Examiners. Both were written at a law-stationer's, as I wanted them to be copied in haste. Twenty people might have seen them there. This copy has been in the hands of two solicitors, whom I consulted upon the point of law proposed in it ; and a case for counsel was made out from it, upon which I was determined to have acted. This copy was returned to me, and since has never been out of my hands, except to lend it for two or three days to a Member of the Court of Examiners, who was out of town, when the circumstance it refers to took place. I have never suffered any medical or other person else to see it, and I have never, even to my most confidential friends, mentioned its contents. Two gentlemen, Members of the Court of Examiners, said they had had copies of it sent

mous opinion I should have an answer after the following Court; but within a few days after the second Court, the Letter was anonymously published in the two other Journals. I therefore, being anticipated, took no further steps in the business.

Mas. This is nothing to the purpose, Sir.

A Member. I was going to say so, Master.

Another Member. But, Sir, you have not come to the point about the Letter.

B. Sir! I have said all I intend to say about the Letter, and if the Court are not satisfied with my explanation I shall say no more. (A pause.) Sir, (to the Master) please to accept my resignation of the office of Examiner. [No. XIV.] Gentlemen, Good Morning.

I then withdrew.

The neglect the Court of Assistants had shewn to my application for advice, to guide me in the execution of an office which they had sworn me to execute "faithfully, impartially, and honestly, according to the best of my skill and knowledge," and which they would not have refused their most inferior servant; the rumours which the unguarded speech of many of the Members of that Court had occasioned; the form of the summons, which intimated nothing; the delay in serving it; the disgraceful scene at the last Meeting of the Court of Examiners; in which some of the very individuals composing the present Court were the prominent actors, and might possibly, as in fact one, as we have seen, really did again take the lead, were circumstances when combined, which impressed me with the conviction that there existed a party, determined, at all hazards, to get rid of me; and that they had tutored the Court of Assistants to their views. It was time, therefore, to think of what was due to my own character.

Nothing but a sense of public duty had kept me so long a Member of the Court of Examiners; and while I felt conscious I could be serviceable to the

profession, I was determined no intrigue should induce me voluntarily to retire. But I was confident that there existed so predominating an influence, of which many other very recent proofs had been given, not relevant to the present subject, and therefore I shall not adduce, that my presence as an Examiner could no longer be useful; and therefore I carried with me a notice of my resignation, which I meant to present or not, according to the manner with which the Court acted.

All the precursory circumstances I have detailed argued unfavourably, and what occurred in the interview aggravated them. I was particularly shocked to learn, that, although the Court of Examiners, upon re-consideration of the Declaration, had thought it necessary to hesitate, and finally not to transmit it to the Court of Assistants, yet had been so neglectful as not to inform me of it; but left me to appear before the Court, supposing that it had been presented. I found also that in the very bosom of the Court there was no spirit of conciliation; but, on the contrary, there was an indisposition to permit me to do myself justice, or to give me credit for the numerous instances I had shewn of unbounded zeal for the *real* interests of the Society. The finishing stroke was, the desire evinced by other Members of the Court, besides the Master who had many times interrupted what I was saying, to cross-examine me; and this after I had declared I had no more to tell relating to the Letter: this determined me immediately to withdraw from so ungrateful a service.

It were worthy of inquiry, what object the Court of Assistants had in view by this imprudent interference? If the Letter did not merit an answer, it was waste-paper, and the contents indifferent. If the subject were important, and its publication of such consequence as to deserve inquiry, it was a dereliction of duty in the Court not to answer it. Suppose I had published it, had I violated any obligation to them? If the publication were the

to them ; but I declare, upon my honour, it was not done by me. This is all I have to say upon the subject. —But as I am now before this Court, I must beg leave to repeat, that I think I have been altogether very improperly treated. I received a summons to attend here, but it stated no purpose for which I was desired to attend. Certainly, if this Court had cause of complaint or suspicion against me, the notice should have specified for what purpose I was cited. I might then have been prepared with evidence to rebut any accusation. This would have been an equitable way of proceeding. But I do not pretend I was ignorant why I was summoned, though no thanks are due to this Court for it ; for it has been noised abroad, and reached my ears, with a variety of strange additions from various quarters. But I treated these rumours as ridiculous ; and did not believe the import of the notice, till a Member of the Court of Examiners called upon me about ten days ago, and made me acquainted with the nature of the business of this day. This leads me to another affair, wherein I have been most grossly and insultingly used. I allude to a declaration produced last Thursday in the Court of Examiners for the signature of its Members, and to be sent to this Court ; a measure which was levelled directly at me, and was a violation of the established laws of that Court, and of every rule of decency.

Mas. Sir, there is no such paper before this Court. This Court know nothing of it.

B. Not before this Court, Sir ?

Mas. No, Sir.

B. Still, Sir, this Court do know something of it ; I am confident there is not a man in it ignorant of the transaction ; for it was brought forward by a Member of this Court in the other Court.

Mas. We can't permit you to speak of things not before us.

B. Gentlemen, my character has been aspersed, and unfair means used against me. I call upon you to permit me to use this opportunity of clearing myself.

Mas. The Court can't hear you, Sir !

B. Gentlemen, you have no right to refuse me. It was you who summoned me here, and now I have a right to be heard. You appointed me to an official situation, in executing of which I have been ill used ; and I have just claim upon your attention and protection. I have endeavoured to do my duty honestly. I have sacrificed much in the obtaining the Act that enables you to chuse a Court of Examiners ; my health and my business were both injured by my exertions, and it will be very unjust not to hear such a man in his own defence. I have never done any one thing to deserve your censure ; but I believe much pains has been taken to misrepresent me in this Court ; and I wished for an opportunity of personally telling you that every thing I have done as an Examiner, has been of a nature to draw the two Courts into closer union, and not to sow disunion ; and it has been done with perfect respect to this Court. Before you suspected me of doing any thing covertly, it should be proved that publishing this Letter was at all wrong.

Mas. I don't say it was ; certainly you might publish it if you pleased.

B. Sir, I am not a man to do an act in a corner, and be ashamed afterwards of avowing it ; I will tell you more about this Letter. I was extremely hurt, I confess, that I received no answer to it ; for I thought it was the duty of this Court to reply to the application for advice of any person they had appointed to execute a particular office, and who felt he was required to act against the law and his conscience. After waiting nearly three months, I intended myself to have published the Letter, but with my name attached, and in my own Journal, *The Repository*. I was dissuaded from so doing by several friends, Members of the Court of Examiners, upon the plea that, at the first Court after receiving the Letter, there might be so much business before it that there was no time to consider it ; and it was their unani-

business of either Court, it was assuredly that only of the Examiners.

It was certainly in my power to have pointed out many channels through which this Letter might have found its way to the public. I could have directed the Court of Assistants to have examined its own Members, and have pointed to an active Member among them, who, if he did not shew it to another person, at least described the matter it contained; but so erroneously, and with such absurd comments upon it, that it was plain he was totally ignorant of the Act of Parliament, and the subject to which the Letter referred. That this gentleman had thus broken his oath, was related to me in a large company, and within sixty hours after my letter had been read in the Court of Assistants! I mentioned this breach of duty and decorum to some of the Members of the Court of Examiners many weeks before the letter was printed in the Journals. There were probably forty individuals of the Society, who might, if they chose, have had access to and copied it. But neither the favour nor the censure of any authority would have induced me to betray the confidence which had been reposed in me.

In reviewing the preceding transactions, it is natural to conclude that there is something radically defective in the constitution of the Society, or that the executive part of it has a very imperfect notion of the duties imposed by the late Act of Parliament "*For the better Regulation of the Practice of Apothecaries.*" Both these conclusions are just. The composition of the Court of Assistants is the great defect; and until that be remedied, or the administration of the Act be placed under other auspices, it is impossible that the intentions of the Legislature and the Profession can ever be as beneficially executed as they ought to be.

A Member is sixty years of age before he comes to his rotation of being admitted on the Court of Assistants; and from the increase of the Society within the

last twenty years, the calculation now is, that every Member will have attained to seventy before he is on this Court;—a period of life when most have forsaken all professional views, and are guided by those which are the natural concomitants of great age.

Full sixteen of the twenty-four present Members do not practise the profession: some of them for thirty and forty years have retired; one or two never practised at all. How is a Court so constituted to have a proper regard for the interests of science? The extension of their trade had been, for a long series of years, the principal care of the Society; and in cultivating it, they suffered many valuable privileges granted by their charter, and which embraced professional objects, to become obsolete; and the institutions depending upon them for the encouragement of science, to fall into decay. An executive so composed is little calculated to inspire confidence. But, as it ever has been, the Court were known to be influenced by the opinions of one individual, and he appeared, happily, to possess the estimation of all classes of the Society. This individual is Mr. SIMONS, the present Master. To his exertions were ascribed several improvements; two of which reflect great credit upon him, viz. the restoration of the Botanic Garden, at Chelsea, and the appointment of a Professor of Chemistry and Materia Medica, who is an ornament to science. Such acts inspired me with great respect, and I viewed them as harbingers of a new and a more enlightened policy.

Previously to the Association, I was almost unacquainted with this gentleman; but I had ever heard of him as one possessing ability, and a liberal mind. It was matter of much gratulation to me, to think that under such auspices, it was very probable, that the Court of Assistants would, if the power were trusted with them, exercise it impartially and for the benefit solely of the profession. Had not Mr. Simons been among them, I should have doubted the policy of the step the Association had adopted by commit-

ting their interests to their charge and direction. I could not imagine that a person so characterized would voluntarily take an advantage, or support any proceeding that regarded the administration of the Act, contrary to the most liberal interpretation; except that he had been over-ruled, and had acted rather in compliance with superior obligations due to the Court of Assistants, than those which he owed to the Committee of the Association of which he then was, and still is, I believe, a Member. Therefore, giving him full credit for correct and honourable intentions, I wrote to him very fully and confidentially, just at the period when the Bill was supposed to have passed, [No. XV.], pressing a point of great interest with the General Practitioners.

This letter manifests my very high opinion of him, of the power he possessed of insuring an adherence to the spirit of the Act, and the doubts I entertained of the Court of Assistants acting as the importance of the measure demanded; unless guided by the enlightened mind of some one who had, from conviction, solicited the Act on the broad basis of public good.

Until the present moment, no one ever knew that I wrote this letter, nor of many other efforts I privately made to induce a liberal policy in carrying into execution the new Act; nor is this the only proof of my anxiety that the Court of Assistants should embrace this opportunity of evincing their earnest disposition to do every thing the occasion required, and that they should enjoy all the merit, as if spontaneously emanating from themselves. Among other efforts to raise the character of the Court and conciliate general esteem, I suggested the conferring of some especial mark of their sense of the eminent services rendered on this occasion by several Members of the General Committee, who were not Members of the Society, and who had successfully laboured in promoting and obtaining that Act, by which the honour and advantage of the Society would be so

eminently benefited; and further how gratifying it would prove to the whole body of Apothecaries, if the freedom of the Company were voluntarily presented to one or two of the individuals who had so highly and disinterestedly distinguished themselves; well knowing that the Court of Assistants possessed the power of so doing, and that its interest could not be injured by such an instance of liberality.

Nothing can be more foreign to my nature than to descend to personality. I have nothing in the execution either of my public or private duty to charge myself with on this account; and when, as an Examiner of the Society, I have often felt obliged to repel attacks upon the privileges and character of the Court or the Profession, and I have in the warmth of argument uttered an expression that might be so construed, I have ever been ready to apologize for the transgression. But, at the same time, I have ever considered the actions of persons, who have voluntarily undertaken a public trust, to be fair objects of reprehension when they departed from the strait line of their duty. The more exalted their rank, the greater generally is their ability to do good or harm; and such persons ought to be viewed with the more vigilance and apprehension.

The formation of the Court of Examiners, and some immediate acts, excited a suspicion that the Chairman was not quite so disinterested as was hoped. A monopolist is dangerous in all societies. And I could not help fearing that when in one individual the responsible offices of Member of the Court of Assistants, Chairman of the Court of Examiners, Treasurer and Chairman of the Navy Department, Chief of the Commercial and Botanic Departments, &c. were united, that the combination would produce an influence too preponderating to be resisted. It was conceived, that, when elevated to the rank of Master, he would be deterred from continuing an Examiner, by a just sense of the inconsistency of the first officer of the Society acting in a Court subordinate to that in

which he was paramount; and the reflection that if he displeased its Members, by the power given under the 10th clause of the Act, they might, at any time, degrade him from their Chair,—but the Master of the Society continued also Chairman of the Court of Examiners!

When such power is concentrated, it is overwhelming; and the Act will continue to be administered rather as it suits circumstances, than according to the spirit of the law.

Unfortunately, too, so much of the old trading leaven of the Society prevails, that the honour and the power which the Legislature has recently conferred is less considered as a means of improving the Profession than as a new source of acquiring wealth and power.

This remark would appear illiberal, if it were not true that the Chairman of the Court of Examiners has several times in plain terms, told the very Court over which he was presiding, that it was no greater in rank or importance than a mere Committee, like any of the selling Committees of the Hall, and that it had no business to deliberate or debate upon any subject! When also the subject of remuneration was introduced, the most offensive comparisons were made, and the services the Court rendered were constantly paralleled with the functions of these Committees. The Members within these two months had reason to represent that when they attended in their places, and there was no Candidate to be examined, the example of all other Courts should be followed, and some fee be allowed to every such Member; more especially as many of them came from a considerable distance to make a Court, which the Act enjoins shall, whether there be business or none, be held once in every week. To this also it was most uncourtously retorted, that those who did not approve what the Court of Assistants were pleased to grant, might retire, for there were plenty who would be glad to fill their places!

In making a determined stand against admitting a person who had been apprenticed only to a Chemist, I was moved by no principles of hostility against this or that class of persons. I have uniformly resisted encroaching upon the rights of any body of persons connected with the practice of Medicine; I never for a moment tolerated attacks upon any of the constituted Medical Bodies, although, of course, their conduct, as it related to the proceedings of the Association, was often fully canvassed and unavoidably censured. The practising Apothecaries justly complained that the dispensing Chemist and Druggist had greatly deteriorated the profits of their business; and I, as much as others, felt the truth of it: but the practice had existed so long, that it had acquired from custom the force of law, and it was impossible by sudden or violent means to suppress it. It had indeed become difficult to define who was or who was not an Apothecary; and I greatly rejoiced when the Chemists and Druggists proposed the twenty-eighth clause of the Act, because it in some measure defined that which was before undefined.

The licensing of this candidate, whom I opposed, was afterwards justified by those who supported him, on the ground that his examination proved his competency; but this was quite another, and *à posteriori* argument. The objection was, that with such testimonials as he had produced, he could not be legally admitted to an examination. A person who has spent seven or eight years in a mere trading concern, is little calculated to adorn a profession. Circumstances have so changed the business of Apothecaries, that, now, if they are attentive to medical practice they have no leisure for retail business; and hence few keep shops. There is a character appropriate to the practice of the honourable Profession of Medicine; and, whenever it is departed from by any class of those who exercise it, we may say with the poet, "Farewell all Physic."

To admit a Candidate to examination who pro-

duced the testimonial of a Chemist's apprenticeship only, was opening a door wide which had cost so much pains and expense to close; and it was to the manifest injury of the profession of the Apothecary.

The *cui bono* here naturally occurred. There were, particularly since the peace, more regularly educated Practitioners in the kingdom than could find employment. To introduce irregulars was to the injury of those who had a right to look to the Society for protection. Would the Society deny this justice to their brethren? Were it possible, that for the sake of the paltry gain which might accrue from the issuing of more Certificates, that the Society would barter the interests of the great body of Apothecaries? To these arguments no answer was returned.

Perhaps it may be asked, when I saw the arbitrary course which had been adopted, and such flagrant violations of the spirit of the Act, and that I found the efforts of a few independent Members of the Court of Examiners who entertained my sentiments were unavailing, why I did not take steps to lay the case before the Public, and promote this session an appeal to Parliament for the amendment of the Act? It must be remembered, that the particular fact which now brings me before the Medical Public, and which caused my Letter to the Court of Assistants, of the 3rd of October, did not occur till the autumn; that I was obliged to wait till Christmas to see whether the cause of complaint would be corrected; that as soon as I could receive that answer, some officious person published my Letter in the Medical Journals; that this immediately excited a commotion that indicated some decisive consequences; that in January it was agreed upon by the Court of Assistants that there should be an inquiry instituted, with the nature of which I was ignorant till the 25th of March; that while all these things were *in transitu*, it was impossible I could judge the event; and, finally, that while I was a Member of the Court of Examiners, I was bound in honour not to divulge its

proceedings—and I here publicly challenge an allegation that by any act or discourse I ever betrayed or hinted that any irregularity or cause of dissatisfaction in that Court had ever existed.

I am absolved from this obligation; and therefore am at liberty to reveal various causes of very great dissatisfaction and disgust. In so doing, I have undertaken, in justice to those who have confided in me, and to my own character, a very painful but necessary duty. When every transaction connected with the execution of my trust is disclosed, it rests with those whom it most concerns to take what farther steps they may chuse to determine.

Prolix as this account has been, yet I must take the liberty of adding something more. May be it is the last time I shall have to address, on this subject, a large and most respectable class in society, to whom for so many years of my life I belonged, and for whose welfare I shall ever entertain the most lively regard. It is the result of dear-bought experience, and, as a legacy, it may be useful on future occasions.

It will be seen that there are fundamental errors in the Act, which sooner or later must be rectified. From this exposure, and perhaps from the dread of expense, the Court of Assistants will, no doubt, studiously, and as long as it is possible, avoid going to Parliament to amend the Act. But the Association sleeps only; it is not defunct. There are very strong grounds for a Petition to Parliament to amend the Act: 1. On account of its present errors and defects, many of which have been detailed: 2. That under its present form of administration, it cannot be made as useful to the Public or the Profession as was intended: 3. Because the Court of Examiners is dependant on the Court of Assistants, although the former is the only competent body to judge what is requisite to give effect to various provisions of the Act; therefore that Court, and not the Court of Assistants, should, under certain restrictions, have the disposal of the monies arising from the premiums for Certifi-

cates: 4. Because Members of the Court of Assistants are allowed seats in the Court of Examiners.

If the Court of Assistants consisted of gentlemen in the vigour of their years and faculties, and were actually practising Apothecaries, then the Court of Examiners might, with some propriety, be confined to that body only, as is the case in other Corporations; but while the Members are elected by seniority, twelve Examiners, properly qualified, can never be selected from among them. Let the Court of Assistants enjoy the property, honours, disposition of the Trading Committees, and of the Trade itself, which they have so successfully conducted; but let the Court of Examiners have the means of carrying into effect the professional objects of the Act, without other control than the law, and with a fund adequate to so important a purpose. The Trade of the Society is an affair that concerns those only whose money is embarked in it; and those who enjoy places, authority, and emolument arising from it. If the Trade be badly conducted, the Public would, comparatively, be little affected, for they would apply to other traders; but the functions of the Court of Examiners are of infinitely high importance to the public weal, since the health of nine-tenths of the population of the kingdom is concerned in an effective discharge of their duties.

As to the Court of Examiners; while they are nominated by the Court of Assistants, care will be taken by the latter to chuse several of their own Members, and the remainder will be selected from those who hold situations of dependance and some value, and upon whose acquiescence they know they can always depend for a majority.

None can be more respectable as men or capable than the present Court of Examiners; and it is becoming me that I should bear testimony to their attention and great patience in examining the Candidates, and the strict impartiality with which the examinations have always been conducted. But the secret influence of the superior court, and some attachment to old preju-

dices, are too much felt, and induce an unbecoming vacillation. Several important motions would have been carried, if, when a Member of the Court of Assistants has happened to differ from the Chairman, he had dared to vote according to his conscience; but as he could not do that without offence, he has not voted at all; and therefore a motion has sometimes been lost, although the sense of the majority was for it.

While any of the Members remain in the Court of Examiners whose views assimilated with mine, I apprehend that some reason will be devised for their removal. A complete change, perhaps, will never happen: there is too much tenacity for place and power to commence with the senior members, and to begin with the juniors would be invidious and contrary to all precedent. Time will discover whether my abdication suffice, or a purgation be still deemed expedient.

From the induction of the Court of Examiners into their office, to the present moment, it would appear that they have been the constant object of the jealousy and suspicion of the Court of Assistants. The latter have been evidently afraid of an *imperium in imperio* within their sacred walls: and yet I will venture to assert, that the Court of Examiners never, for one moment, by any act have interfered with or lost sight of their respect for the superior Court.

The erection of this new Court has deprived the other of no peculiar privilege to which they had ever shewed attachment. Precisely the same authority is exercised by them. Whatever good is accomplished by the labours of the new Court the whole credit is reflected upon, and attaches to the Society as a corporate body. It is true that persons becoming Members of the Society, instead of being examined by the Court of Assistants, must now be referred to the Court of Examiners; but this the former cannot lament, since their examination was so loose, that every candidate, by giving a small *douceur* to the beadle,

might be pre-informed what he would be examined in. The Court of Assistants also receive the proceeds arising from the examinations, and they dole out the quantum of remuneration as they please; nor can a guinea, however pressing the occasion, be appropriated by the Court of Examiners—a circumstance which may be attended with peculiar inconveniences. Indeed it has already several times occurred, that that Court have found it necessary to the interests of the Society, and those concerned, that a certain Resolution should be advertised; but as this was first to be submitted to the Court of Assistants, who hold the purse, and as they meet, perhaps, only once a quarter, the Resolution of the Court of Examiners has been entirely disregarded, or garbled, or advertised so partially, or at such a distance of time, that it has been rendered totally inefficient.—These are very serious obstacles to the administration of the Act.

This childish jealousy shews itself also, tacitly, in various ways. I will mention, for example, one only: It has been the custom from time immemorial for the Court of Assistants to invite to their Court-Dinners, the Members who hold offices in the Society. Although they have placed in the List of the Society, the Court of Examiners next to themselves, and before the Committees; although they have reimbursed themselves for the expense of the Act, and have funded a surplus of several hundred pounds, arising from the examinations; although by the appointment and the labours of this New Court, the Society have been elevated from the character of a mere trading Company, to the rank and consideration of a Medical Body, entrusted with most honourable and extensive privileges; yet the Court of Assistants have never paid the Court of Examiners the compliment of a single invitation! This trifling mark of civility would have been no great stretch; for out of its twelve Members, nine or ten are visitors of course on these occasions. The temper of public bodies,

as well as of private individuals, is as much betrayed by minor traits, as by acts of the first importance.

The Court of Assistants have been singularly remiss in suffering almost two years to elapse without even revising their bye-laws, which bear date, 1799; and which, as may be supposed, are totally inapplicable to the present functions and relations of the Society.

Infinite are the instances of the infraction of the Act, by persons in no respect qualified, commencing to practise as Apothecaries since the passing of it, and of whom no example has yet been attempted to be made. The difficulty of obtaining evidence has been objected; but the difficulty would vanish if the desire to gain information and prosecute were real. Even if the charge were once preferred and failed, the knowledge that the Society were determined to protect their own rights, and those of the regularly-educated Apothecaries, would deter others from the commission of similar offences. But the fear of expense pervades every determination, and paralyzes all energy.

This Exposition will evince, I hope, that I have discharged the various public functions with which I have been honoured with correspondent zeal and fidelity; and that although, in so doing, I have had to encounter a degree of hostility and misrepresentation not precisely to be expected, and which I will not conceal have been extremely distressing* to my feelings, yet that personal considerations have never interrupted my exertions.

In the performance of these functions, I have given unequivocal proofs of my respect for the Society, even when combined with those endeavours which my anxiety for a correct interpretation of the Act prompted. Perhaps it may not be irrelevant to refer

* The numerous individuals who have at times applied to me since the passing of the Act, for the exertion of my influence with the Society, in aid of various requests, and which in a general way I evaded, will see in these pages an ample apology for my conduct.

to one of those proofs; because it was done without the participation or knowledge of any one, at some cost also, and especially because it received the marked approbation of the Society; who, at *their own expense*, honoured it with a re-publication. I thought an explanation of the Act was greatly wanted, both for the information of the public and the profession. I therefore published a Letter in the *Morning Chronicle*, and afterwards in the *Medical Repository*, (Vol. V. p. 85); to the pages of which also I might refer, for numerous instances of my constant desire to give full effect to the Act. I have inserted it in the Appendix [No. XVI.] because it contains some doctrines, which although highly approved at the time, yet were, when afterwards urged by me in the Court of Examiners, by the very same individuals, denied.

When I ceased to be an Apothecary, it was my sincere wish to retire from the Chair of the Association and the General Committee; well knowing that many would conclude, that my interests not being the same, I should be less ardent in their cause. Neither did I perceive in what manner my continuance in that office could be serviceable; but the Committee earnestly pressed me to remain until the Surgeons' Bill was disposed of; and then the business for which they were constituted, being finished, nothing was left to be done but for themselves, with me, to render an account of our proceedings, and to relinquish our trust. With this argument I acquiesced; but I shall be ready, whenever called upon, to account for my conduct, and return to that privacy and quiet, to which so long I have been a stranger.

Still I shall derive consolation from the belief that good may spring from my resignation; and great as was the satisfaction I derived from contributing my aid in the Court of Examiners, yet that sacrifice will be cheap if it tend to establish a better system of administration.

The Court of Assistants may at length open their eyes to the danger of the course they are treading, and may, by adopting a more enlightened policy, prevent further consequences.

Judge Blackstone has observed, that "Corporations, being composed of individuals, subject to human frailties, are liable, as well as private persons, to deviate from the end of their institution." The Court should not forget, that these frailties will appear more striking in proportion as private interest or ambition predominates. The greatest fault that can be committed is to risk so important a charge as the Legislature have confided to them, to the keeping of any one person, who, whatever may be his virtues and talents, may have infirmities also; and hence the character and interests of the Society may be irretrievably implicated. Let them reflect for themselves, and act for themselves; they will then come to right conclusions, and pursue the path which will direct them to honour and respect. It is for the good of the Public, and not for that of the Society alone, they are called upon by the Legislature, and the voice of their brethren, to administer the Act of Parliament. It is a remedial Act; and it should be ever remembered as a maxim laid down by the same great constitutional Lawyer, that "There are three points to be considered in the construction of all Remedial Statutes; the old law, the mischief, and the remedy: that is, how the Common Law stood at the making of the Act; what the mischief was, for which the Common Law did not provide; and what remedy the Parliament hath provided to cure this mischief. And it is the business of the judges (i.e. the Court of Assistants,) so to construe the Act, as to suppress the mischief and advance the remedy."

APPENDIX.

[No. I.]

Copies of Resolutions moved in the Court of Examiners.

(January 11th, 1816.—Carried.)

THE Court of Examiners feeling fully convinced that the settling of a regular mode of communication with the Court of Assistants is indispensably requisite for giving form and consistency to its proceedings, and for precluding the possibility of any misunderstanding arising between the two Courts, beg leave to state this opinion to the Court of Assistants; and to request that, in future, it will be pleased to order all matters relating to this Court to be communicated to it in writing, that the same may be entered on its minutes.

[No. II.]

(January 18th, 1816.—Carried.)

THAT, In the execution of its functions, it has become manifest to this Court, that there are numerous errors and defects in the Act for the Regulation of the Practice of Apothecaries, which militate against the declared views and intentions of the Society; and which are extremely prejudicial to the interests of the public, and various classes of the medical profession.

[No. III.]

(Same date.—Rejected.)

THAT a Memorial shall be presented to the Court of Assistants by this Court, expressive of its opinion, as contained in the preceding Resolution; and of its conviction, that a Committee, consisting of such persons as are most conversant with the provisions of the Act, is requisite; to revise the same, and to report thereon; and that the Court of Assistants will be pleased to order a copy of the said Report to be transmitted to this Court.

[No. IV.]

*Copy of Papers sent to the Court of Assistants,
(March 29th, 1816.)*

OBSERVATIONS ON THE APOTHECARIES' ACT.

SECTION 3.—Excepting as far as regards the examination and destruction of bad drugs, this section is nugatory; because, although a penalty of £5 is imposed for the first offence, yet it cannot be recovered from the error in drawing up Section 26.

SECTION 9.—The obligation for the Examiners to meet once in every week is objectionable, and may often be attended with great inconveniences. At any rate, there ought to be a discretionary power or latitude given, that the Court should not be obliged to assemble, whether there is business or none.

SECTION 12.—There should be power vested in the Court of Assistants to administer an oath to every Secretary to the Court of Examiners; that office being one of great trust and confidence.

SECTION 15.—The omission of a single sentence in this Section, renders the Act retrospective, and therefore unjust; in the clause in the original bill, after the words "that no person" there followed in a parenthesis ("except such as shall be actually bound by proper indentures, or shall have commenced a course of medical education, at the time of passing this Act.") The restoration of this sentence, and referring the operation of it antecedent to August the 1st, 1815, would rectify this unfortunate and grievous oversight.

As few youths, apprenticed to Country Apothecaries, have opportunities of acquiring a proper knowledge of the fundamental principles of their profession, the imposing of a term of five years is manifestly injudicious, and tends rather to prevent than facilitate their proficiency.

SECTION 16.—To comply with the provisions of this Section an evasion of the letter of the Act must be practised, or the Master, Wardens, and Society must meet weekly; for otherwise, *their Clerk cannot signify to them*, the notices of persons intending to qualify.

As this is the only duty imposed by the Act on the Clerk of the Society, and may be wholly dispensed with, a trivial alteration of words would obviate the difficulty.

SECTION 17.—This Section is altogether nugatory, from the error in Section 26, as is proved by the experience of six months since the passing of the Act.

SECTION 18.—This also is nugatory until Section 26 is corrected; nor could it be carried into effect if that Section were perfect: because,

1st, Monthly Meetings of Country Examiners of Assistants are enjoined, whether there is business to transact or none.

2nd, No fund possessed or acquired under the Act, would be adequate to remunerate respectable practitioners of ten years standing, for acting as Examiners.

3rd, As there is no provision to induce them to act voluntarily, and nothing can compel them, such offices will never be executed.

There is no mention in the Act of any person to whom Country Assistants are to apply, when desirous of examination. The 16th Section refers to those, only intending to practise as *Apothecaries*.

SECTION 20.—The greatest presumed offence of which the Act takes cognizance, is, practising without examination and a certificate of competency; and yet the fine imposed is £20 only on persons so offending, while by Section 5, the non-compounding of a Physician's prescription, or unfaithfully compounding it, makes such offender liable to information before a Magistrate, punishable by pecuniary fines equally large, and, moreover "be rendered incapable in future of using or exercising the art and mystery of an Apothecary!" Now this is inflicting for the minor, a punishment infinitely heavier than for the major offence; contrary to sense and justice, and the custom of the English law. The degree of penalty in this Section (20) should be regulated by the enormity of the offence committed. Either the penalties here are too trivial, or in Section 5 they are excessive.

This Section also imposes a penalty of £5 on every Assistant acting without a certificate. But no penalty attaches to persons for employing them without this proof of their having conformed to the Act.

SECTION 22.—No person is mentioned to whom a candidate should apply, who is desirous of re-examination.

SECTION 26.—From the omission of two words this Section, as far as regards the recovery of penalties or forfeitures of the sum of £5 or under, which particularly applies to assistants, is nugatory. The 9th line should have the words, in the parenthesis, added, "and if such penalty or forfeit shall amount to (or be) less than," &c.

This defect actually makes void all penalties on Assistants; and is probably one reason none have yet applied for examination for a certificate.

SECTION 28.—It is generally conceived that this Section does not prevent those who were Druggists and Chemists, before the passing of the Act, from prescribing and practising medicine. As that was most assuredly the intention of the Legislature, all obscurity of the meaning of this Section should be removed.

If any information or action were brought by the Society against any offender for practising as an Apothecary without a certificate, it has been suggested by good authority that a question might arise of the meaning of practising "as an Apothecary," and what the real functions are of a person so denominated.

Does practising, by visiting and prescribing for the sick without a licence from the College of Physicians, or the mere keeping of a shop for the dispensing of Physician's prescriptions and the compounding of medicines, constitute a lawful Apothecary?

If this question cannot be answered positively, an amended Act should guard against such a question being ever raised; by reciting specifically, and defining what is the practice of an Apothecary.

There are several other errors, of lesser importance perhaps, which cannot fail of presenting themselves to a committee of persons well conversant with the provisions and omissions of the Act.

(Signed) G. M. BURROWS.
March 26th, 1816.

63, Gower Street,
March 28th, 1816.

GENTLEMEN,

WITH the accompanying paper, containing my observations on the Act, which I was requested by Mr. Simons to draw up, I cannot refrain from offering some remarks; but which I submit with due deference to your judgment and correct intentions.

Undoubtedly there may be many more defects in the Act than I have discovered; but I presume that I have pointed out sufficient to shew, that it is not defective only, and consequently is inadequate to the objects it professes, but that it is positively oppressive on several classes of the Medical Profession.—That it is retrospective is clear, and that this effect was never contemplated by the Legislature, nor by your Court, nor by the general Committee of Associated

Apothecaries, &c. is equally manifest; as appears on the authority,—1st, Of the Bishop of Peterborough, by whom the 15th clause which renders the Act retrospective, was restored;—2nd, From the circular printed "General Outline of a Bill," which was issued under your implied authority, and which declares that, "In this bill every retrospective effect is particularly guarded against, not only with respect to persons already in practice, but also as it relates to those who have already commenced their medical studies, so that no possible injury can occur to either of them;"—and 3rd, From all the documents of the General Committee, wherein all retrospect is most carefully avoided.

It is true, this unfortunate effect was not the result of design, but of haste. But is that a reason why the Society should refuse, or procrastinate, applying to Parliament, to amend an enactment which absolutely excludes hundreds of innocent and meritorious individuals from the practice of a profession, to the exercise of which they have been regularly educated? Can the Society hesitate, when honour, good faith, and humanity point the way?

At this crisis, Gentlemen, if a declaration of your resolution to amend the Act be declined or even delayed, I feel it incumbent on me, as a member of the Society, to endeavour most seriously to impress on your minds some of the consequences that will probably ensue.

The several parties aggrieved have hitherto been deterred from petitioning Parliament, either to repeal or amend the Act, solely from a firm reliance on the integrity of your Court, and the expectation that redress would emanate from the same source as that which has so undesignedly involved them in their present difficulty. Should they be deceived in their well-founded expectations, and coalesce, and petition Parliament, it would be under a deep sense of wrongs; and the General Association, which, when in full confidence of the liberal views of your Court, was passive and acquiescent in the power and administration being placed in the hands of the Society, would become most dangerously active; and exert every means to withdraw all authority from it, and attempt at least to establish one independent on it. The experiment might be fruitless; but it would be expensive to all parties; and ought on every account to be deprecated. To oppose such a combination, and such an attempt in Parliament, would cost the Society incalculably more than soliciting a new bill, if it meet with no opposition.

Many of the imperfections of the Act were forcibly urged in the House of Peers, and the Lord Chancellor, through whose powerful support alone it was at length carried,

candidly admitted them. But he remarked, that the suitors of the bill (the Society of Apothecaries), being aware of them, would naturally bring in another to amend them. The observations of the supporters or of the opposers of the measure did not apply to its retrospective effect. Neither party was apprised of it. Had it been discovered, the bill would then have been inevitably lost.

The Society therefore, in my humble opinion, is by implication pledged to Parliament and the public, to introduce a bill to amend the former; and that in the present session.

And this plea might with great truth and much point be stated as a ground for bringing it forward as a public bill; which, if allowed, would throw all the charges on the public of carrying it through Parliament.

If there were no other objections to the Act than its unjust retrospective operation, the Parliament, the public, and the profession would acknowledge the propriety of an immediate application to correct so glaring an evil; and the Society would acquire, by adopting such a line of conduct, that credit and approbation it would so amply merit. If the application be the result of necessity or compulsion, the Society will lose all claim to public confidence; and will risk the introduction of provisions into any future Act both derogatory and injurious to it.

Permit me, Gentlemen, to add, that the truths I have taken the liberty to represent to you, and the arguments I have adduced, originate in the purest motives; that the prosperity of the Society of Apothecaries, of which I have the honor to be a member, is ever the object of my sincere regards; and that no one has a greater personal respect for the Court which presides over it, or is more anxious to uphold and keep from reproach the high character with which the Legislature and the profession have recently invested it.

With the extent of my obligation to the Society I am fully impressed: but I also know that the obligation is reciprocal. Nor must I forget that in acquitting my debt to the Society, I owe also a duty to the public, which is paramount over every other consideration.

I am, Gentlemen,

With the greatest respect,

Your obedient humble Servant,

(A Copy)

G. M. BURROWS.

To the Master, Wardens, and
Society of Apothecaries.

[No. V.]

Apothecaries' Hall, May 3, 1816.

At a Meeting of Assistants held this instant.

RESOLVED,

That the Surgeons and Assistant Surgeons of the Army and Navy, whose warrants of appointment bear date previously to the 1st of August, 1815, are considered by this Court as at that time Practising Apothecaries, and that it is not therefore necessary for them to undergo an examination, and to receive a certificate from this Society.

J. BACKLER, Clerk.

[No. VI.]

Court of Examiners, June 13th, 1816.—*Rejected.*

THIS Court having seen with sincere regret that many of the candidates who have presented themselves for examination are exceedingly deficient in the knowledge of those sciences which are essential to the profession of the Apothecary; and entertaining an anxious wish to promote their improvement, and conceiving the exciting of a due spirit of emulation among medical students is most likely to attain so desirable an object,

MOVED,

That a respectful representation of the foregoing opinion of this Court be made to the Court of Assistants, accompanied by a recommendation, that a Prize be annually offered to the author of the best practical Essay, on some one of the sciences which constitute the course of examinations of candidates for a certificate to practise as an Apothecary.

[No. VII.]

Copy of a Letter from G. M. Burrows, M. D. a Member of the Court of Examiners, to the Court of Assistants of the Society of Apothecaries.

Laid before the Court of Examiners Oct. 3rd, 1816.

Gower Street, October 2nd, 1816.

GENTLEMEN,

HAVING been appointed by you a member of the Court of Examiners of the Society of Apothecaries,

and a circumstance having occurred in the execution of that duty, which renders an appeal to the Court of Assistants imperative upon me, I beg leave to state the case for your consideration and decision.

A candidate of the name of ——— applied on the 12th ultimo, to the Court of Examiners, to be examined for a certificate to practise as an Apothecary.

He stated that he had been bound apprentice as a citizen and ironmonger, in the year 1807, for seven years, to a Mr. ———, chemist and druggist, of ——— Street, that his indenture was in the Chamberlain's Office; but that his master had given him the following certificate, which he produced :—

"I hereby notify to whom it may concern, that ———, was bound apprentice to me on the 3rd day of November 1807, for the term of seven years; that during the said period he conducted himself to my satisfaction; that he was in the habit of dispensing medicines, and making preparations in pharmacy, under my directions, and that he is of a good moral conduct."

London, 18th of June, 1816.

Half the members of the Court, including myself, objected to Mr. ——— being admitted to examination; upon the ground that he had not served an apprenticeship to an apothecary, as the Act directs; and therefore could not claim under the Act to be examined. The casting vote decided that he should be admitted to examination. I then offered a formal and written dissent; founding my objection on its being an illegal proceeding.

A proposal to postpone deciding the question of examination for a week, was also rejected.

As I considered the proceeding as contrary to law as it was to policy, I refused putting my signature to a certificate, granted under such circumstances; and the reasons that influenced my determination are,—

1. That the candidate had served his apprenticeship to a chemist and druggist, and not to an apothecary.

2. That the master's certificate did not set forth, or assume that he was an apothecary; but a mere dispenser of medicines.

3. That a dispensing chemist and druggist, who neither before nor since the passing of the Act, ever called himself or wrote upon his house *Apothecary*, is not an apothecary, nor can his apprentice claim as such.

4. Because whatever doubts might have prevailed formerly, as to who were or who were not apothecaries, none

can exist now; since the committee of the House of Commons would not grant the prayer of the petition for the late Act, until evidence had been examined that apothecaries had from time immemorial visited and prescribed for the sick: and unless satisfactory proof of that fact had been adduced before them, the Act which expressly enjoins the Court of Examiners to examine all apothecaries touching "*their skill and abilities in the science and practice of medicine*" (see Section 14) would never have passed.

5. That the said master is not an apothecary, is also clear according to the usage of the Society; for his shop is exempt, by former custom as well as by the Act itself, from the inspection of the Society's Examiners; nor has it ever been examined by the College of Physicians, although it has remained in its present state for thirty years past.

6. That no apprentice who had served this master, or any other chemist and druggist, would be admitted to purchase his freedom of the Society; which, if I am rightly informed, always require indentures of apprenticeship to a member of the Society or to a regular apothecary.

7. The chemists and druggists opposed the bill, and procured the introduction of a special clause (see Sect. 28) to free them from being considered apothecaries, and from being subjected to the provisions of the Act.

8. That the Court of Assistants have themselves sanctioned the opinion that dispensing druggists and chemists were not apothecaries.

9. That the Court of Examiners have themselves also decided that persons serving an apprenticeship to chemists and druggists solely, have no right to be examined or to practise as apothecaries.

Lastly, If it be established that dispensing chemists and druggists are *legal* apothecaries, the Court of Assistants cannot by virtue of any bye-law refuse any chemist or druggist admission into the Society after having received a certificate as a qualified apothecary.—Thus a precedent might be introduced, that may prove subversive of the Society itself as a body of apothecaries.

These gentlemen, are not merely my arguments; but they embrace the opinion of the best legal authority I have been able to consult. But as the legal opinions to which I allude, could not be received, as they did not come through the official and regular channel, I submitted a motion at the last meeting of the Court of Examiners, that the Court of Assistants should be requested to take counsel's opinion on a subject so delicate and important; in order that the minds of all the Examiners might be correctly informed, and

the consciences of the majority of them be satisfied whether they are acting right or wrong. But this question was also negatived by a casting vote only.

Failing therefore in my attempt to lay this case before your Court in the more consistent way, my only resource is, to make a personal appeal for advice to guide my future conduct on any similar occasion.

If the law be otherwise than I have been taught and interpret it, however much I may lament the defect in the Act, it is my duty to submit and conform to its enactments; but having at present a quite opposite impression, I feel it equally my duty as a member of the Court of Examiners until instructed by legal authority to the contrary, to firmly resist, by every fair means, all attempts to admit candidates having served dispensing chemists and druggists only, to an examination. Neither will I sign the certificate of any such candidate.

I therefore most respectfully solicit from the Court of Assistants an early intimation of their pleasure on the subject now proposed to them.

I have the honor to be,

Gentlemen,

Your obedient humble Servant,

(A Copy)

G. M. BURROWS.

To the Master, Wardens, and Court of Assistants of the Society of Apothecaries.

[No. VIII.]

DISSENT.

At a meeting of the Court of Examiners of the Society of Apothecaries, held on Thursday the 12th of September, 1816, at Apothecaries Hall, London,

Mr. ——— who had served an apprenticeship of seven years to a Mr. ——— chemist and druggist, of ——— Street, which apprenticeship expired in 1814, presented himself as a candidate to be examined for a certificate to practise as an apothecary: to which the undersigned member of the said Court objected; and presented a paper, signed with his own name, to the chairman, declaring that, as the said Mr. ——— had not served an apprenticeship to an apothecary, as the Act directs, that the examination of such candidate was contrary to the law.

That the dissent of the undersigned having been refused an entry on the minutes of the Court, and being well advised that his objection to the said examination was both just and legal, he now demands, in his place, as a member of the Court of Examiners, the immediate entry on the minutes of this Court of this his formal dissent to the examination of the said Mr. ———

(Signed)

GEORGE MAN BURROWS.

*Apothecaries' Hall,
September 26th, 1816.*

[No. IX.]

Copy of a Letter to William Simons, Esq.

Gower Street, Nov. 26th, 1816.

DEAR SIR,

It is now nearly two months since I had the honor, in the capacity of a member of the Court of Examiners, to address a letter to the Court of Assistants; to which I respectfully solicited an answer—a return to which I had before conceived, every member of the Society was entitled who applied to the Court on a subject strictly relevant to the interests of the Society.

Possibly you may feel at liberty to acquaint me, whether the Court have come to any determination of affording me the information for which I have applied. But I beg to be understood as not to be wishing to press you on a point, which, considering your high situation as Master and member of the Court of Assistants, you may be precluded from offering.

I am, dear Sir,

Your's truly,

(A Copy)

G. M. BURROWS.

[No. X.]

To Dr. Burrows.

DEAR SIR,

I am surprised and sorry for the request to me contained in your note of yesterday: it will be necessary previous to my giving you the satisfaction required to pre-

vail on the Court to absolve me from the oath of secrecy taken on my admission into that Court.

I am, dear Sir,
Sincerely your's,

WILLIAM SIMONS.

*Soho Square,
November 27th, 1816.*

[No. XI.]

Copy of a Letter to William Simons, Esq.

Gower Street, Nov. 27th, 1816.

DEAR SIR,

When I had expressly stated that I begged not to be understood, as pressing on you an answer inconsistent with your duty as the Master, or as a member of the Court of Assistants, I can see no reason for your feeling or expressing any surprise at my request.

I also have a duty to perform, and a duty to which I have solemnly sworn to strictly perform. Where then is the impropriety for being anxious to receive that information which is to be my future guide in the right execution of a duty imposed upon one by the body to whom I appeal?

Had I attempted meanly to dive into the deliberations of the Court of Assistants, or to artfully induce one of its members to betray his trust, it might have occasioned surprise and sorrow. But my question was simple, open, and gave full time for consideration. I merely asked, whether the Court would afford me the information I had solicited; and for this be assured I feel nothing to regret.

I am, dear Sir,
Your's truly,

(A Copy) G. M. BURROWS.

[No. XII.]

Apothecaries' Hall, 5th March, 1817.

SIR,

I am directed to inform you that at a Court of Assistants of this Society, held on the 28th day of January last, "It was ordered that you should be desired to attend the next Court of Assistants."

In compliance therefore with that order I beg leave to acquaint you that a Court of Assistants will be holden at

Apothecaries' Hall, on Tuesday, the 25th day of March instant, at 2 o'clock precisely, at which time and place you are desired to attend accordingly.

I am, Sir,

Your obedient humble Servant,
EDMUND BACOT,
Clerk of the Society.

To Dr. G. M. Burrows.

[No. XIII.]

Extract from the Rules of the Court of Examiners.

SECTION 3, RULE 3.—Every motion ————— that *personally relates* to any member or officer of the Court, shall be decided by ballot.

RULE 4.—No member to have a vote in any Court upon a motion or question which relates to, or concerns himself.

SECTION 7, RULE 2.—Every motion ————— that *personally relates to any member*, or officer of the Court shall be written and read by the Master, and be given to the secretary; but the same shall not be taken into consideration until the next, or some subsequent meeting.

RULE 3.—No resolution shall be considered to have been adopted by the Court, until it has been confirmed at a regular subsequent meeting, except as to certificates for candidates.

[No. XIV.]

March 25th, 1817.

GENTLEMEN,

I find it is impossible any longer to act as a member of the Court of Examiners of the Society of Apothecaries with advantage, either to the public or to the Society: for that reason, and from the respect which I feel is due to my own character, I beg leave to decline the office of an Examiner.

I have the honor to be,
Gentlemen,

Your humble Servant,

G. M. BURROWS,

To the Master, Wardens, and Court of Assistants of the Society of Apothecaries.

[No. XV.]

*Letter to William Simons, Esq. Soho Square.**Brompton, June, 1815.*

DEAR SIR,

Understanding that the bill so long the object of our persevering exertions, has at length received the sanction of Parliament, I presume we may congratulate each other on an event so peculiarly gratifying; and which by the benefit it will progressively confer on our branch of the profession, will amply reward us for what trouble we have had in obtaining it.

A legislative enactment that enforces education and examination of the pretensions of all who hereafter mean, as Apothecaries, to undertake the charge of the public health, must be acceptable to all classes of society.

It is true other regulations were contemplated, in my opinion, very important, but these have been wisely for the present relinquished; for it was evident that by persisting in them the primary object of our solicitude which is attained would have been endangered. But although we have thus bent to the weight and peculiarity of circumstances, yet a ground work has been laid, upon which, when matured by experience, improvements may be made, and those essential parts now omitted be ultimately established. Throughout the progress of this bill I have felt convinced that in the conspicuous and active share you have taken to promote it, you were actuated by the most liberal and enlightened views; and I entertain no doubt, that as far as your decision and personal influence extend, in carrying the powers which this Act confides to the Court of Assistants into execution, that you will confirm the impression myself in common with others have of your intentions.

I know that you think and feel with me, that the Legislature, the medical public, and the associated Apothecaries, have entrusted the Court with these new and extraordinary privileges for the good of society at large, the improvement of science, and for promoting the respectability and prosperity of our branch of the profession; and not for the aggrandizement or advantage of any particular individuals, or body of persons. The public will naturally be intent on the first acts of the Court, under the authority of this bill, and by those acts they will be judged.

You will not be surprised that I should take a deep interest in the manner with which the new functions of the

Court will be exercised. To you therefore I shall speak with the openness and freedom to which I think I am entitled, as one who has zealously co-operated in accomplishing this measure, and who feels conscious that its operation will be rendered beneficial or nugatory, according to the spirit with which it is adopted.

We know from experience that persons long acting in corporate capacities, instinctly acquire a bias, and are apt to consider the members of their own body every thing, and those out of it of less importance. I consequently dread, lest the Court of Assistants, forgetting for a moment that the public has invested them with these new and important powers for its own service and advantage, and not exclusively for that of the Company over whom only they have hitherto had superintendence, will select the examiners solely from the members of the original body. By original body, I mean the Society. It should be recollected that, in future, as every examined Apothecary will have a certificate from the Society, such individual Apothecary will in fact be, and have a right to style himself a member of the Society of Apothecaries, as every licensed Physician or certificated Surgeon is of the College of Physicians or Surgeons; although such members can have nothing to do with, nor will they be, as a matter of course, a part of the corporation.

It may be asked, if I conceive a competent Court of Examiners cannot be chosen from the present Society? I answer in the affirmative: but I will contend, that by going out of the corporation, a better Court might be formed; for neither you nor myself will presume that that body engrosses all the best informed, who practise as Apothecaries in London and its environs. I hold it therefore to be imperative, as far as public duty can be so on the Court of Assistants, to be guided at all times, but especially in their first choice, by a liberal interpretation of the Act; and evince to the world, and to every branch of the profession, their real attachment to the cause of science, and of their devotion to the public welfare.

If unfortunately the Court of Assistants should determine otherwise, it may be justly suspected that they have been moved by motives less honorable and enlightened than those which the public at present is disposed to ascribe; and their future actions, however wise and pure, will be derided, and the character of the Court of Examiners they may appoint will be robbed both of dignity and effect.

Besides, if practitioners not members of the Society see a selection so partial, will it not excite just feelings of repugnance and perhaps of resentment? The Court would by so

doing virtually annul some essential provisions of their own Act; for as the examinations of country shops and assistants is not compulsory, what respectable practitioner will voluntarily aid in executing functions that will be deemed subordinate, for a body so prejudiced? Beyond thirty miles of London, there are not perhaps thirty members of the Society resident in the whole kingdom; and the Court cannot be sure that even they would act. It may be said that it is meant to require those who undertake their services; but are such as are moved by pecuniary considerations only the "persons properly qualified" for these responsible offices?

It should be remembered too, and ought to be urged, that the associated Apothecaries of the whole kingdom, in their first meeting in November 1812, and in all their provincial meetings, acquiesced in the propriety of appealing to the constituted medical bodies to apply to Parliament: through them alone they sought redress and regulation; nor did they wish any authority to be erected independent on those already existing. When their just request was repulsed by all the medical bodies, they were compelled *pro forma* to introduce in their proposed bill some form of an examining body; and until under that necessity, no fourth body was ever contemplated or desired by them.

By the perseverance of the association; by their influence with their representatives in parliament, and the public; by the expenditure of a thousand pounds of that fund they had raised, which paved the way for the present Act, that would otherwise have cost the Society treble the sum in procuring it, they have mainly contributed to an enviable extension of the powers, patronage, and resources of the Society. If a system of exclusion be adopted to those who deserve so much, what may not be said? Are there not numbers who will report, whether true or false, that the Society know every man, if not by his merits, may become a member of the corporation by paying the admission premium?

In offering these sentiments I am quite certain I write those of the majority of the members of the Society itself, and of the committee with whom I have so long acted. The latter, for whose opinions I can best answer, have too high a respect for the Court of Assistants to express their wishes in a manner derogatory from that feeling; but I make no doubt that they will make a representation to the Court on the subject; and I think you will agree with me, that their conduct throughout this arduous struggle entitles their opinion and wishes to every respect and consideration.

Do not, my dear Sir, imagine that I have any private views to advance by this communication. I never have

had nor ever will have predilections when I am pursuing an object on public grounds. Your judgment in arranging this bill, and laudable anxiety to carry it through every impediment, are well known, and are duly appreciated by us all, and no doubt are in an equal degree by the Court of Assistants, of which you are so useful a member; and all feel that you must be sensible that the credit of the Court will be stamped by their decision on this question. The merits of this act of justice will be their own, if promptly executed; for the application of the Committee will be frustrated by being anticipated, and this appeal to you will be consigned to oblivion. If unhappily neither reflection nor argument prevail, in pursuance of a public trust confided to their charge, the committee will have the very unpleasant task of reporting to their constituents such efforts as they may have collectively and individually used, and in vain, to induce the Court to adopt a course which policy and sound sense so obviously dictate. What odium thence attaches must lay with the Court.

What I have advanced is the *argumentum ad judicium* with the truth of which I expect that you will coincide. Were I to appeal *ad passiones*, there is also a point that strikes me that may be worthy of your reflection, although to me a very inferior object: still as a member of the Company I will mention it.

I have always understood it was not considered particularly desirable to increase the number of the Company by holding out extraordinary inducements to enter it. If the Court of Examiners be never composed of any but such as are members of the corporate body, and if that situation prove one of emolument, will it not allure, for the chance both of the honor and profit, a prodigious influx of members? To attempt to prevent this by an instant rise of the premium would be very invidious, and excite much animadversion. Were one or two of the twelve Examiners not of the Company, by keeping open the door to the possible admission of non-members, this effect would be diminished, envy and jealousy be suppressed, and your bill will really be what it is intended—a bill for the protection of the public against impostors, and for the improvement and benefit of our class of the profession throughout the kingdom, and over which the Court is now to preside and watch. The importance of the crisis will be the best apology for so long a letter.

I am, dear Sir,

Yours, very truly,

G. M. BURROWS.

[No. XVI.]

On the New Regulations of the Practice of Apothecaries, &c.

"To the Editor of the Morning Chronicle.

"SIR,

"From the perusal of the very interesting account of the Anniversary Meeting of the Society for the Relief of the Widows and Orphans of Medical Men, in your paper a short time since, a doubt cannot exist but that you are as much the friend to Medical Science and its Honourable Professors, as you are known to be to Science in general. You seem, Sir, fully impressed with the utility of the Medical Profession, and the important services it renders to society; and to justly appreciate the benefits derived from the labours of the well-educated and experienced Medical Practitioner, whatever be his rank, and the evils that consequently result from the machinations and practices of the ignorant pretender.

"But although there be some enlightened persons who entertain similar views; yet it is astonishing, considering how intimately the interests and happiness of mankind are involved in every thing that affects the state of Medical Practice, that such total indifference should be evinced to the import and operation of the Act, passed in the last Session of Parliament, for the better regulation of the Practice of by far the most numerous class of Practitioners—the Apothecaries.

"As this apathy can be ascribed to no other cause than to the want of information of the real objects of that measure, it is my present design to obtain that attention to the subject it ought to receive; and to point out, that it enforces an appropriate education, and competent professional knowledge in every Apothecary, before he is allowed to undertake the charge of visiting and administering to the diseased.

"Hitherto any person might practise Physic in any part of the kingdom, under the denomination of Apothecary, without education, or any proof of his abilities. Consequently, much mischief ensued; for the public having no guide to direct the judgment, could not discriminate between the competent and incompetent. Hence, too, the regularly educated and respectable Practitioner suffered in reputation by the arts and mal-practice of those who assumed his name and character.

"To prevent such impositions in future, and to secure Medical Practitioners, in whom there might be just confi-

dence, the Act alluded to was solicited, and passed. It appears to effectually provide against the recurrence of such abuses.

"By this Act it is provided that,

"1. Every person intending, after the 1st of August 1815, to commence practising as an Apothecary, must undergo an examination by Twelve Examiners, appointed by the Society of Apothecaries, "to ascertain his skill and abilities in the science and practice of Medicine," and to grant a Certificate that he is duly qualified to practise.

"But, previously to examination, each candidate must produce testimonials that he is of the age of twenty-one, and that he has served an apprenticeship; has a competent knowledge of the Latin tongue; has attended certain courses of Lectures on Anatomy, Physiology, Chemistry, Materia Medica, and the Theory and Practice of Medicine; and that he has attended a stated time to the practice of a Public Hospital. The actual examination of the Candidates attainments consists—1. In translating the Latin Pharmacopœia of the London College, and Physicians' Prescriptions; 2. In Pharmaceutical Chemistry, 3. Materia Medica, or knowledge of the natural and artificial substances used in the cure of diseases, their virtues, doses, &c.; 4. Physiology, or the science which treats of the actions and powers of the animal body; 5. Of the knowledge of diseases, and of their treatment; 6. It is intended that Botany, a science so indispensable to a correct knowledge of Materia Medica and Pharmacy, shall form a part of the examination; but the Court of Examiners, being aware how little it has hitherto been cultivated, it is understood, waive it for the present, in order that students may have an opportunity in the ensuing summer of studying it.

"II. Every Apothecary is bound, under severe penalties, faithfully to make up and compound the prescriptions of physicians of the London College.

"III. Every Apothecary's shop is open to inspection, as to the goodness of his drugs, preparations, &c. by Examiners appointed for that purpose, who may destroy the same if of bad quality.

"IV. Every person practising as an Apothecary, without the certificate of examination, is liable to a penalty of twenty pounds each time he visits or prescribes medicine for the sick.

"V. Such persons so acting without the certificate, cannot recover any charge for medical advice, attendance, or medicines, in any court of law.

"VI. No person can act as an Assistant to any Apothecary,

for compounding and dispensing medicines, without examination, and a certificate of his competency.

"VII. For the information of the public, a list of every certificated Apothecary, and his place of residence, must be annually published.

"Such are the principal regulations of this Act, and of those who are appointed to carry it into execution; from which it is manifest, the public welfare is very properly the first object, while, when in full operation and effect, the Apothecary acquires no other advantage than protection from the intrusion of impostors into his profession, and a recognition of his right to the character and privileges of a lawful medical practitioner—a distinction just and politic, and surely merited by that class to whose care and skill the health of nine-tenths of the population of the British Empire is committed.

"The dispensing chemist and druggist petitioned Parliament against the Bill, and are exempt from its operation; and are therefore not subjected to any test of their competency to make up prescriptions and dispense medicines; or to any inspection of the qualities of their drugs, &c. and are consequently, in this respect, absolutely without superintendence or control. But if they prescribe medicines for the sick, they are then liable to information and prosecution, and the penalties for such offence.

"If these important enactments be faithfully and fairly executed, they must prove highly satisfactory to all ranks of society; and, I think, every one will coincide in opinion, that this Act is one in which the public have the highest possible degree of interest, and that they ought to be acquainted with its purport.

"The chief objects also of the Surgeons' Bill, which was introduced so late in the last Session of Parliament, and withdrawn for amendment, were to prevent persons from exercising the art of Surgery in any part of this kingdom, without examination and approval by the College of Surgeons, excepting those already in practice.

"Unfortunately, the Apothecaries' Act is not so perfect as could be wished; a fault certainly not to be imputed to its authors—for, from various regulations and amendments introduced by the Peers, it was, when returned, rejected by the Commons, and therefore had twice to pass through both Houses. The consequence was, that there being barely time to get it through in that Session, some errors that were discovered in it could not be corrected. But the Lord Chancellor observed, that it was in principle an excellent measure, and considering it rather an experimental one, its defects

and omissions, when fully ascertained, could be easily amended at a future period.

"Perhaps no stronger evidence can be adduced of the inadequate education and unfitness, generally, of young men intending to practise physic, and hence of the necessity for these regulations, than the few candidates that have applied to the Court of Examiners of the Society of Apothecaries for examination of their qualifications. Not more than twenty have offered themselves; yet there are many hundreds of pupils in the London Hospitals, otherwise eligible, but not possessing a competent degree of knowledge to become candidates.

"It is reported that on two examining days lately at the College of Surgeons, 103 candidates passed; and received the diploma! It is evident the testimonials of eligibility, and the subjects of examination being different, that a candidate may pass there with great éclat, who has not the requisite qualifications for the examination at Apothecaries' Hall: thus, the former may be crowded with applicants, while the latter has few; owing to a conscious deficiency in those sciences that constitute the course of examination at the Hall, and, perhaps, a wish to acquire the knowledge of them previously to presenting themselves. If the last be really the motive, it assuredly is very commendable. But, I fear, and indeed positively know, that many students have imbibed a notion, that if they possess a Surgeon's Diploma, they may legally, and with impunity, practise physic, without the certificate of an Apothecary.

"As this impression is most erroneous, and might prove exceedingly injurious to many young men intending to settle, whose pecuniary means are commonly very scanty, it cannot, for the sake of the public, as well as of those so erring in judgment, be too soon noticed and refuted. They who commenced practice as Apothecaries, since the passing of the Act, without certificates, are—

- "1. Ineligible to any public appointment.
- "2. Are liable to certain fines and penalties, according to the fourth, before-cited, provision.
- "3. They have no legal claim for any remuneration: and whatever be the amount of their book-debts, should any practitioner become obnoxious to his neighbours, the whole of this property will be endangered.
- "4. They risk the degradation of their professional character and reputation.
- "5. The probable compulsory relinquishment of business, when they have incurred the expence of settling, to comply

with the regulations which the law and the Court of Examiners of the Society of Apothecaries have imposed*.

"The British Legislature has at length enacted some provisions to guard the public health from the practices of the grossly ignorant. On public grounds purely I have noticed and detailed some of the most important of the enactments, and made them the subject of animadversion and explanation; and as a caution to those individuals most immediately concerned, and from motives of humanity, I have set forth some of the evils they will incur, who choose to set at naught and violate institutes so wise and patriotic.

"I am, Sir, yours, &c.

Nov. 29, 1815.

"PHILO-MEDICUS.

* There are two other dilemmas to which those entering into practice since August 1st, as Apothecaries, and acting without the certificate, will be exposed:—1. That having no real designation or rights, any contract of co-partnership with a legal Apothecary would be liable to be vitiated, at the pleasure of the partner practising before the passing of the Act, or having a certificate:—and 2. such pretended Apothecaries will have no exemption to plead from serving on juries, lects, or parochial offices.

FINIS.

Printed by J. Bennett, Rupert Street, Haymarket, London.

CURSORY REMARKS

ON A

BILL

NOW IN THE HOUSE OF PEERS

FOR

REGULATING OF MAD-HOUSES,

Its probable Influence upon the Physical and Moral Condition of the Insane, and upon the Interests of those concerned in their Care and Management:

WITH

OBSERVATIONS

ON THE

Defects of the Present System:

By GEORGE MAN BURROWS, M.D. F.L.S. &c.

"Whenever a subject becomes so interesting as to draw to it the consideration of the public, if it is not already perfectly clear and comprehensible in itself, they will soon make it so:—that is, if their senses cannot be brought to comprehend the subject, they will adapt the subject to their senses. Hence it happens, that popular opinions on abstruse matters are generally wrong, and that popular theories very frequently fail when applied to practice."

"C'est une expérience éternelle, que tout homme qui a du pouvoir est tenté, à en abuser; il va jusqu'à ce qu'il trouve des limites. Qui le droit! La vertu même a besoin des limites."—Montesquieu.

LONDON:

Published by HARDING, St. James's Street;
LONGMAN, HURST, REES, ORME, and BROWN, Paternoster Row;
And CALLOW, Crown Court, Soho.

Price Four Shillings.

1817.

CURSORY REMARKS
TO
THE ROYAL COLLEGE OF PHYSICIANS
IN LONDON,
THE CONSTITUTIONAL GUARDIANS
OF
THE PUBLIC HEALTH,
AND
THE ONLY PUBLIC BODY
WHICH,
BY REASON OF ITS LEARNING AND EXPERIENCE,
IS TRULY COMPETENT
TO ARRANGE AND CARRY INTO EXECUTION
AN EFFICIENT PLAN
FOR
THE AMELIORATION OF THE CONDITION
OF THE INSANE,
THESE CURSORY REMARKS
ARE,
WITH THE GREATEST DEFERENCE AND RESPECT,
INSCRIBED,
BY
THE AUTHOR.

Entered at Stationers' Hall.

Printed by D. N. SHURY, Berwick Street, Soho.

TO
THE ROYAL COLLEGE OF PHYSICIANS
IN LONDON,
THE CONSTITUTIONAL GUARDIANS
OF
THE PUBLIC HEALTH,
AND
THE ONLY PUBLIC BODY
WHICH,
BY REASON OF ITS LEARNING AND EXPERIENCE,
IS TRULY COMPETENT
TO ARRANGE AND CARRY INTO EXECUTION
AN EFFICIENT PLAN
FOR
THE AMELIORATION OF THE CONDITION
OF THE INSANE,
THESE CURSORY REMARKS
ARE,
WITH THE GREATEST DEFERENCE AND RESPECT,
INSCRIBED,
BY
THE AUTHOR.

62, Gower Street, Bedford Square;
April 30, 1817.

THE ROYAL COLLEGE OF PHYSICIANS

IN LONDON

THE HONORABLE SOCIETY OF

PHYSICIANS

AND

THE COLLEGE OF SURGEONS

OF LONDON

AT SESSION OF HIS RESPECTIVE AND JOINT

IN THE YEAR 1815

IN THE CITY OF LONDON

AND IN THE PRESENCE OF HIS

HONORABLE SOCIETY OF PHYSICIANS

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

OF LONDON

AND THE COLLEGE OF SURGEONS

CURSORY REMARKS,

&c. &c.

AN INQUIRY has been instituted by Parliament into the state of Mad-houses and Maniacs throughout England and Scotland. This act justice and humanity and the national character demanded. The House of Commons voted a Committee for this object especially; and gentlemen of rank, property, and talents, zealously devoted themselves to this painful, but necessary, investigation. In the course of two sessions of Parliament, several Reports containing the minutes of evidence were published; the matter of which has excited a very high degree of public feeling.

As a consecutive measure, a Bill was brought forward during the last session for the regulating

of Mad-houses throughout Great Britain: the reasons why it did not then pass into an Act are foreign to the present purpose; but they who were best able to appreciate the bearing and probable effect of its various provisions, could not but rejoice that it was postponed, in the hope that delay would render it more perfect by affording time for dispassionately reflecting upon its general import.

Accordingly, in February last, a new Bill was brought into Parliament; retaining the principles of the former, but with some additions.

The title of the present is the same as that of the former Bill. It may be right to premise, that it enacts that the Acts of the 14th and 55th of His present Majesty be repealed, "*save and except as to any fine, penalty, or forfeiture, for or in respect of any offence committed against the provisions of the said Acts; and the recovery thereof, in any case in which the same could not be recovered under the provisions of this Act:*" whence I presume, that the penal enactments of the former Acts are still in force, in addition to those which the present contemplates: and this ought always to be borne in mind.

I shall quote the sections or clauses most requiring notice; but, as they are not numbered in the Bill, I must refer to the pages; adding such remarks as each particular section may demand;

and reserve the more detailed observations for the conclusion.

See the Bill, Page 2.

"And in order that proper persons may be appointed for licensing such houses as may be kept for the reception of lunatics, other than lunatic asylums before mentioned, and visiting such houses and all public hospitals, within that part of the United Kingdom called England; Be it enacted, that His Majesty's Principal Secretary of State for the Home Department, shall annually on the last day of September in every year, or within ten days then next following, appoint eight persons to be Commissioners for that part of the United Kingdom, of whom four at the least shall be Fellows or Licentiates of the College of Physicians in London or Edinburgh, as Commissioners for granting Licences within the said part of the United Kingdom, and for visiting the several houses therein for the reception of insane persons within the same, and all public hospitals for the reception of such persons, in such districts or divisions in England as shall be allotted by His Majesty's Principal Secretary of State, so that there shall be two of such Commissioners appointed for each district, one of whom shall be a Physician, and shall also appoint a person to act as Secretary to the said Commissioners at their General Meetings; and the said eight Commissioners so to be appointed, shall be and are hereby declared to be Commissioners for granting Licences within the said part of the United Kingdom for the year then next ensuing; provided that two at least of the Commissioners to be so appointed shall be persons who have not acted as Commissioners for the preceding year; and that no person whatever shall be capable of acting as a Commissioner for more than four years, unless he shall be specially authorized for that service by a new appointment from the Principal Secretary of State."

It must be objected to this plan, that, the

districts will be of too great extent, and therefore must occupy the Commissioners a great length of time in traversing and inspecting; that the expence of travelling will be enormous, although the Commissioners even reside within their own districts; and that as the Commissioners ought either to make several visitations in the course of a year, or their office will be nugatory; therefore no Fellow or Licentiate of the College of Physicians, or Member of the other branches of the Faculty, or any other individual of character and education, will accept of an appointment that must effectually bar all progress in their respective professions and occupations.

A very young physician is not a proper person to execute the office; those in the meridian of life and of good repute probably will have other avocations, and will not accept it; unless it be both permanent, and adequately remunerative for the sacrifice of their views in life, and to the trouble and domestic privations they must endure. Indeed it is quite impossible that the Commissioners can be only temporarily in office: their duties may be suspended for a year, if it be thought prudent, but their salaries must continue; for, how can they accept an occupation which deprives them of all other professional sources of income, and leaves them unprovided every intervening or third or fourth year?

Page 3.—Another section follows, authori-

zing the Secretary of State to appoint six Commissioners, in addition to those nominated for the several districts, for *visiting* only, all public hospitals and licenced houses for the reception of lunatics; but they are to "derive no profit or emolument whatever" from acting under this authority!

This is imposing a very distressing duty; which few country gentlemen will be able to execute in a manner satisfactory to themselves, or to the objects of their inspection.

Page 4.—In the oath or affirmation of the Commissioners, there is a very proper prohibition: viz. "*that I will not directly or indirectly give notice or cause notice to be given to the keeper or person having the care of any house or hospital for the reception of lunatics of the time of visitation of such house or hospital.*" This, if strictly observed, will prove of great service. Men of honour, such as these Commissioners ought to be, will not disregard it. And if visitations were, as now, confined to London only, and were exercised by a corporate body like the College of Physicians, they might be kept secret; but visitations by district Commissioners can never be concealed. When their tour is commenced, intelligence of it will precede them at most hospitals and houses; unless, which is scarcely possible, the Commissioners were to assemble on different days, and visit each day

an asylum in an opposite direction. The inconvenience of such a course, as well as the additional expence, points out that no other mode can be pursued than by progressive visitations; and these cannot be concealed in the country.

Page 4.

"And be it further enacted, that the Justices of the Peace assembled at their respective General or Quarter Sessions of the Peace to be holden for any county or place within that part of the United Kingdom called *Great Britain*, are hereby authorized and empowered to nominate and appoint two of the Justices acting for the County, Riding, Division, City, or Place, within which any such licence or licences shall be granted, to visit and inspect, and who by virtue of such appointment and nomination are hereby authorized and empowered to visit and inspect in the manner herein required, such houses as shall be licenced within such district; and all hospitals for the reception of insane persons within the same; and the said Justices so nominated and appointed, shall be and they are hereby required, with or without the Clerk of the Peace or his Deputy, as they shall think fit, to visit and inspect every such house or hospital, wherein four or more lunatics shall be confined, twice at the least in every year, and every such house or hospital where less than four lunatics shall be confined, once at least in every year; and they are hereby authorized in like manner, at any other time or times, to visit and inspect every such house or hospital within such district, as often as they shall think necessary; and such Justices so visiting as aforesaid, shall have at all times, and may use and exercise such powers and authorities in visiting and examining any such houses and hospitals, and the premises thereto belonging, and the persons confined therein; and also, in examining upon oath the keeper or keepers of such houses and hospitals, and the attendants therein, as are by this Act given to the Commissioners under this Act."

There is another clause of a similar tenor (page 11), requiring that two of the Commissioners shall visit and inspect all such licenced houses or hospitals twice in the year, and whenever desired by the Great Officers of the Crown, &c. with powers for examining similar to those given to the Magistracy, &c.; and with the addition, that they may also examine *the persons confined as lunatics therein, and, upon oath, or affirmation, the keeper or keepers, and the servants or officers of every such house or hospital, and the attendants therein, in such manner as they shall think proper*; which oath the said Commissioners, or any one of them, is empowered to administer! These are very great and extraordinary powers — powers, to which, perhaps, no British subject was ever before exposed.

Page 6.—It is enacted, that any keeper who shall be refused a licence, or who may have been judged to have forfeited his licence, and thinks himself aggrieved, may appeal to the next General Quarter Sessions of the County or Division in which the house shall be situate; and he is to give sufficient securities to abide the order and award of the said Court; and the said justices "shall, in a summary way," finally hear and determine the said appeal; but no proceedings "shall be quashed or vacated for want of form, or be removed by certiorari or by any other

writ or process whatsoever, into any of His Majesty's Courts of Record at Westminster, or in Edinburgh, or elsewhere," &c.

A strong prejudice against mad-houses of every description has always prevailed. It has been raised, by the late inquiry, to a pitch which is felt to be operating extremely to their injury; and it will be a long time, if it be ever entirely removed. The instant a complaint, however trivial, against a mad-house becomes public, a violent clamour in the neighbourhood ensues; and the story soon assumes the utmost possible aggravated form, and invariably influences the minds of all ranks throughout the whole county. Even justices cannot guard themselves against these impressions; and the illiterate persons who often compose a jury at a Quarter Sessions, are of course infinitely more likely to come into court prejudging the cause. Is a court, so composed, the best for giving an impartial verdict upon an appeal made by a superintendent, whose licence has been refused or suspended by the Commissioners or Justices empowered for that purpose? Perhaps a worthy man's fair name, and property to a large amount, and all his future prospects in life, depend upon the decision. Surely, therefore, there is great injustice in denying him access to a court out of the sphere of these local prejudices! And yet by this clause, the

only court where justice may be suspected, is the only one which is open to him, and from which there is no appeal!

Let it also be remembered, that the superintendent of every mad-house will be subject to the malicious accusations of his discharged, and, perhaps, guilty servants: and from the character of these people, there can be no doubt that through their means he will never be free from the expense and trouble of vindictive litigations. The Act gives power for the plaintiff to seek justice in any form or in any court that he chooses against the superintendent; but it denies the latter the same advantage! Surely this is not equitable.

Page 7.—Another clause declares, that before any licence shall be granted or transferred to any keeper of any house for the reception of lunatics, he, with *two sufficient securities*, whereof the resident apothecary (if any) is to be one, are to give bond for payment of the sum of £300. with the condition, that if the lunatics confined therein shall "*be humanely, carefully, and properly attended to; and such keeper or keepers shall observe and perform all such orders, directions, and regulations as the said Commissioners, or any two of them shall, by virtue of this Act, direct to be observed and performed,*" then such bond is to be void.

Who is to be evidence that the lunatics

have been humanely, carefully, and properly attended to?—the lunatics themselves and the servants?

When the extent and nature of the obligations of these keepers are known, where are they to find securities? What apothecary, who has no other interest in the concern but his salary, will be so foolish as to be bound for the conduct of others at the risk of his own ruin? Can the most honourable, correct, and best intentioned, promise those friends who might be sureties, that under such conditions their bonds would not every day be liable to forfeiture? This is a virtual prohibition against any honest man undertaking the office of a superintendant, or against any one, who himself is not mad, hazarding property in such establishments.

Page 8.—It is enjoined, that there be "*a good supply of water, and a pump belonging thereunto.*" What is the special object of providing a pump is very equivocal. If it be meant to afford facilities for the lunatic to drink, *ad libitum*, it must be observed, that it may, like every thing else that gives a discretion to him who lacks reason, be highly detrimental to him.

Page *ibid.*—Any three of the Commissioners are empowered to direct what *height, width, and length, the apartments are to be in any house* hereafter to be licensed; and what alterations

shall be made in any house already licensed. Nay, more: they may determine the time within which such alterations shall be made! It is easy to conceive the abuses to which this power may lead, and the ruinous consequences to the proprietors.

Page 10.—It is enjoined that one of the persons at least concerned in any licensed house, shall personally superintend the management of every such house, *at all times*, during the continuance of the licence.

Sometimes there is only one proprietor, and he a medical man. He cannot, perhaps, reside in the house; consequently cannot, at all times, superintend it; because—first, the profits of a house, of this description only, is rarely enough to maintain a medical man, without other practice; and, second, there is no class of the medical profession more liable to be summoned to visit insane persons at a distance, or to be summoned on judicial cases, than gentlemen in this line of practice; and these engagements sometimes detain them for several days. In cases, therefore, where there is only one proprietor, how can this provision be complied with?

Page 12.—There are seven queries to be put by the Commissioners upon their entering every house or hospital:

Query 2: "*Whether there are as many servants as are sufficient for a due and necessary*

attendance on the number of patients in the house or hospital, regard being had to the state of the patients?"

How are the Commissioners to obtain this information?—from the servants of the establishment? or from the insane patients? Will not the former, in order to lessen their labours, complain there are too few? and the latter, in the hope of easier escape, or of meditated mischief, alledge that there are too many? To judge of the adequateness of attendance from the number of patients only, would be most fallacious: the state of the patients is the only criterion; and that varies every day, nay every hour. Of the proportion of servants which there ought to be to the patients, no casual visitors can ever accurately judge.

Query 5: "*Whether medical aid is afforded to them for their MENTAL complaints?*"

To this no person can return an answer, but the medical attendant; for, although medicines may be administered, yet they may have been prescribed for corporeal complaints. "Mental complaints" is a term which admits of much cavil.

Query 6: "*Whether bodily restraint is used, except where there is a danger of the party injuring himself or others?*"

As it may be presumed no one but the superintendent, by whom all restraint on patients

is, or ought to be, ordered, can answer this question, his replies may be readily anticipated.

In truth, all these queries are superfluous; since many of them are such as naturally present themselves, and others are perfectly useless. Prescriptions of duty to those qualified to perform it, oftener impede than facilitate its execution.

Page 13.—If the keeper or attendants in any private house, or the servants or officers of any public hospital, "*shall refuse to be sworn,*" or answer such questions, &c. as shall be asked, &c. power is given to take away such licence, and a penalty besides is imposed upon the keeper!

Thus, if an obstinate or roguish servant refuse to convict himself, by keeping silence when interrogated by the Commissioners, the master may be fined, and have his licence taken away: in other words, may be ruined by the contumacy of the servant.

Page 14.—In the clause specifying the medical characters who should be allowed to sign the certificate, after the words "Members of the Company of Apothecaries in London," "practising as such, or Licenced Apothecaries," should be inserted—Because the Members of that Company do not average one in twenty of the Apothecaries in the kingdom; and several of them are not, nor ever were, of the medical profession; and, lastly, because many assume the name and

functions of an Apothecary, who have not been examined and licensed according to a late Act of Parliament for the better Regulating of the Practice of Apothecaries.

But why should the signatures of two physicians, surgeons, or apothecaries, be required in London, when that of one will suffice in the country? If two are indispensable in the London district, the words should be, "or of a physician and a surgeon, or an apothecary." Suppose a poor insane person in London is attended by one apothecary; he must call in another apothecary, or two physicians or two surgeons, for one of either will not satisfy the law. Where are poor people to find the means of discharging so heavy and unnecessary an expence?

Pages 15 and 16.—There are two clauses respecting persons who take *one* insane patient only into their houses; but they do not meet the case.

The number of the insane who are provided for in this manner is inconceivable; but they are under very different circumstances. There are some who are slightly or only occasionally deranged, that board with the families of medical men, or with others equally respectable; and these persons generally enjoy every comfort and attention which their peculiar cases require; therefore a very tender course ought to be pursued in regard to visiting those so situated, lest the families receiving these unfortunates should

take alarm, and the patient be deprived of a refuge so consolatory to his feelings and conducive to his happiness. There are others placed out with persons who are exceedingly unfit for so confidential a charge, and require a very strict supervision: but of these more hereafter.

There follow several clauses enacting the registry of patients, the time of admittance, by what authority, the length of time they have been confined, deaths, cures, discharges uncured, numbers of patients in the house, ages of patients, and a very minute account of other particulars; of which it may be very necessary for a physician to be informed, and which it may perhaps be very important for the Commissioners to know: at the same time it should be recollected, that if a superintendant of a moderately large establishment properly attends his other duties, he cannot be accurate in these particulars, without the neglect of others equally important; or be at the expence of a clerk, to keep the various entries and registers with the required minuteness.

Page 19.—"It is enacted, That it *shall* be *lawful*, in every case where a physician, or other medical person, shall have certified to the insanity of any person, for such physician or medical person to examine the patient at the end of the year; and so at the end of every future year."

Is it meant that such visits would be *at any time unlawful*? or that such examination may not take place whenever the friends of the patient desire it? If it were made imperative, it, in most instances, could not be complied with; because the patient is frequently removed a considerable distance from the certifying medical attendant: but if he were easily accessible, it might be impossible for the medical attendant to give a decided opinion upon a casual visit; although, when he signed the certificate, there might not be the least doubt of the insanity: and a stranger to the case would, of course, be liable to an erroneous judgment. This clause, therefore, is surely supererogatory.

Page 20.—It is said, "no agreement for the care and maintenance of any insane person shall be made for any other term than by the week, the month, the quarter, or for one year."

What other term, except a day, is there in the calendar? Contracts will surely never be made for the maintenance of insane persons for life; nor is it likely that any longer than an annual term will be agreed upon. The hazard attending any contracts beyond that period must at all times be too great to become common.

Page 20—21.

"And whereas it is not intended by this Act to give the keepers of any house so to be licensed as aforesaid, or any

other person concerned in confining any of His Majesty's subjects therein, any new justification from their being able to prove that the persons so confined have been sent there by such direction and advice as are required by this Act: be it therefore further enacted, that in all proceedings that shall be had under the writ of *habeas corpus*, and in all indictments, informations, and actions, that shall be preferred and brought against any person or persons for confining or ill-treating any of His Majesty's subjects in any of the said houses, the parties complained of shall be obliged to justify their proceedings according to the course of the common law, in the same manner as if this Act had not been made."

Hence it is evident that the proprietor or superintendant of any licensed house, besides conforming to all the regulations, visitations, expence, pains, penalties, forfeitures, losses, vexations, and traductions to which the former part of this Act will expose him, is also to be liable to all the litigious, and even criminal, proceedings to which he was before subjected by virtue of any pre-existing Act of Parliament.

Page *ibid*.

"Provided always, and be it further enacted, that no physician, surgeon, or apothecary, authorised to grant certificates as aforesaid, shall be subject or liable to any indictment, information, or action, for having given such certificate as is hereinbefore required; and no keeper of any house licensed under this Act shall be subject or liable to any indictment, information, or action, for having admitted, harboured, entertained, or confined any person or persons, as a lunatic or lunatics, by authority of such certificate or certificates, UNTIL the person by whose direction the person in question shall be

confined as a lunatic, shall have been first convicted of having unlawfully and without reason directed or caused such confinement to be made; any thing herein contained to the contrary notwithstanding."

The whole of this clause is extracted; because, although I have read it several times, yet I must confess I cannot comprehend it. Its meaning, as far as regards medical attendants, is clear; but does it not import that a keeper shall *not* be liable for having admitted, &c. a person as a lunatic, and who has been sent with a regular certificate? and yet that he *shall* be liable when the person who caused the lunatic to be placed under the keeper is convicted of having "*unlawfully and without reason directed or caused such confinement?*" and yet it says nothing of the necessity of a keeper knowing or participating in the transaction to constitute the offence! Either this clause is very loosely drawn, or it contains a very gross inconsistency.

I have referred to and slightly descanted upon those clauses only which are open to the most objection, passing over those which require no comment. Indeed, to comment upon this complicated Bill, containing above sixty clauses, would be as tiresome as useless. But it is impossible for one who has turned his attention towards the subject of insanity, and the moral and physical causes whence have sprung those great abuses which have recently been exposed,

to read this Bill without many serious reflections. However, although I admit reformation and future regulation to be requisite, and am aware that these can only be effected by the Legislature, yet I am deeply impressed with the total inefficiency of this measure: for it cannot accomplish the principal objects; viz. the improvement and amelioration of the condition of insane persons. It looks throughout at the effects of deranged intellects, without any consideration of primary causes. Those causes have been partly developed in the inquiry: but whether they who have undertaken to digest the evidence are mere theorists; or are influenced by persons who have some interested motives, and therefore are deceived; or whether they are really too little informed upon the subject, I cannot pretend to determine: but it is sufficiently manifest, that a most erroneous system is contemplated.

I will first attempt to expose some of the defects in the present system, whence the source of all the evils sprung; and next offer my objections to the measure proposed as a remedy to them. In doing so, I will endeavour to follow, as nearly as possible, the arrangement of the Bill; and conclude with a few hints, in the hope that they will contribute to more just and liberal views, and some real improvement in the management of insane persons.

The Commissioners.

The Secretary of State for the Home Department, instead of the Royal College of Physicians in London, is to be the executor of the trust this Bill confers. I am at a loss to conceive what advantage is expected to be derived by this alteration. A Secretary of State assuredly ranks too high to be suspected of abusing this important charge. Nevertheless he is, in my opinion, more likely to err in appointing Commissioners than the College; for he must be guided in his choice, not by his own judgment, but by the report of others; hence he is open to be influenced by political considerations, and those various intrigues which party is apt to engender.

Still As the Commissioners for visiting and licensing are designed to be composed in part only of physicians, the appointment of them by the Secretary of State for the Home Department may be the most proper. But although unprofessional gentlemen are to be deputed to execute this office, yet I am not the less persuaded that it would have been better that the Commissioners should have consisted entirely of the medical profession. The Members of the Colleges of Physicians of London and of Edinburgh are of course men of education and character;—quali-

fications, that offer the best warranty for the performing of all the duties of this office with judgment and impartiality. They are certainly the most competent to all that appertains to the physical state of the insane; and are as able as any other persons to appreciate their moral condition. Being also, from their professional habits, more accustomed to note those changes which disease, imperceptible to casual observers, makes in the constitution; they are consequently more likely to be correct as to the corporeal and mental state of each patient; and accurately to judge and compare it with any preceding visit. Civil Commissioners, therefore, unless in such matters as relate merely to the domestic economy of an establishment, must be deficient of many essential requisites which physicians possess.

The changing of Commissioners seems to imply a suspicion of their zeal or integrity. There can be little apprehension of a Commissioner relaxing or becoming partial in his duty, if he be remunerated in proportion to the responsibility and the trouble of his office. It may be said, security begets confidence and neglect; but if a power be vested to remove him upon proof of negligence, there will be little danger on this account. Changing will also be injurious, by preventing Commissioners from attaining that degree of knowledge of this Protean malady, and that tact which can be acquired

only by becoming familiar with insane people. These are advantages to be derived from actual experience only; and will render the possessor capable of forming the most correct and decided opinions, and of contributing the most beneficial services in the execution of this office.

Civil Commissioners ought not, on any account, to be residents of that part of the country in which the asylum to be examined is situated; for it is very probable they may be influenced by local partialities and prejudices; from which Commissioners especially should be entirely exempt.

None but those who have been accustomed to insane persons can be aware of the various ways with which they assail friends or strangers; nor of the arts they use to impose upon the judgment and excite compassion. If they are familiar with the person and connections of a Commissioner, the liability to deception is greater; besides, from inexperience of mental derangement, and the influence of private feelings, it is impossible to avoid erroneous opinions of the sanity of their minds. Visits also from persons whom they know, will renew that association of ideas, which the presence of any familiar object revives, and which it is the great object of insulation to dis sever. Thus there will be danger that the mad will be made more furious, and that the convalescent will relapse

into madness. This objection does not apply in an equal degree to medical men. It is a well-known fact, that mad people pay a great deference to the medical character; of which, every physician attending much on the insane sees constant examples.

The most experienced will acknowledge the liability of being deceived, even where frequent opportunities of judging of the sanity of the mind have occurred*. How then can those who are not only casual but unprofessional visitors pretend to decide upon any particular case, or prescribe any alteration, or condemn any mode of treatment, or proceed to such summary acts as the taking of evidence, or the discharging of a patient from confinement? If this be applicable to Medical Com-

* Dr. Latham's evidence strikingly exemplifies this fact: "The first time I was a Commissioner," says Dr. Latham, "we examined a house at Plaistow; there were two women confined, whom I thought were not insane: the keeper said they were, and that we were mistaken. We desired them to write to their friends to give them a trial: we were all of opinion that these women were improperly confined, and desired their friends would take them out. Upon our next visitation the following year, I had, of course, considerable curiosity to know what had become of these two people: one had drowned herself, and the other had hanged herself! So that if we suppose the patient is really sane, we feel a great deal of difficulty, and we must very often trust to what the keepers say."—See First Report, p. 113.

missioners, or to their colleagues, who may by degrees acquire a sort of technical knowledge, how much more forcibly does it attach to the interference of justices and other gentlemen, who must be totally unacquainted with the various features of deranged intellect, and who would therefore be likely to be influenced solely by feeling—the most dangerous criterion in all cases of insanity! The mischief to be apprehended from such interference is nothing to the Commissioner or an intrusive visitor; but might indeed be fatal to the patient himself, to his relatives, and to society at large.

The number of Medical Commissioners or visitors ought always to preponderate; for if any difference of opinion were to arise upon a question relative to the management or release of a patient, it were surely most proper that the medical opinion should prevail: although even that may sometimes be erroneous, yet it is always less likely to be so than that of inexperienced individuals, whose judgment must be very liable to err. One imbecile person in such an office, may render abortive the best intentions of his more capable or prudent colleagues.

Visitations.

But this Bill gives a discretion to many unprofessional gentlemen to visit, *when they*

shall think fit, and at all hours, asylums for lunatics, unaccompanied even by professional men. In the former Act, a physician was always to be with the visiting magistrates; and this ought never to be dispensed with. The visitations of country gentlemen to examine and see that the economy of an establishment, as far as regards its accommodations, state of repair, cleanliness, supplies, &c., may be highly useful; but even these could not be frequent without the hazard of great injury to the patients: and the danger of the visits would be great or small in a precise ratio with the number of them.

Although there is contradictory evidence upon the question, yet I believe it will be conceded, that the medical treatment of insanity is susceptible of as great improvement as the moral; such, at least, is the opinion of very competent medical testimonies. It may be asserted, and that without the least fear of contradiction from any medical authority, that if the insane be visited in the indiscriminate and judicial manner which this Bill invites and empowers, that neither medical nor moral remedies will be of the least avail; but that every place for their reception must, instead of an asylum where their minds will be soothed, be a complete Pandemonium.

Such regulations are only applicable to

those neglected abodes of madmen of which we have heard; but if attempted to be executed generally and upon all asylums, will certainly, instead of tending to ameliorate their condition, dissipate the faintest hope of restoring the insane to reason.

Indiscriminate visiting of the insane, both as to persons and time, has a very decidedly injurious effect upon them. Strangers to whom they are indifferent, provided they do not by any imprudency irritate them, are the least likely to affect them. The visits of relations and friends, even if they submit to controul as to the time of paying their visits, and observe the utmost circumspection, prove often of great disservice. But if gentlemen were to frequently visit them, examine their condition, hear their complaints, and be known, which is inevitable, to possess the power of releasing them from confinement, what will be the consequences? Quiescence must give place to agitation and violence; order to turbulence and insubordination; content to complaint; hope to disappointment. In short, every passion, which should be allayed or diverted, will be roused and brought into full action, and aggravate every case.

It may be said, that neither the number of the visitors nor of the visitations will be so many as to produce such effects. But where is the

security? Are there not several commissioners, visitors, and justices to be for this purpose specially appointed? And are not the Custos Rotulorum and the Knights of the Shire, &c. besides of every county, to have the liberty to visit whenever and at whatever hour they shall think fit, and inspect the whole establishment? Suppose, for a moment, that any of these constituted authorities demand admittance in the night, when the patients are retired to rest, and many of them, perhaps, under the influence of some narcotic; what dreadful uproar! what real mischief to the poor patients would ensue! In one moment, perhaps, all the cares and anxieties which had happily produced a state of convalescence upon some of the patients, would be frustrated! and it is more than probable that on many, incurable madness would be entailed. Who can say but some meddling, inconsiderate justice, presuming upon his office, might from ignorance, private pique, idle curiosity, or some worse propensity, interfere; and by so doing blast all prospect of the future happiness even of scores of his miserable fellow creatures!

The power given by this Bill of visiting insane establishments, is a most dangerous one, requires much more consideration, and it is sincerely to be hoped, that it will meet with great modification.

These objections regard only the effects the abuse of visiting may have on the minds of the patients; although the disappointment, which an honest superintendant may experience from the defeat of his endeavours for the recovery of those entrusted to his care, is no trifling matter; nor should the feelings or pockets of the patients' relatives be disregarded.

But of all the provisions respecting visitations, those which authorize the examination of LUNATICS confined in the house, and the *servants* of the establishment, upon oath, and that that oath may be taken in a summary way on the spot, before *one justice*, if more are not present, are perhaps the greatest anomalies in jurisprudence that have yet been exhibited. They strike at the reputation and property of the proprietors and superintendants of mad-houses in a most serious and alarming manner.

There are other evils besides to be apprehended from indiscreet visitations in those institutions where the recovery of the insane is attempted.

If insulation and classification of the insane be practised in public or private asylums, what will be the effect produced by these visits upon the patients?

The object of insulating an insane patient is intended principally to break that morbid association of ideas which connects the mind with familiar scenes, persons, and subjects; that

of classification not only prevents that exasperation of the disorder which improper admixture of patients under its different forms produces, but, if judiciously arranged, is a very efficient means of recovery.

One species of insanity may require insulation; another, diversion only from the subject of hallucination: the moral treatment necessary may be quite opposite in these cases as well as the medical; but it may in all be highly requisite to guard against particular impressions. Great progress may have been made towards convalescence after years of frantic raving, of melancholy despair, or from being in a state almost of fatuity. Every look, every word should then be watched by the attendants; and if they have any sense, and their duty at heart, they will then direct the vacillating ideas of the patient, and guide the first dawnings of his returning reason. This is the epoch, when the utmost judgment and delicacy is to be exercised. It is the very crisis of the patient's fate.

The humane and skilful superintendant is, perhaps, on the point of seeing the fruition of all his cares and anxieties; and is anticipating the restoration of the faculties of his charge, and the well-earned remuneration for his trouble and his cares; the relatives and friends of the patient, from the depth of despondency, when bereft of the affection of a parent, a brother,

or a child, by so cruel a calamity, are raised to the utmost pinnacle of hope and expectation: When lo! comes a fatal visitation—the patient must not be denied—he must be examined as to the sanity of his mind—the fatal chord is touched on which depends the harmony of his mental with his corporeal frame; a tremendous explosion follows, and in one moment, the toil of months is destroyed:—the wavering reason is irremediably lost, and sometimes for ever!

Such will be the consequences of indiscriminate, intrusive, or imprudent visitors—such have been the consequences according to the evidence of the most experienced and credible persons*. They may not be frequent; but if ever they happen at all, it will be sufficient to deter any superintendent from taking extraordinary pains to facilitate a cure, or any physician to attempt it; when there is almost a certainty that his exertions are liable to be defeated from the inaptness of the moral to co-operate with the medical plan of treatment.

Insane persons of the highest rank, who, from the sufficiency of their means, can afford every

* Il faut donc pour ces infirmes des établissemens publics ou particuliers soumis à des règles invariables de police intérieure, et l'expérience de chaque jour montre combien la plus légère infraction à ces règles peut devenir nuisible ou même dangereuse.—*l'Inel, Traité sur l'Aliénation Mentale, Preface, p. 5.*

facility, and who have a right to expect advantages in proportion to the sacrifices made, will be deprived of a fair chance of so great a blessing as the restoration of their faculties.

Upon patients of an inferior class, such indiscriminate visitations must also have very serious consequences.

If, through the superior intelligence of the superintendent, and the accommodations of the house, any classification of patients is instituted, this proof of good sense, humanity, and integrity cannot avail. Nothing can calm the minds of insane persons when subjected to the constant interruptions of strangers. And when they are aware that there will be frequent opportunities of preferring complaints, personally, to those who have the power of inquiry; and if they make good their story, even of discharging them, every establishment will be a scene of stratagem, deception, and malicious preparation for the expected visitation. All subordination will be at an end, and the superintendent and his keepers will lose all command over the affections of those whose reason is not entirely perverted. In short, to be obeyed, rule must then be enforced with a rod of iron; for all personal respect or attachment will, from that moment, cease; and if the superintendent dare, even for safety sake, exercise a rigid authority, he will be subject to censure, and perhaps, punishment from those very persons, who, *ex officio*, have

compelled him to act a part foreign to his nature and his conviction.

The examination of lunatic hospitals and houses should accord, not perhaps with what their superintendants profess, which, generally, is the cure of insanity, but with the real practice pursued in them; and the capabilities to promote that end. A very little discrimination will point out whether an establishment is appropriated merely for confinement, where nature is left to her own operations, or whether any physical or moral facilities are afforded for the recovery of the patients. If it be merely a place of confinement, the mode or frequency of visitation is less to be dreaded; but if it be conducted really on a plan for the recovery of the patients, the utmost forbearance should be observed.

The object of lunatic institutions being so dissimilar, it will readily be perceived, that if all were visited according to the same rules, or were inspected by persons incompetent to make the necessary distinction, great mischief must ensue. Visitations of public and private lunatic asylums therefore ought never to be conducted on analogous principles.

Lunatic Asylums.

A public lunatic asylum is generally under the superintendence of a committee, selected

from those who support it by their charitable donations; to whom all the officers are more or less subjected. Every officer, therefore, holds his situation during pleasure; and to those who elect him only, is he amenable for his conduct; and if he be unjustly attacked in the execution of his duties, they will defend him. If he misbehave or give offence, he may be dismissed. If he feel offence or find other cause, he may, when he pleases, retire. The obligations are reciprocal. If the superintendant act in a manner to merit censure or dismissal, his reputation may be affected, and his income suffer; but he has no property involved, and the injury is not irremediable.

But what, under similar circumstances, is the situation of the superintendant, which is almost synonymous with proprietor, of a private asylum? If he be accused, justly or unjustly, the expense of defence, and the obloquy too, for it is impossible for the superintendant of a mad-house to be accused, and obloquy not attach, falls entirely upon himself. If he be arraigned, and although it prove falsely, yet odium and injury will light upon him; and the proposed law affords him little chance of escaping condemnation: his character is tainted, and, consequently, the destruction of his property certain.

Hospitals are public or general property; private institutions belong to private individuals: the one emanates from and is supported by charity; the other is a mere speculation of certain monied persons, or perhaps of a sole proprietor, or is an asylum of a medical man for his patients. Of the first, the superintendant is the servant of the governors or directors of the charity: of the second, the superintendant is almost always a proprietor, and has a considerable property at stake.

It is therefore a very gross error in this Bill to class hospitals with private institutions. There is no analogy existing, but that both are asylums for lunatics. Hence that which may be a wholesome law for the one, may be greatly detrimental to the other.

In many lunatic public hospitals, safe custody and kind usage only can be attempted: indeed, often nothing more is professed; and any plan, moral or medical, with a view to recovery, is quite out of the question.

Most of the private houses are conducted upon a similar plan; while others are under an admirable arrangement and discipline, and strikingly evince the ability of the superintendants, and their good intentions.

Private asylums may be classed under four descriptions:

1. Houses which are kept by medical gentlemen, over which they have the entire controul, or within which they actually reside.

2. Houses of which neither the superintendant nor the proprietors are of the medical profession: these may be sub-divided into houses where the whole moral arrangement is adapted to promote any medical plan for the cure of the insane; and houses where security and good usage are principally professed, and where medical advice is never resorted to, except at the special desire of the friends of the patient, or for corporeal ailments.

3. Houses of medical gentlemen, and of others, that afford an asylum for one or two patients who do not require much restriction or confinement.

4. Houses hired by some under-keeper without licence, for the accommodation of one or perhaps two patients.

Scarcely more is required than to make this statement, to shew that the same rule of legislation cannot be appropriate to every class.

Many of these establishments are more numerous than hospitals: and although the superintendant of them be a man of character and humanity, who will neither tolerate an irregularity nor any unnecessary coercion, yet, too often, the recovery of the patient is considered to be at variance with his

interest; and he therefore confines himself to the mere letter of his duty. But this is not always the fault of the superintendant; for it is a melancholy truth, which I have too often experienced, that the friends of an insane person frequently object to the application of any medical means for the cure. Did the objection arise from want of confidence in all human aid to accomplish this end, it might admit of some palliation: but, unhappily, I am obliged to confess that it often has no such origin. The expence has been the sole object with many; but with others, I have reason to fear it has had a less excusable motive. Certainly, if the superintendant is inimical to a curative system, he will not regard the physician, nor adhere to his advice, whether recommending a regimen moral, medical, or dietetic.

In those houses which are the property of medical gentlemen, or at least that are under their immediate management, the recovery of the patient, if it be not a hopeless case, is always professed, if not practised. The reputation of these establishments therefore greatly depends, not only upon the moral conduct observed, but on a judicious application of such means of cure as the judgment of the medical superintendant directs.

Establishments for the insane sufficiently

large, first, to indemnify the proprietor, and next to support in respectability a family, require a length of time to form; a large sum must be sunk before any return is made; and a command of a considerable fund to conduct it to advantage is essential. It is easy to conceive that there is no species of property more precarious; because none depends so entirely upon contingencies, over which the wisest and the best have little controul. An unlucky accident, the carelessness or wickedness of a hireling, may in one day destroy the brightest prospect, and throw eternal obloquy upon the most correct character.

In one respect all private establishments are strictly alike: that is, that their prosperity depends on reputation; and if, by any means, accidental or designed, that be impeached, ruin is inevitable; for the odium of malversation will continue so long, even after the cause be removed, that the proprietor becomes bankrupt ere he can retrieve it.

Public asylums may be exposed, from similar causes, to a like stigma; but the consequences are not felt in the same way or degree by the individuals connected with them.

Abuses and great defects have been clearly proved to exist both in public and private institutions for the insane; and even in some of the former, where, from the constitution of the cha-

urity, such consequences seemed properly guarded against. Nor can it be denied that they may occur again, and the possibility ought to be met by suitable legislative provisions and restrictions. But, in admitting the necessity of something being done, I am not prepared to allow that what is proposed partakes either of wisdom or of humanity.

One might be almost led to conclude, from perusing this Bill, that there is a secret wish to suppress all private asylums for the reception of the insane. If such an impression obtain, it would be more honourable at once to avow it, and grant no more licences for them; and let notice be given to the proprietors that after a limited time they shall cease. But if they be deemed essential for the accommodation of the superior classes of insane persons, or if they really present advantages for the restoring of the insane, then a law ought not to pass which virtually must exterminate them. In this particular the Bill appears to me both impolitic and unconstitutional. Private asylums are as much private property as an inn or a hotel; with this difference, that the one is professedly for the entertainment of those who are unhappily bereft of their faculties, and the other for those who yet enjoy them.

The power of ordering such alterations and

additions to buildings as the Commissioners may judge expedient, is open to strong objections.

Every asylum, indubitably, ought to be large enough to afford such accommodation to the patients as is consistent with their health, comfort, and security. But such an authority ought not to be entrusted with any set of men; some of whom may, in their own persons or connections, have an interest in the projected alterations too strong to be subdued. And the danger of this power increases with the locality of the lunatic asylum.

If one of the Commissioners be an architect himself, who is so competent a judge of the convenience and state of repair of buildings? Or if a Commissioner, Visitor, or Justice, have any near and dear friend to whose interest he is attached, to what an extent might such influence involve the proprietors of lunatic asylums.

Were all the Commissioners physicians, there would be less probability of any collusion.

Surely, if a house be surveyed before a licence be granted, that, and the specifying in the licence the maximum of patients it should be allowed to receive, would guard against the danger of overcrowding it.

In a private house not only the number of the patients, but their rank, species of insanity,

state of mind, &c. are all circumstances ever changing, and inducing an alteration in the internal system of the establishment. Really, this power of altering buildings at the option of those who are but casual visitors, and who cannot be acquainted with, nor perhaps comprehend the reasons which dictate the arrangements in regard to the patients, must be a fruitful source of error and dispute, and of ruinous expence to the proprietors; and, after all, perhaps without any adequate benefit either to the moral or physical condition of the inmates.

It appears, that many of the private asylums especially are ill calculated, from their site and arrangements, for the reception of insane persons; and that more are contained in the rooms than their dimensions can conveniently accommodate. Likewise that the accommodations for exercise are not sufficiently extensive. These are great faults: but I know of none so difficult to rectify.

Perhaps there are not above one or two private houses for the reception of insane persons in the whole kingdom, that have been built for that special purpose. They are usually the deserted seats of persons of large fortune and establishments, or have been previously occupied as schools, &c. These have been altered or built to, as the number of inmates have increased. Defects there consequently must be, even in the best o

them; although many, upon the whole, are reported to be very commodious. The situation is sometimes certainly ineligible: they have been, perhaps, often abandoned by their former tenants on this very account; and hence, their value being reduced, facilities have been afforded to convert them into mad-houses.

But the proprietors of the largest asylums have usually commenced with small houses; unless where several persons of property have coalesced and opened an imposing establishment to attract, by its superior appearance and accommodation, a sudden influx of patients. Some have been established by medical men upon a plan well calculated for the purpose. Others have their rise in a practice before adverted to, of under-keepers boarding one or two patients in some lodging or cheap house, and, gradually augmenting their number, are at length enabled to hire larger houses, which finally grow into extensive establishments.

There is decidedly too much risk in the success of such an undertaking for capitalists to venture upon building houses for this express purpose, or to encourage the union of several persons so to do; for it is a concern that every one knows depends often upon the good conduct of a single individual, who must have the management of it. Few will therefore be found to enter upon so uncertain a speculation. Medical

men, in early life, never possess a superabundance of money; and, when they are more advanced, are generally fully engaged with other professional pursuits. When, therefore, any person opens a lunatic house, it must be commenced in the ordinary and cautious way of hiring one already built; and the same course must be pursued by all whose means are limited.

The impediments to the having of buildings exactly adapted for the reception, classification, and recreation of insane persons, may be pretty accurately conceived, when the estimates of an architect, who was examined by the Committee of the House of Commons, and whose opinion seems to have great weight, are considered. It appears that the cost of an asylum near London, for seventy insane *paupers*, would be about £18,000; in Yorkshire, near £14,000; that the Wakeful Asylum plan, with *all* the accommodation fit for the house, for 100 patients, near London, would cost about £33,000; in Yorkshire, upwards of £25,000! One intelligent superintendant of a private asylum states as his opinion, that the exercising grounds ought to be in the proportion of an acre to each patient: this ground should be surrounded by a wall twelve feet high. Add the value of 100 acres of ground near London, and the cost of a wall of this height and extent, to £33,000, (I will say nothing of the difference of an architect's cal-

culatation and the real expenditure,) for one hundred patients; and then let us judge of the practicability of houses being built purposely, by private individuals, for the reception of lunatics. From the Reports, it seems that one gentleman had under his charge between 600 and 700 lunatics. According to the scale laid down for one hundred, what would be the expence of purchasing land, and building, and walling grounds for his patients? Let it be remembered also that these calculations were for the accommodation of all ranks of patients. The superior ranks require still more room.

If therefore Commissioners have an unlimited power to object to the unfitness of premises, to order the enlargement and addition of rooms and grounds, &c. and if they are very fastidious, or happen to be influenced by any pique or partiality, expences might be imposed which could not be met, and would lead to the utter ruin of the proprietor. But upon the necessity of interference in this matter, I shall here briefly observe—permit none but proper persons to become superintendants, and the public will have more security for every thing being conducted as it should be, than from any intermeddling with the internal arrangements of those whose peculiar business and interest it will ever be to create a good name, and to preserve it.

Evidence against Superintendents.

Hitherto the house and property of an Englishman have been held sacred. A law which throws open an honest man's doors at any time and at any hour, before a suspicion is excited or a complaint made, is surely very repugnant to the feelings and to reason. But by this law also, his house is not only to be forcibly entered, and all his private affairs and concerns examined and exposed as if a suspected person, but his very servants are instigated, by an offer to them of half the conviction money, to inform against their master; and, upon the oath of such persons, a summary conviction may be pronounced against an upright and useful member of society. Nay, more; even lunatics, persons whom the law pronounces as *non compos*, who are neither cognizable by nor amenable to any law whilst they are insane, are to be encouraged to give evidence!—and against whom?—Why against those of whom they would gladly say any thing their weakness or malice can suggest, in the hope of being freed from the only individual in the world who they suppose is the occasion of their constraint and detention!

Perhaps it is the first time that servants of any description were invited by a public Act to inform against their masters; and yet,

strange contradiction! they themselves are to be liable to punishment, if they have the honesty to be true to their trusts. It is, perhaps, equally novel to empower justices to enter upon a person's premises at any hour or season, and, in a summary way, to examine and swear menial servants as to their master's actions.

Suppose such servants to be sober and discreet, can we expect them to be sufficiently informed, and able to truly appreciate the real principles which move a physician in his prescriptions, or a superintendent in his directions as to the treatment of maniacs? May not orders be issued by a superior, not only wise, but also proceeding from the most humane motives; and yet be in the opinion of an inferior, who knows nothing of the reasons that dictate them, cruel, wanton, or unnecessary? Is the master, whose judgment ought not to be questioned, and who is frequently obliged to take the most decisive steps on the emergency of a moment, to be deterred lest he should alarm or displease an ignorant domestic*? or is he to be obliged

* "C'est le chef de la police intérieure qui doit se montrer sous ces deux aspects différens, maîtriser les gens de service pour les faire concourir à son but; et que devient alors ce plan si sagement combiné, si une autre autorité intervient avec maladresse, et donne des impressions en sens contraire."
—*Esquirol*.

to enter into explanation to satisfy him, who should be in greater subjection than a servant in any other service, and serve "not with eye-service as men-pleasers," that he is doing no wrong? But if such servant, instead of "with good will doing service" happens to be, not only ignorant, but likewise negligent and cruel, for which he has been reprimanded, or perhaps discharged!—what then is the predicament of the master? This disgraced servant may lodge a complaint against him before a magistrate; the magistrates may enter upon his premises when *they think fit*, and, supported by the oath of a malicious, revengeful, and very likely perjured man, may cause the said master to be fined, and prosecuted, and finally to have his licence taken away!

It may be replied, that this is an extreme case, seldom likely to occur; that no magistrates would convict without thorough investigation, &c. To this I rejoin, 1stly, that it is not an extreme case: 2dly, that it would very frequently occur: 3dly, that magistrates, as well as other men, have their passions and failings, and may be deceived. Can any thing repair to the superintendant the consequences of a hasty and erroneous conviction? Of whom is he to seek redress?

They who proposed this mode of eliciting evidence against superintendants, are little

acquainted with the true description of the persons who act as keepers*, i. e. servants, whether male or female, in these establishments.

Under-keepers or servants, acting as attendants on the insane persons, I lament to say, are almost always taken from the lowest classes, are usually without education, and consequently are not possessed of very correct reasoning powers. This is a very melancholy acknowledgment, and will give pain to the humane and considerate; but in proportion to its truth, so does it strengthen the argument that the setting of these people up to be judges of actions, of the propriety of which, generally, they can have no conception, is a most absurd, nay a most dangerous, expedient.

Before any one sanctions so novel and preposterous a practice, let him ask himself what effect the knowledge of such a power would have upon his own household servants. Let him compare the services which a private family requires, and those which the attendance upon

* It should be remembered, that the word superintendant is here used where the Bill speaks of *keeper*. Keepers are properly the men who act as nurses of, and attendants on, the insane; female keepers are generally called nurses. Servants, under-keepers, or attendants, are with me synonymous. A superintendant is the master, and may or may not be a proprietor.

madmen demands. Is there scarcely any analogy? Would the same effects result from disobedience of orders? In fact, is it not too probable that menial servants in any situation would seek revenge, when they know it could be so easily gratified as by laying an accusation, supported by oath only, against their masters? Can any subordination obtain where such a law exists? "Les serviteurs," says a very competent judge, "doivent donner l'exemple de la déférence et de l'obéissance aux réglemens et aux chefs."

The weakness and impolicy of this provision can only be equalled by the absurdity of another included in the same clause. Lunatics are to be considered evidence also against their unfortunate superintendants!!

This really is so ludicrous, that I am very much inclined to believe it was suggested by some of the incurables. A madman certainly sometimes has lucid intervals; and during these intervals, it is true, he might be a credible witness; but how is any Commissioner, Justice, or other stranger, to ascertain whether such witness at the time any alledged overt act was committed, or at the moment of his giving evidence touching that act, was sane or insane? But the sanity of the witness is not hinted at—a lunatic is admitted to be unques-

tionable evidence! Perhaps this notable witness will be some poor maniac, who

*—was phrenzied by disease or woe,
To that worst pitch of all, which veers a reasoning show.*

Thus is the superintendant to be exposed: his character, and every thing that is valuable to him in life, is made dependent upon the caprice of visitors, who cannot be competent judges; upon the good-will of a set of mercenary, ignorant people, without whose services he cannot prosecute his concerns; and, lastly, upon the report of his mad patients, who have merely to be acquainted with their power, to deride and defy him whom they ought, for their own comfort and happiness, to consider omnipotent.

Is not this subornation of evidence? And is not this considered an illegal act? In what other light can such proceeding be viewed?

Why should a stretch of the laws be sanctioned by the Legislature to the oppression of one class only of British subjects? What have the superintendants of mad-houses done to deserve this indiscriminate severity? Why are they to be deprived of the liberty of exercising their judgment in their own affairs; or be placed under the domination not of one presiding and exalted authority, but of a heterogeneous assemblage of Commissioners, Visitors, Knights of the Shire, and Justices of every county?

Why are servants to be suborned and directed, with the mad inmates, to rule over him who ought to be their governor? Why is his character to be exposed to traduction without a fair opportunity of replication; and his property to spoliation, without that form of trial which is open to every other British subject? Why is he, in short, to be subject to mulcts, fines, pains, penalties, actions, confiscations, and imprisonment, more than other subjects of these realms? Has he dared to adopt a course of life repugnant to divine or human laws, that he should be the most obnoxious and degraded of all ranks? Truly he dares to devote himself to attempt the alleviation of one of the greatest afflictions with which Providence has visited human kind! He dares to devote himself to a life of care, of peril, of watching, and of eternal anxiety. He dares to be the associate and the guardian of him who is lost to himself, to his friends, and to society. And if a man of honour and of information can perchance be found to devote himself to an employment that can afford little real satisfaction, but from the conscientious discharge of a painful duty and the hope of a maintenance, is that individual to have the indelible seal of degradation upon his head, and all the odium of one who has forfeited his right to the respect of his fellow subjects, and to the protection of the laws of his country?

It may be urged, in justification, that where persons not possessing their mental faculties, and who are consequently unable to protect themselves, are confided to the charge of others, that the law should in a peculiar way extend its protection, and prevent the possibility either of their being misused while under that charge, or of being detained when there is no longer a necessity for it. This is undeniable. But on the other hand, if the enactments of this Bill should deter men of intelligence and character from devoting themselves to the care of the insane, what would be gained by these coercive and restrictive provisions?

It, therefore, resolves itself into a question: whether an act of Parliament which excludes professional gentlemen and men of intelligence will be the best preventive of the existing abuses; or, whether, by prohibiting none but professional and other properly qualified persons to be entrusted with the care of the insane, the same object would not be attained?

Superintendants.

The friends of humanity and melioration of the condition of insane persons, in the zeal of philanthropy, seem to forget that, while they are so solicitous to preserve them from cruelty and oppression, they are actually moving Parliament

to treat those who are to have the care of them without any feeling or respect. There certainly is as much impolicy as there is of injustice in this proceeding.

The provisions of this Bill induce me to conclude that I certainly misinterpreted the import of many of the queries of the Members of the Committee of Inquiry; for I was led to think that a conviction had arisen out of the investigation, that all houses for the reception of insane persons ought to be under the superintendence of men of character and ability, and particularly of medical men.

This indeed, as far as it could be done without violation to the rights of others, would be very desirable; and a field for observation would be thus opened, which might soon establish an improved view of the causes and the cure of mental derangement.

Medical men, of whatever class, will now, thank God! be men of education and information. I avow, and glory in it, that I have a very exalted opinion of the medical character in this country. Speaking of them as a body, they possess all those qualities which sound principles and education bestow; and, hence, that nice sense of honour which characterizes gentlemen. They exercise a liberal profession; and the services they render to society are of the first importance, and ought to be appreciated accordingly.

Can any one for a moment suppose, if such an Act were to pass, that men like these will ever condescend to accept a medical appointment to an hospital, where the recovery of the insane patients is expected; and where ~~his~~ ^{their} success, perhaps, would be judged by some arbitrary scale, to which, if it did not attain, the failure would tend to their discredit? Or will such men embark their property or professional character either in establishing or connecting themselves with a private lunatic asylum, when both property and character are at the mercy of strangers, many of whom may have much more zeal than judgment and discretion; of a set of servants who are more ignorant and roguish than almost any other; and of madmen whom God has deprived of the attributes of man, and the law of the rights of a citizen!

Already, if I am correctly informed, the recently appointed physicians to a hospital, of which much has lately been heard, have experienced the interference of overweening zeal with the medical department, in a manner that fully exemplifies its nature and effects.

That the outfit of a private establishment, upon a scale adequate to remunerate a professional man, must require a considerable capital, is evident. It must be equally clear, that no one professional man, who has a considerable fund, would ever embark it in a specu-

lation of this description. In fact, there are as few fitted by nature as by fortune for it. None but a Howard, a pure philanthropist, would by choice select this occupation. Hence private establishments for the insane generally originate with a combination of individuals, who form a joint stock fund, incited only by the prospect of large profits; but even these speculators look for reasonable security for their money. Will the physician or the capitalist enter into such undertakings when exposed, as I have shewn they certainly will be, to a controul that will defeat the professional views of the one, and the sordid hopes of the other?

If such establishments scarcely produced a maintenance for a family, and provided, with good management, a moderate competency for old age, while there was full latitude for the exercise of the judgment, what prospect will offer, were this Bill to pass, but immediate deterioration of property, and eventual disappointment?

Medical men rarely enter upon life possessing more than enough to settle them in practice. Some are so fortunate, perhaps, as to have something left towards their support till they have acquired an income from their profession. Did they possess in early life adequate property, there would be wanting the confidence which maturer age inspires; and this would be an obstacle to success in this line of practice: and

when they have arrived at a fit age, they generally are fixed in some other much more congenial with their feelings. There are, therefore, moral impediments to medical men establishing houses for insane people. If it be desirable that such establishments be under their direction, it behoves those who take an interest in the subject, not to devise greater impediments than are compatible with the honour and interests of men of liberal minds and of character.

Professional men may be engaged to attend lunatic hospitals and houses as well as upon any other medical duty, and they may discharge it in a manner so as to give satisfaction; but while they are under the direct influence and at the beck of others, their utmost endeavours to restore the minds of their patients to reason will be utterly abortive. With all these positive obstacles, and a state of absolute degradation, can any gentleman of the medical profession become the superintendent of a mad-house?

What are the necessary qualifications of a superintendent? They are such as are seldom found combined:—they are endowments of nature; not mere acquirements. He ought to possess an excellent understanding, the more cultivated the better, tempered manners, vigilance, courage, and great presence of mind. He should entertain a full impression of the Divine precepts

of pure religion, be practically moral himself, and enforcing it, by his example, upon those under him. Such a man, indeed, is rare. But if he be found, will he become a superintendent, and subject himself to the proposed law? Decidedly, he will not! If he combine with these requisites the knowledge of medicine, it must be a great additional recommendation: although, if actually living with and personally superintending the management of insane persons, it may detract somewhat from that inherent respect they usually have for the medical character.

Such are the persons only that ought to have the superintendence of the insane; and such should be encouraged by every possible incitement to undertake this important but never very desirable charge. And it is a fair inference, that if none but persons properly qualified and worthy had had the charge of mad-houses, the alledged instances of misusage, neglect, and of inadequate accommodation of the insane would never have occurred. Therefore, I apprehend that greater caution in this respect alone would be a simple and sure means of securing to insane persons all the attention and comforts which the nature and diversity of their cases require, and all the advantages their circumstances can afford.

When the testimonials are satisfactory, and a superintendent is established in his charge, he

should instantly have free scope for the exercise of his talents and his authority. Instead of laws being made to shackle and controul him, they should be stretched, if it were possible, to favour and protect him above all others.

A superintendent of a mad-house must be a despot or a slave; there is no medium. Like a despot, he must have undisputed sway; every thing must emanate from himself; and the happiness or misery of his subjects must depend on his personal qualities. If he be subjected to the tyranny or caprice of superiors, his hands and his actions are fettered; he is the slave of those placed over and of those placed under him; he will neither give satisfaction to the one, nor contribute any real benefit to the other*. He must also possess the entire confidence of the insane persons under his

* "Dans une maison d'aliénés il doit y avoir un chef et rien qu'un chef dont tout doit ressortir." Esquirol.

"Un des points capitaux de tout hospice bien ordonné," says Pinel, "est d'avoir centre générale d'autorité qui décide sans appel, soit pour maintenir l'ordre parmi les gens de service, soit pour exercer une juste répression contre les aliénés turbulens ou très-agités, soit pour déterminer si un aliéné est susceptible d'une entrevue demandée par un de ces amis ou de ses proches; ce juge suprême doit être le surveillant de la police intérieure, et tout est dans la confiance si le médecin ou tout autre s'écartera de sa fonction à des réclamations qui lui sont adressées, et à mettre sa volonté et ses ordres en opposition avec ceux du même chef."

charge; and, indeed, of all composing his household; for although the affections of the insane are generally perverted, yet most are susceptible of kind and candid treatment, and are often singularly correct in the performance of any promise. Fear is the last expedient that should be tried—" *Malus est enim custos diuturnitatis metus, contraque benevolentia fidelis vel ad perpetuitatem.*"

These are the qualifications which, in my opinion, superintendants ought to possess; and although we may not expect often to find characters so complete, yet it is an incumbent duty in no instance to dispense with what are of primary importance.

I fear the spirit that has pervaded the framing of this bill will be little disposed to concede confidence to those whom evidently it is meant to awe and intimidate; and yet it will not be denied that there are but few individuals who preside over lunatic establishments, possessing either those endowed or acquired qualities which fit them for the office.

If a medical man be appointed to attend an asylum for lunatics, and is not either proprietor or superintendant, and it is expected that medical means are to be used for the recovery of the patient, it is absolutely necessary that he should be entirely independent and uncontrolled in all his prescriptions. This I fear will not be easy to accomplish; and yet when he is ex-

posed to the interference of any and especially of a superior authority, he never can be successful in his practice.

The union of a medical man with any one not of the profession, and having an interest in the profits of a lunatic house, would be an absolute incongruity. The one, if he have those feelings which his education and his profession ought to infuse, will be exerting all his medical skill to restore those under his charge to their faculties, and consequently to their families; while the other, perhaps, having no other views than large profits, even if he co-operate in the moral treatment of the patients, will too often, if not openly yet covertly, thwart the best endeavours of his medical colleague to restore them to reason; because that would be diminishing the number of patients in the house. The cures which nature accomplishes must be submitted to; but the attempts of art he will condemn as worse than useless. And yet if the physician and the superintendant do not coincide in principles and views, the utmost possible confusion will ensue. Dr. Pinel seems particularly aware of this, and every where seizes occasion to extol M. Pussin, the superintendant of the Salpêtrière*, for his zeal and ability, and the cordiality of his co-operation.

* "Il n'est pas facile de résoudre la question générale relative à la concentration de l'autorité pour le maintien de l'ordre

But there is a description of superintendants, before alluded to, who, from their ignorance, callousness, and peculation, have done infinite mischief, and brought much odium upon all engaged in the care of insane people. These are under-keepers, who have undertaken, in their own lodgings, the charge of private patients. There is no greater abuse existing in the

dans un hospice d'aliénés, puisqu'on doit prendre surtout en considération le zèle et la capacité respective du médecin et du chef de la police intérieure: ils peuvent être dans les mêmes principes, vivre dans la plus grande harmonie, et alors le médecin qui a des vues élevées se repose entièrement, pour tout les objets de direction et de police, sur le surveillant général. Il peut aussi y avoir une extrême différence entre un surveillant très-habile et un médecin insouciant et très-borné dans ses vues, et dans ce cas le premier ne manque pas d'envahir toute l'autorité, comme un hospice très-connu en a donné long-temps un exemple remarquable. Comment donc établir des règles générales qui puissent convenir à des cas aussi opposés? Il n'est pas moins vrai que, quels que soient les principes de l'administration générale d'un hospice, quelques modifications qu'ils reçoivent des temps, des lieux et des formes du gouvernement, le médecin, par la nature de ses études, l'étendue de ses lumières, et l'intérêt puissant qui le lie au succès du traitement, doit être instruit et devenir le juge naturel de tout ce qui se passe dans un hospice d'aliénés, qu'il doit sans doute laisser l'exécution des mesures répressives au surveillant, sans jamais lui donner aucun signe d'improbation en présence des aliénés ou des gens de service, mais qu'il ne doit pas moins approfondir les causes des évènements tumultueux qui peuvent survenir, et en faire en particulier l'objet d'une communication franche et bienveillante."—See *Traité Médico-Philosophique sur l'Aliénation Mentale*.—Edit. ii. p. 224.

whole system of management of the insane; and, from *à priori* reasoning, it would appear not easy to explain how such people acquire the confidence of respectable persons to a degree to be so trusted. But it is not so difficult to unravel as might be imagined.

A male or female under-keeper or servant hires, no matter where, a furnished lodging or cheap house. Ignorant and low-bred, they indulge their propensities, being freed from the controul of a superior; and here, if so disposed, exercise the most unbounded tyranny over their unfortunate patients. And this goes on for a considerable time, perhaps, before the relations discover the abuse of their confidence. The facilities for obtaining patients by these people, are many. In the course of their service, either in the house of a patient, or in that of their master, where he may have been confined, they contrive to insinuate themselves into the good graces of the patient's connections; and, if possible, they also find opportunities of recommending themselves to medical gentlemen. If their conduct receive approbation, they are ever after on the watch for a relapse of the patient, and take care to claim occasionally the patronage of the medical attendant who visited him. By these arts, and by offering their services at a cheap rate, they get employment in some private family or their

own account; and when it is necessary to remove the patient, they often induce his relations, by the same temptation of greater economy, to entrust him to their sole direction. A desire to conceal the malady of their relation, perhaps from a fear that themselves may be suspected as partaking of it, and a false calculation of economy, easily tempt families to listen to the offers of these people; and medical gentlemen, who know but the most favourable side of them, too often are accessory to these contracts. I have known keepers, whom I have discharged for inhumanity and gross neglect, in a week or two afterwards have the care of a most respectable insane person; and that without the least inquiry respecting their character; and although months or years have elapsed since they were employed in the families of those by whom they are now trusted. It requires only a proper security that the keeper is worthy of confidence to prevent this cruel practice.

Hence it appears highly probable, that, under the operation of the new Act, no person of property or character will, in future, undertake the superintendence of a private asylum; and it is equally clear that those who are now embarked in that line, will, rather than subject themselves to all the vexations and hazard attending their present occupation, direct their property and attention into channels more pro-

fitable, or at least more secure; and where they will be suffered to follow the conviction of their own judgment, and enjoy the fruits of their honest labours uninterrupted.

What then will this promised Bill, which has occupied so much time and attention, effect? Will it create a superior, more enlightened, or more humane class of superintendants than those who now preside over these institutions? Certainly not! The man of substance will, neither on his own responsibility nor in co-partnership, risk any thing; and the man who has little or none, cannot, if he were willing, establish a house, such as the Commissioners will perhaps require before they license. How then will the condition of the insane be improved, either physically or morally?

Comparative Advantages of Public and Private Asylums.

There are who contend that public asylums might answer every purpose for the accommodation and recovery of the insane, resting their argument simply upon the proposition that large societies are most favourable to their restoration. If all asylums for the reception of a large number of patients were like that at Glasgow, or the Retreat at York, or La Salpêtrière at Paris,

and the governors and managers possessed the charity, discrimination, and discretion of the Society of Friends, or the ability and devotion of Dr. Pinel*, I should so far coincide as to admit that large societies present great advantages. But, if it be implied that the lunatic asylum with which every county is intended to be burthened, will offer superior advantages to private establishments, it is a position I must deny.

Unhappily, insanity is confined neither to rank, sect, nor relative happiness in life. Yet, in the placing of a lunatic, all these circumstances ought to be considered; and, if observed, will greatly influence the chance of recovery. It is not to be supposed that, as society is constituted, the friends of a lunatic of family or affluence would choose he should be the inmate of a place supported by public benevolence, even a

* It is impossible to speak of this excellent and venerable Physician, without joining in that tribute of respect which all Europe awards him, for the services he has rendered to society by his *Observations upon Mental Alienation*. A friend of mine, who knows him well, writes—"M. Pinel still constantly resides in the Hospice (La Salpêtrière), and daily visits his patients, whom he treats with a truly fatherly kindness; and it is an exquisite mental gratification to see how much the study, the care, and the assiduous researches of this celebrated Physician, have succeeded in dissipating the horrors of the situation of those unhappy sufferers, and in shedding around them a ray of hope of a better futurity."

although they knew he would have a distinct and suitable accommodation: neither should it be forgotten what would be the feelings of that patient when enjoying lucid intervals, or when he became convalescent, upon discovering where he was confined.

Insanity is well known to sometimes effect its own cure; and therefore in any situation, where the common offices of humanity are exercised, there will a number recover: but I think it will never be contended, nor am I acquainted with any document that warrants the conclusion, that as many recover in public as in private institutions. I am not aware that a register of the proportion of cures to the cases admitted, in any private establishment in this kingdom, has been published. The Retreat of York comes nearer to a private house than any other to whose registers there is a reference. But in France there are very excellent private institutions, which in this respect have preserved a most commendable degree of accuracy. One is kept by Dr. Esquirol*, Physician to that fine

* Dr. Esquirol had written a very elaborate article upon Asylums for Lunatics for the last volume of the *Dictionnaire des Sciences Médicales*, when he received a commission from the French government to visit and inspect all those establishments in France; for which reason he withdrew the Memoir, in order to add to it the result of his observations during his

Hospital for Female Lunatics at Paris, La Salpêtrière, and the colleague of Dr. Pinel; and the other by a very respectable physician, Dr. Dubuisson. Let us compare the proportion of cures as published by those physicians with that in La Salpêtrière, the Retreat at York, and Bethlem and St. Luke's Hospitals:

PRIVATE ESTABLISHMENTS.

Esquirol's.	Dubuisson's.
62 in 100.	59 in 100.

PUBLIC ESTABLISHMENTS.

Salpêtrière.	Retreat.	Bethlem.	St. Luke's.
46 in 100.	36 in 100.	41 in 100.	42 in 100.

The proportion of cures would appear larger, if the same exclusion of hopeless cases of insanity were observed in the Retreat, as in the Hospitals of Bethlem and St. Luke's. But candour demands, that it should be stated, that under all its recent circumstances, the means of successful treatment have been much abridged in Bethlem Hospital.

From this comparison it is evident, that the French private asylums have the advantage over all public asylums; and that the proportion

tour. He has just communicated his Report; but it is not yet published. It is very highly spoken of, and from Dr. Esquirol's well-known abilities and experience, there can be no doubt of its being eminently interesting and useful.

of cures is much larger in the French than in the English hospitals*.

There is one circumstance which makes the number of cures in private asylums preponderate, independently of superior accommodation, classification, &c.; and that is, that the cases brought to private asylums are more commonly recent; when insanity is always most capable of cure.

That hospitals for the reception of lunatics are of great public utility cannot be disputed;

* In Germany the proportion of cures is apparently much smaller than in England or France. In 1803 and 1804, at Vienna, it was 27 in 100; at Berlin, 28 in 100: but there are a large number of epileptics included in this enumeration. From a letter with which I am just favoured by Professor Horn, Physician to the Royal Prussian Hospital La Charité, at Berlin, it appears that that Institution for lunatics contained, on the 1st of January 1816..... 211

Admitted in the course of the year 1815..... 208

419

Discharged cured..... 106

313

Or about 25 in 100.

The Report for 1817, published January 1st, gives nearly the same results.

Having been promised aid in this inquiry from physicians in almost every country in Europe, I hope to be able to publish, in a work I am arranging upon Mental Derangement, a summary of the information obtained upon this curious and interesting subject.

since they afford security and comfort to those who, until they were built, were at large, and often dangerous to society; and who, as we have had recent proof, were rather treated as brutes than as unhappy fellow creatures. But while the present system is pursued, although every county may in time possess its hospital, yet generally they will serve for little else than their name imports, — Asylums for Lunatics.

It is to be feared that the funds, which should be appropriated to the supporting of these institutions, are, according to the plans I have seen, likely to be expended on a building, vast beyond all possible necessity, and yet deficient in almost every requisite for the cure of the patients. If thus improvidently the resources are exhausted, it requires not the gift of prophecy to foretel, that in a very few years lunatic asylums, like many other public works, will exist but as monuments of the success of the designing and interested few, and of the folly and delusion of the many.

Without being so sanguine as the French Physician, who, as an instance of the perfection of the interior, describes a visitor upon entering a public lunatic asylum, as exclaiming: "Mais où sont les folles?" But where are the mad people? yet we may rest assured that the spirit of reformation has gone forth; and that it will be a less difficult task than Parliament

appears to conceive, to amend the present defects, to improve all lunatic institutions, and afterwards to prevent their relapsing into a state of neglect and turpitude.

The great secret of managing all mad-houses is example. It is a maxim that ought to be engraven—"That example, which determines the conduct of the sane, has an equal influence upon the insane."

Defects of the present System, the Sources of existing Abuses.

He who arraigns any system, must have formed in his own mind some outlines of one which he conceives would be better, or he renders little service to society by his objections. From the most attentive consideration of the subject in every point of view, I confess that a very different course to the one proposed strikes me as being necessary to accomplish any good; but that course would be so opposite to the views of the advocates of the proposed system, that I am sensible it will never meet with their approbation.

However, ere a remedy be suggested for the disease, let us endeavour to trace it to its origin. It is by freely exposing errors that they are most effectually corrected.

Whether we look retrospectively, or prospectively, it is impossible to conceive any thing less adapted to any practical benefit, than those laws which have been passed relating to the management of the insane. Let us refer to the Act Geo. III. 1774, under which mad-houses are at present regulated, and to which Dr. Powell, the Secretary to the Commissioners of the College of Physicians, very judiciously refers as the origin of the existing evils.

It appears that this act is so framed as to be little more than a dead letter, except in the metropolis and its immediate vicinity. Within the limits to which it extends (seven miles), the London Commissioners have regularly granted licences, a nominal security has been required of the licensed, visitations have been made to all the private houses, regular certificates from medical men of the state of mind of every patient confined within licensed houses were usually found filed, and the returns were generally made to the secretary of the Commissioners within three days of a patient's being admitted. The Commissioners were physicians only.

So far the act is good: but unluckily it contains no penal power whatsoever; nor does it provide any adequate fund for remunerating the visiting Commissioners, who are commonly of the first rank in their profession, for the

sacrifice of their time which is in fact their property, in the execution of this public duty; and therefore it is not performed so frequently or so effectually as it might be. The sources of the fund are confined, I believe, to the fees taken for the licences; and these scarcely sufficed for the ordinary and very moderate expences: nothing was left for the prosecuting of delinquents. Hence, defective as the Act was in other points, the want of funds rendered it still more so.

There cannot be a doubt that to the defects of this Act for the purposes for which it was passed, may principally be ascribed all that has since been wrong, and which created the necessity of the late investigation. An act which provides only for the metropolis and a circuit of seven miles, is virtually leaving the rest of the kingdom exposed to the same abuses as existed prior to its enactment. Commissioners the most competent, both by education and character, are appointed and enjoined by it, to examine all private houses within the London district. They are also to grant a licence to all who may apply for it; but, by a gross oversight, they have not the power of refusing it to any applicant, however infamous his character; nor can they suspend his licence, or take it away, or refuse its renewal, however gross his misconduct in the execution of his office, as a superintendant or keeper. It is true,

he is to enter into a recognizance of £100, and give sureties for a like sum, for good behaviour during the period of the licence, and he is amenable to the laws for his good conduct, by action, &c.; but the rarity of a forfeiture of a recognizance, or of a prosecution at the suit of the Commissioners, are proofs of the difficulty of bringing these delinquents to punishment.—There are, besides, a prodigious number of other defects in the Act; but faults enough are enumerated to shew the facility of very improper persons becoming superintendants. Hence there can be no difficulty in determining whence sprung so many ineligible houses and superintendants, and the infamous acts which have disgraced the national character.

There is much to condemn and correct in some private houses even within the range of the visitations of the Commissioners of the College of Physicians; can we then be surprised to find greater abuses existing in those situated beyond their limits, where little or no jurisdiction is exercised?

As to some improper acts alledged to have occurred in a particular private establishment in the environs of London, few gave credence to those charges when made before the Honourable Committee of the House of Commons; and subsequent events have fully proved the malignity and

falsehood of the accusations. The length of time the gentleman implicated has superintended the most extensive private establishment in this or perhaps in any other country, and in a manner so highly honourable to his character, it might have been thought, would have shielded him from such gross and virulent charges. Fortunately the motives of the accusers were early detected. But this event alone shews how exposed the most meritorious are to the machinations of the disappointed and revengeful; and it ought to serve as an example of what may be the consequences, if a law were passed, sanctioning, and rewarding servants, whose bad conduct too often merits the severest censure, for coming forward and swearing upon a summary investigation to the delinquency of their masters.

It is impossible to attach the least reproach to the College of Physicians, for the many defects and negligences in the system of managing the insane within its district. We have seen the limited powers it possessed. The Commissioners might remonstrate and threaten; but that was almost the extent of their power. The monies arising from the granting of licences were not sufficient by any means to remunerate them for their trouble, in the execution of this necessary but disagreeable office. How then could any prosecution against offenders be sustained?

It was an honourable sense of public duty only, that could prompt men of such character to undertake it; and it was the sole influence of that character, and not the fear of the powers with which they were armed, that produced as much reformation as had actually taken place in most private houses within their range of visiting.

The President of the College of Physicians, Dr. Latham, and Dr. Powell, distinctly affirm, that in those houses of which they had occasion to complain, gradual improvements were observed. And there can be no doubt but equal amendment might have been remarked in all private asylums, had visitations, by equally competent persons, been extended throughout the kingdom.

Compared with some of the private houses in the counties, those within the London district may be deemed excellent. On the other hand, justice and candour demand the acknowledgment that some of the country asylums, from locality, and other causes, highly creditable to the good sense and humanity of their superintendants, have advantages over many in the metropolis. And it is gratifying to find, although it is no other than ought to be expected, that most of these asylums are under the immediate direction of medical gentlemen.

According to the Act of 1774 also, justices assembled in quarter sessions in the counties,

may grant licences, and *may* appoint two of their body and one physician as Commissioners, who *may* examine houses, and *may* take notes of observation, and *may* deliver the same to the clerk of the peace, and he *may* transmit them to the Secretary of the London Commissioners; but there is nothing in the act to compel keepers of houses to apply for licences, or to prevent their receiving lunatics without licences, or to oblige Commissioners to examine such houses or take notes, or for the Clerk of the Peace to transmit them to the Secretary; consequently medical certificates may or may not be given with each patient: therefore in whatever county the Commissioners are lax in their duty, there abuses most prevail and exceed.

Again, pauper lunatics, the most likely of all others to require the protection of the law, are wholly unnoticed by the act of 1774; no medical certificate of the necessity of their confinement, nor returns of their admission, were required: "and the fiat of the parish officer alone is thus sufficient to consign a person to confinement*."

* There is a very wise and praiseworthy provision in the new Bill for the care of insane paupers; a provision which strikingly exhibits the characteristic humanity of British legislators.

As this judicious provision for the medical care of insane paupers brings to my remembrance in vivid colours, the

It must suffice to detail only these egregious errors, to be prepared to expect as a conse-

proofs I have had of the dreadful want of medical care which *some* paupers in many parts of this kingdom experience; and as it is possible these observations may be perused by some of those Members of Parliament who have most interested themselves in providing for the comfort of the poor, I cannot pass this opportunity, although the matter be not strictly relevant, of detailing some few but strong facts. Perhaps further inquiry may ensue; and an evil be stopt that I have for years cherished the hope of seeing corrected.

Not long since, I had the honour of presiding over a very numerous Medical Association, for the purpose of applying to Parliament for legislative regulations to prevent the introduction of ignorant and improper persons into the medical profession. In that capacity I had the conducting of a correspondence, which extended into almost every county in England and Wales; and consequently I became the channel through which the statements and sentiments of large and most respectable provincial associations were transmitted.

In relating various abuses which affected their interests, there was one in which all the country practitioners were nearly uniform; and that was, the gross medical neglect of the parochial poor.

In most parishes the medical attendance is *farmed*, as it is termed: that is, a contract is made by the parish officers for attendance on the paupers, at a certain sum per year. This contract is entered upon at Easter; previously to which, notice is given to all the *Doctors* in the vicinity to send in their proposals. Accordingly all the regulars who think it worth their notice, and irregulars, consisting of farriers, bone-setters, mountebanks, and all the would-be tribe, make their tenders; and he who is so fortunate as to offer the *lowest terms*, is appointed the Parish Doctor for the ensuing year.

quence what has occurred. The only matter of surprise is, that more frequent enormities were

In parishes where any person of education and character resides, who condescends to enter into parish affairs, this abominable custom does not often obtain.

Five pounds per annum, for medical attendance and medicines, is a liberal salary, where the casual poor have averaged from sixty to a hundred; and even in parishes inhabited by persons of property, and who would blush to be called inhuman, I have known forty shillings only allowed; and of contracts for medicine and attendance at two shillings per head per annum. This is no exaggeration. I have abundant and irrefragable evidences in my possession to support these allegations. Nay, to so infamous an extent has this practice gone, that in a parish not ten miles distant from the metropolis, when the day arrived for electing the *doctor*, one was chosen in preference to the rest, because it was remarked that during the year he attended, there were always the greatest number of deaths! The gentleman who stated this, offered to verify it upon his oath.

Possessing these testimonies, I thought it an act of humanity and justice, as I was then in frequent communication with several leading members of Parliament, to state the matter to them, and inquire if such contracts could not be rendered illegal. But I received no encouragement; on the contrary, all declined interfering, on the ground that nothing could be done without some alteration in the poor-laws, with which all were afraid to intermeddle. Perhaps the times are now more auspicious; and means may be found to abolish a practice so injurious to the poor, and derogatory to the medical character.

Pauper lunatics, from their hapless condition, naturally demand the greatest attention; and it behoves us to provide for all the wants of their animal life. But age, disease, and

not discovered in the course of the late investigation.

These are all radical defects, which, if the Act of 1774 had been wisely drawn, and had been made operative over the whole kingdom, would have prevented the existing evils.

To provide against the recurrence of the causes of complaint, two very essential steps are—1st, that no person shall have a licence whose qualifications cannot stand the test of severe proof: and, 2nd, that some plan should be devised to improve the class of persons who act as under-keepers and nurses of insane persons.

I am confident that all other considerations are subordinate; and that these two objects accomplished, not only would the condition of the insane be ameliorated, but it would be improved to the highest degree of which it is susceptible.

If men of character and some education only are entrusted with a licence to keep a lunatic asylum, will they not feel that their reputation and success in the undertaking is involved in their providing every thing requisite? Would it not be inconsistent with the character of an

poverty, often reduce an industrious person to the lowest ebb of misery; and with the consciousness about him of his degradation and his necessities, he is certainly no less an object of commiseration.

honest and intelligent superintendent, to appropriate a house for the reception of a greater number of insane persons than it could contain? or to suffer any iniquitous concealment or coercion to be practised? or that the food should be defective? or that either their moral or medical treatment should be neglected? If the character and interest of the superintendent be not a security for good conduct, will the dread of punishment improve him, and insure better treatment?

The fundamental principles of all reformation or improvement, in the management of mad-houses, or in the medical treatment of insane persons, therefore, consist:—1. In the fitness of the qualifications of those who are permitted to take charge of them: 2. In having regular members of the faculty as superintendants: 3. In leaving superintendants uncontrouled in their management: 4. That when persons qualified do undertake this charge, in protecting and encouraging them, rather than in holding them up as incorrigible, and bound only by the strong arm of the law: 5. In the competency of Commissioners, or Visitors, to the duties of their offices.

It appears to me an axiom that there is no more reason to exercise coercion, pains, and imprisonment upon a man of sane mind, than upon him who unhappily is bereft of it. If a man violate or resist the law he is not in his sober

senses, and must take the consequences; but if he perform all the duties of his station as a good citizen, he certainly has a right to some consideration, and ought not to be treated like a rogue or a madman.

Parliamentary inquiries may undoubtedly be very useful upon many subjects; but we have had abundant proof that they are liable to the fallibility of all human affairs. Any mode of investigation that is open to party feelings, to deception, and to all the low chicanery which little minds well know how to practise upon persons of ingenuous and honourable character, should be viewed with caution. On these occasions, all the passions are brought into play, and excite too often popular feeling—a ready engine in the hands of the artful; and thus impartial justice is too often perverted. The most illustrious characters have felt this truth; and the rapid transition of public opinion, which way soever expressed upon the result of the inquiry, is the best proof of the extreme probability of erroneous conclusions when deduced from such premises.

Much of the evidence detailed in the *MINUTES* on this Inquiry is well calculated to inflame; and it requires no depth of penetration to perceive, that the witnesses have studiously exaggerated many otherwise simple incidents. This has had its effect; but the truth which

these arts have obscured must prevail, and juster views succeed. Hence it is now evident, that much which was imputed has partaken more of the sin of omission than of commission; that from the censures or admonitions only of the Commissioners, great amendment in private lunatic asylums actually took place; and that there rarely existed a disposition in the superintendants to neglect the correcting of what had been remarked as improper.

Although the *primum mobile* of every thing in an asylum for the insane, is the superintendent, who puts into action and directs the whole; yet he is incapable of carrying any plan into effect, unless he is seconded by able and judicious assistants. Without their help, it is utterly impossible for him, however correct and vigilant, to succeed in keeping good order in his establishment, and much less in improving the condition of the insane. Intermediate officers may be appointed as overseers of the under-keepers; but so much depends on every individual, however inferior his station, that if he be not intelligent, faithful, and obedient, the harmony of the wisest system is deranged and rendered futile. Unhappily these necessary adjuncts to every plan of amelioration, as I have before remarked, are illiterate, vicious, and mercenary. To attempt to reform the present race,

I fear, would indeed be a hopeless task: the evil is too deeply rooted. Yet, with the aid of Parliament, and acting in concert with the patrons and proprietors of all lunatic institutions, it is highly probable a plan might be devised, which, acting prospectively, would train up persons of some education, and better dispositions to engage in this employment.

As this is a most serious impediment to improvement, and claims the greatest attention from all those whom humanity has interested in the welfare of insane persons, and as it may afford useful information, I shall perhaps stand excused, if I enter rather fully into the nature of the situation of these people, and the relation between them and their employers.

The wages of men and women attendants on the insane in private houses, never, until length of services has merited augmentation, exceed those of domestic servants. Superior servants in gentlemen's families are much better paid. Their emoluments are sometimes considerable; but this, however, always depends upon contingencies. Hence they are needy and rapacious. While they are in the asylum, they add something to their regular wages from the cast-off clothes of the patients they attend, and from such casual donations as the friends of the patients bestow. If they go to attend patients

from home, it is on their master's account; and, in addition to their usual wages, a weekly perquisite is exacted for shaving, dressing, &c.

They are sometimes placed in situations of great trust; having often the care of deranged persons of rank and fortune committed to their charge. In the execution of this trust, if they conduct themselves so as to give satisfaction, they sometimes are handsomely rewarded. I say sometimes, because it most frequently happens that the family of the patient dismisses them without a compensation at all equivalent to the value of their services. It should always be recollected that their lives are often risked in the performance of their duty; and although they, by vigilance and care, frequently prevent the perpetration of crimes that would entail present misery, and perhaps the loss of immense property to their patients' relations; yet they are too often most illiberally requited when there is no further occasion for their attendance.

From a hope of higher wages, they sometimes unthinkingly discharge themselves from the permanent service of the asylum of which they are the servants, and take the patient on whom they are attending on their own account. They then run the risk of his recovery or death, or their discharge from that service: in any of which cases they generally become destitute;

for their former master will never hire them again, and their breach of faith being known, no other will confide in them.

Thus, whether they are serving in an asylum or out of it, on their master's or their own account, their emoluments are so precarious that it is very rarely, or with the utmost difficulty, a prudent and discreet attendant can save a competency to support himself when past active duty.

It may be imagined that greater wages would induce a more respectable class of persons to engage in this service, and that they who were better brought up would be more worthy of confidence. I have tried the experiment; but the event has not answered my expectations. The best servants are those which are formed in the establishment; but, "evil communication corrupts good manners;"—they soon become contaminated by association.

There is something in the idea of attending upon mad people revolting even to ordinary minds; while the impression obtains that there is some personal risk, and a greater degree of responsibility, than in any other employment. Besides, there is nothing sufficiently lucrative to tempt them; and consequently none but of the lowest description, who are uninformed, and whose minds are not susceptible of comprehending the nature of their duty, will undertake it.

Although there is the strongest evidence that these people, like most others of the lower classes, bestow little reflection upon the future; yet example with the most ignorant sometimes produces effect where the wisest precepts fail: therefore they see and feel the total want of provision for their old age, when they are no longer capable of fulfilling those functions which this service peculiarly requires. If opportunities of accumulating a competency were more frequent, prudence, economy, and forethought, must not be expected where there is such great laxity of morals, and so many temptations to dissipation.

They who are unacquainted with the economy of insane establishments, may not feel the full force of this evil; and may, judging by comparison with other large establishments, conceive it demands nothing but the strict exercise of the authority which every master has over his servants: but where the servants must be taken from a class so generally deficient of those principles, which happily often attach by reciprocal ties of affection and gratitude, and which kind usage on the one part and faithful services on the other beget; that reciprocity must be of very rare occurrence, and is little to be reckoned upon: and feeble as this tie now is, the new Bill would totally sever it. But superintendants, whose practical knowledge

ought to be regarded, will agree that this is one of the main obstacles to the accomplishment of any plan they have attempted towards improving either the moral or physical condition of the insane under their care.

Dr. Haslam, in a recent little tract, offers some judicious observations upon this subject; but I believe his experience of keepers has chiefly been confined to those in public hospitals; and there is less difficulty perhaps in procuring or retaining good keepers in them than in private houses. Dr. Pinel found that recovered insane patients, having perhaps no resource when discharged as cured, have been engaged, and always proved the best keepers. All public hospitals have this advantage; and frequently avail themselves of it, as well as of the occasional services of convalescents. Keepers, therefore, employed in public asylums, look forward with confidence, that if they conduct themselves properly, they will be promoted, and be provided for when they are no longer able to do their duty; those belonging to private houses may perhaps earn more money than those in public hospitals, but they have no provision in expectancy. Sensible of this, Dr. Haslam observes, that "perhaps nothing would more tend to improve the condition of this class of persons, and incite them to a more humane and conscientious discharge of their duty, than the establishment

of a fund, as a provision for the latter period of their lives, to which, during their employment, they should contribute by a weekly or monthly instalment." But this scheme, however humane or practicable, will by no means correct the evil.

These persons ought to be selected from other and less vicious classes. They should have been brought up in habits of industry and regularity; and possess at least the rudiments of religion and some notions of morality. A Benefit Society would only have the effect of making them more idle and insolent, and less obedient to their employers. It is too dangerous an expedient to be encouraged. Still the forlornness of their situation is greatly to be commiserated. Public laws and private regulations may succeed each other *ad infinitum*; but, unless the melioration of the condition and qualities of these subordinate but essential agents is also effected, all attempts to amend the state of the insane will be in vain.

I have dwelt much upon the character and situation of these people, because it is impossible too highly to estimate their great importance to the physician and superintendant; nor can any but those who have felt the severe disappointment and perplexity arising from the deficiency of their qualifications, conceive how frequently the wisest plans and best intentions

are frustrated by their ignorance and want of principle.

Although I have ventured to censure particular provisions of this Bill, I freely confess that much is required and may be done by Parliament for improving the general condition of the insane. But this measure abounds with objections so numerous and strong, that I am perfectly confident it will deteriorate the condition of those for whose benefit it is intended; as it assuredly will that of the persons to whom the insane must be confided.

Indeed can it for a moment be seriously expected, that any thing so complicated is calculated to eradicate evils, the roots of which are nourished by the vitiated state of society; to reform which all the penal statutes of the land must fail. The very principles of the Bill are discordant; and whether it be analyzed clause by clause, or whether it be considered synthetically, it must be pronounced by all competent judges to be totally irreconcilable with legitimate induction. It was before the public during the last session; but those best acquainted with the subject trusted that a measure so extraordinary and defective would cause its own defeat: therefore little open opposition to it was manifested.

The unprejudiced saw clearly that it originated in those exasperated feelings which the

investigation had excited, and it is to be feared those feelings still prevail and warp the better judgment of its advocates. Another recess has passed, yet the measure is restored with all its original deformity. This cannot be the effect of pure conviction. It is quite contrary to all former examples, and induces a strong suspicion that some interested individuals must be industriously, though secretly at work, to keep alive that irritation which their own arts originally excited*. And as it has now received the sanction of one branch of the Legislature, it is high time to explain to the public its import and various errors.

It may be asked, if the multiplication of oaths, and penalties, nay, if transportation, or the pain of death itself, have, in the slightest

* The industry displayed in publishing from the Minutes such garbled extracts as were most likely to rouse public indignation, and the studied circulation in England of a recent trial in Ireland, detailing the most disgusting scenes of wickedness and obscenity, is presumptive evidence of the truth of this suspicion. But the very circumstances which took place in the Irish Mad-House, afford a striking example of the necessity of a good moral character being ascertained, before any person is entrusted with a licence. One of the parties implicated in those nefarious transactions was well known in this country; and by his conduct soon evinced, that *Illustrious* and *Noble* patrons may easily become the dupes of designing and unprincipled men.

degree diminished the frequency or flagrancy of every species of profligateness? Are not our wisest legislators, magistrates, and divines, convinced of the inefficacy of penal statutes for the prevention of crime? Have not many institutions sprung up in various parts of England for the prevention of vice, by inculcating the precepts of our holy religion and sound morality? and others, by the encouraging of virtue and industry? This is true philanthropy: but it is also the result of a conviction of the total failure of punishment in deterring from the commission of crime; and nothing can check its progress, with all its concomitants, but by instilling into the minds of the rising generation such principles as will induce them to avoid the paths of idleness and wickedness, and to pursue those only of industry and honesty.

These are truths which cannot be denied; yet do we see a measure brought forward that is repugnant to the moral and physical good of those whose condition it professes to ameliorate and improve; and which breathes throughout a spirit of vindictiveness and bad policy rarely known in the range of British jurisprudence.

Although the amelioration of the present and the improvement of the future condition of the insane be primary objects, yet in the zeal for attaining so desirable an end, it must not be forgotten that the rights of individuals have ever a

claim to consideration. It must be allowed that the proprietors of houses and superintendants of hospitals have a very deep interest in the provisions of this Bill. Are the many to be involved in one general ruin as an atonement for the crimes or errors of the few? Has this inquiry proved that all are equally base? Has neither integrity, nor humanity, nor ability, been evinced by any superintendant in the conducting of his establishment? I must take upon myself to answer, that the Minutes, although they disclose many disgraceful and inhuman acts, do not satisfactorily prove any enormity to have been practised in any one private house of respectability. Some of the scenes detailed are certainly horrible; but the theatre of them was commonly some receptacle of the lowest description, unlicensed, unvisited, and, before, almost unknown.

Since the multiplication of penal statutes has failed in preventing crimes, and vice is unchecked by prosecutions and punishments, why should we expect that a policy that has been found to be totally inefficient, should in this instance only be applicable? Why should not a system of lenity and encouragement to all concerned in the care and management of the mentally deranged be substituted?

Acting upon the old adage, that prevention is better than cure, such a plan is more feasible

than one of punishment and objugation. Patronage and adequate remuneration to those who will devote themselves to the charge of insane persons, whether as superintendants, or in the subordinate situation of keepers, ought to be held forth.

That such a plan ought first to be tried before the rigorous one proposed, is surely reasonable; and I am indelibly convinced, that it would not only prove successful, but that it may be accomplished at an expence trifling, comparatively with the scheme now under discussion.

A Bill embracing so extensive and complex a plan must necessarily be attended with an enormous expence to the public; it cannot be less than £15,000 or £20,000 per ann. It is not my business to inquire whether the object can justify the expenditure. But I have heard of no opposition to the measure upon this ground. Still, as some of its most strenuous supporters in Parliament are the jealous guardians of the people's rights and property, I cannot for a moment doubt that they will the more readily embrace any plan tending to benefit the insane, if it be effected at a more moderate cost, and without affecting the liberties of the subject.

England is renowned above all nations for the nobleness, excellence, and number of her religious, charitable, and moral societies. The

immense contributions of private individuals for their support, is at once a proof of public spirit and sound principles. That which in England is the especial and voluntary act of the public, belongs, in other countries, to the Government; which intermeddles with, supports, and directs every thing that regards public œconomy. The Parliament of Great Britain frequently extends its aid in support of useful institutions, and all truly national objects; and, no doubt, the same spirit of patriotism has sanctioned this unlimited provision for carrying into execution the proposed Act.

But however imperative the regulation of mad-houses may be, let me conjure those who are so zealous for reformation, to reflect upon what tender ground they are treading. The sources of charity are pure but irregular, and should be inviolate. Any interference with or attempt to controul those who support by their voluntary contributions public institutions, should be well weighed before it is sanctioned by such high authority as Parliament. It is a measure of the greatest delicacy, and may have a very dangerous effect; not only on existing charities, but may influence the minds of those disposed to benevolent actions, but who will not suffer the interposition and direction of absolute authority, however exalted, in the disposition of what they have voluntarily bestowed.

The inspecting of all lunatic asylums by

competent Commissioners, but with greater caution and limitations than this Bill admits ; attention to the qualifications of superintendants ; the licensing and registering of all private asylums ; and regulation respecting medical and other certificates, &c. are all essential and fundamental points and wise provisions, and will afford necessary security against the recurrence of those evils of which there has been so much cause of complaint. But the great desideratum to effectual improvement should never be forgotten : viz superintendants possessing the physical and moral qualifications requisite for filling those situations.

Next, and an indispensable part of any plan for improvement, is the holding out of rewards for the good conduct of under-keepers or attendants, and securing a provision for them when disabled, as they often are, in the performing of their dangerous duties, or when grown too old to exert that activity which never can be dispensed with. Connected with a plan to this effect, there should be a regular register of their names, characters, periods of service, and present abode. This would be a check upon their conduct ; and when out of place, through the same channel, they would be easily found or hear of situations, before their little earnings were quite exhausted.

Similar plans for the support and relief of

many of the lower orders are common ; but none can ever be supported from the resources of these persons for their own benefit : their poverty, comparative paucity of numbers, and dispersion, preclude the necessary co-operation. It can only be by the all-powerful assistance of the Legislature, that any scheme for their relief can be accomplished. The charge of it cannot be urged as an objection by those who have consented to so great an expenditure as must attend the operation of this Bill—a measure, the success of which is, in my opinion, infinitely more problematical. Nor should the trouble of carrying such a plan into effect be regarded, when the good likely to result to those for whose sake all these pains have been taken, is duly weighed and estimated.

It is impossible for any one engaged in the management of the insane, and possessing the *mens conscia recti*, not to feel indignant at the proposed regulations ; the conclusion of which amounts to nothing more than removing an alledged and reprobated system of tyranny from the insane, to inflict it upon the sane to whose charge they are committed.

It may naturally be inquired, who it is that so freely, and with so much warmth, attacks a measure that has proceeded so far without open censure, and almost without comment. He that

is so presumptuous neither desires to disguise himself nor the reasons which move him. In the course of five-and-twenty years' extensive practice, he was led from observation to entertain peculiar opinions regarding insanity; and sought opportunities beyond the sphere which general medical practice affords for information relative to every thing connected with the subject. Particular circumstances, a few years since, induced him to devote himself to the treatment of mental derangement. Confident in character, he entered upon the field with ardour and sincerity. It was his wish to have formed a private establishment for lunatics, which should have had every requisite; but to this the inadequateness of his resources was an insuperable obstacle. And the Bill of last year, ere the arrangements which his very moderate means permitted were completed, arrested farther progress: for who, with such an Act in contemplation, would proceed to an expence that might be sacrificed by the fiat of an Inquisition? Having embarked character, professional experience, property, and the future provision of a large family, can a man so situated view with indifference the probable wreck of his toils and his hopes? In fact, the passing or rejecting of this measure and his future success in life are identified. Thus then it is candidly acknowledged, that personal motives are inter-

woven with those objections which have, with great sincerity, but upon honourable and public, as well as upon private, principles, been advanced.

Finally, upon public grounds, it may be objected; first, that this Bill is totally inefficient and inapplicable to the objects it affects to accomplish: second, that it interferes so entirely with any medical plan for the restoration of insane persons to their mental faculties, to their family, and to society, that neither skill, devotion, nor expenditure will avail; hence, the physical condition of the insane will, instead of being improved, be greatly deteriorated: and third, that it holds out no encouragement for men of character and education to take the charge of insane persons: hence the moral will be equally injured with the physical condition of the insane.

From a perusal of the replies to the Questions put by the Committee, it is evident that insanity is greatly under the controul of medicine—a fact that strictly accords with my own observations; and that a judicious combination of medical with moral remedies promises to establish, if not defeated by injudicious interference, an improved mode of practice for the cure of it. This important inference is happily derived from the best practical authorities. Yet it is plain, from some of the Queries, and particularly

from the fifth, inserted in the Bill, viz. "whether medical aid is afforded to them, (i. e. the insane patients) for their *mental* complaints?" that those who framed the Bill have adopted a theory of their own as to the nature and treatment of insanity; with which medical men may perhaps be in no way disposed to coincide. The most positive medical opinions are naught when opposed to the favourite hypotheses of speculative philosophers! But a single fact is sometimes more expressive than a volume.

If reference be made to the Questions, as to the utility of insane persons having free access to a *pump* of water, and the judicious and peremptory objections of Dr. Finch*, his reasoning will be found cogent and convincing: yet this improper licence will be found to constitute a part of the intended law! I think it will not be hazardous much to assert, that such tenacity of opinion will never be sanctioned nor be justified by any medical authority whatever: it is quite clear that many of the physical principles which appear to have been adopted, contradict the evidence which the medical and even other gentlemen, acquainted with insanity, and who were examined, adduced.

Insanity is perhaps dependant upon the abuses of civilization, and will increase with it

* See First Report, 1815, p. 51.

to the injury of society. To rebut, therefore, false doctrines whenever they are advanced, and especially when their promulgation must aggravate and perpetuate the errors they inculcate, is at least attempting some good.

It would be irrelevant here, perhaps, to enter into any discussion of the reasons which, in an age so enlightened, have retarded our pathological knowledge of insanity; and consequently of a more rational practice for its cure. This would, perhaps, be more fitting the subject of a medical work*.

The Antients considered every species of insanity emanating from a physical or corporeal *cause* only, and the disorder of the intellects as an *effect*; and their practice being conformable with that theory, there is reason for believing that it was generally much more successful than that of the Moderns. In the earliest ages, there was little difference in regard to the medical treatment of insanity; but in the moral, perhaps, there was a greater degree of discrepancy. While the more modern physicians confined

* Upon this intricate subject I have presumed to offer some opinions, in a brief Essay "On the Pathology of Insanity," in the 34th Number of the *London Medical Repository*; and propose entering more fully upon it, in a work preparing for the press.

themselves to this view of the nature of insanity, their *modus metiendi* corresponded: whatever the results of that practice might have been, there are but few records extant; and, perhaps, in this country, there are none prior to the foundation of Bethlem Hospital. The practice of medicine has received many boasted acquisitions within the last century: if, therefore, we inquire whether the medical treatment of insanity has kept pace with the progress of the healing art, we ought to refer so far back for evidence whether any improvement has since occurred.

The registers of Bethlem do not record more, I understand, than the number of patients admitted, discharged, and detained. I have not had opportunity of consulting them; but from what is published, there is no reason to boast that the system of treating insanity has improved within the last century in England.

Dr. Tyson, who was physician to Bethlem, states, that from 1684 to 1703, (twenty years) 1294 patients were admitted into that hospital, of whom 890 were discharged cured, or about 2 in 3: from 1784 to 1794 (ten years) 1664 were admitted, of whom 574 were discharged cured, or rather more than 1 in 3 only! This certainly applies to one hospital only; but I believe there is too much reason to conclude that further research would elicit analogous results.

To what is this retrogression to be attributed?

May not Medical Practice have bowed too lowly at the shrine of Philosophy?

Throughout the whole of the 17th and part of the 18th centuries the philosophers and physicians, who flourished and eminently adorned the age, were deeply involved in speculations upon the seat of the soul, and with metaphysical disquisitions upon its materiality, or the relation of mind with matter. This famous dispute ended by the triumph of Descartes over the advocates of materialism, and the establishing of the independency of mind upon matter. Hence the mind has been treated as a substance, possessing distinct properties, and subject to the infirmities of disease. The opinion of Descartes and his followers became a favourite doctrine, it was taught in the schools, adopted as a dogma of Alma Mater, and it has continued to pervade both precept and practice to this epoch.

When physicians became entangled within the vortices of metaphysics, every thing was explained agreeably to the new philosophy. Nothing was so attractive and seducing as the solution of the mysterious operations of the human mind upon the animal machine. Hence the aberrations of the intellect were arranged as specific diseases, and the research for first causes

was overlooked in the contemplation of their effects. The treatment of insanity consequently retrograded; for what are remedies, if prescribed to symptoms only, and the causes remain concealed or neglected?

Nothing is more distant from my intention than to enter into the mazes of metaphysics; but I shall venture an opinion, that the true obstacle to the establishing of a correct theory of the causes, and of a sound practice in the treatment of insanity, is, the impression that the mind can become diseased independent of the body. There is not a single proof that will substantiate such a position.

Insanity always originates in a corporeal cause: derangement of the intellectual faculties is but the effect*.

Disease of the mind, therefore, as a primary affection, is a chimera, existing only in the brains

* To those who have before professed similar opinions, I am aware materialism has been objected; to this I have to answer only, that it is the objection always urged when nothing else can be advanced to get rid of an unanswerable argument. I am not regardless of the opinion of the world upon this point; and trust my principles are sufficiently known to exempt me from suspicion. But in seeking truth, I cannot chuse but to controvert opinions, which I am convinced have proved the greatest obstruction to the progressive knowledge of the origin and treatment of insanity.

of poets, pseudo-philosophers, and metaphysicians. Hence then to inquire "Whether medical aid is afforded for mental complaints" is a misconception.

The French physicians pursue the only way by which the pathology of insanity can ever be satisfactorily elucidated: they minutely dissect the bodies of those who die insane; and the much greater facilities they possess for morbid researches, has enabled them to throw considerable light upon the subject. And we have incontrovertible evidence that the treatment of insanity in France, at present, is far more successful than in England. This success may be principally ascribed, physically, to their physicians discriminating whether the aberrations of the mind arise from existing organic lesion, or whether from a supervening morbid action, the consequence of such lesion; and morally, from greater attention to the employment of the intellectual faculties as a concurrent means of cure, and from the perfect exemption they enjoy from any interference, except by those who are competent to appreciate what they are appointed to judge.

If a plan for the mitigation of the present state of insane persons, or for improving their physical and moral condition, be sincerely desired and sought, they who are interested must

first divest themselves of those prejudices which *ex parte* and suspicious statements, popular clamour, and scholastic dogmata, have implanted in their minds. Purity of intention implies purity of principles: but when engaged in matters of public interest, it is not sufficient to mean well: consequences should be weighed ere we decide, lest where we intended to do good, evil be perpetuated.

END.

Printed by D. N. SHURY, Berwick Street, Soho, London.

Proposal for Publishing, by Subscription,

COMMENTARIES
ON
MENTAL DERANGEMENT,

By GEORGE MAN BURROWS, M.D. F.L.S. &c.

RECENT circumstances have excited an extraordinary interest in all that regards INSANITY; and, while they have portrayed in strong colours the neglect which the subject generally has experienced, the capability of physical and moral improvement has been happily demonstrated.

Unfortunately, many who possessed both the talents and the opportunities have left no record of their experience in this malady. Some, it is true, have exhibited a considerable portion of acumen and observation in their writings; but others, launching into the mysteries of metaphysics, have produced beautiful theories rather than representations of fact: hence the judgement has been misled, and the progress of practical knowledge in affections that disorder the human mind has been greatly impeded.

It were indeed presumption in Dr. BURROWS to attempt writing a System of Insanity—a task which no one seems to have accomplished: but dissenting from many who have written on the subject, he is desirous to submit to the tribunal of the public his own opinions, in a way most likely to obtain general attention.

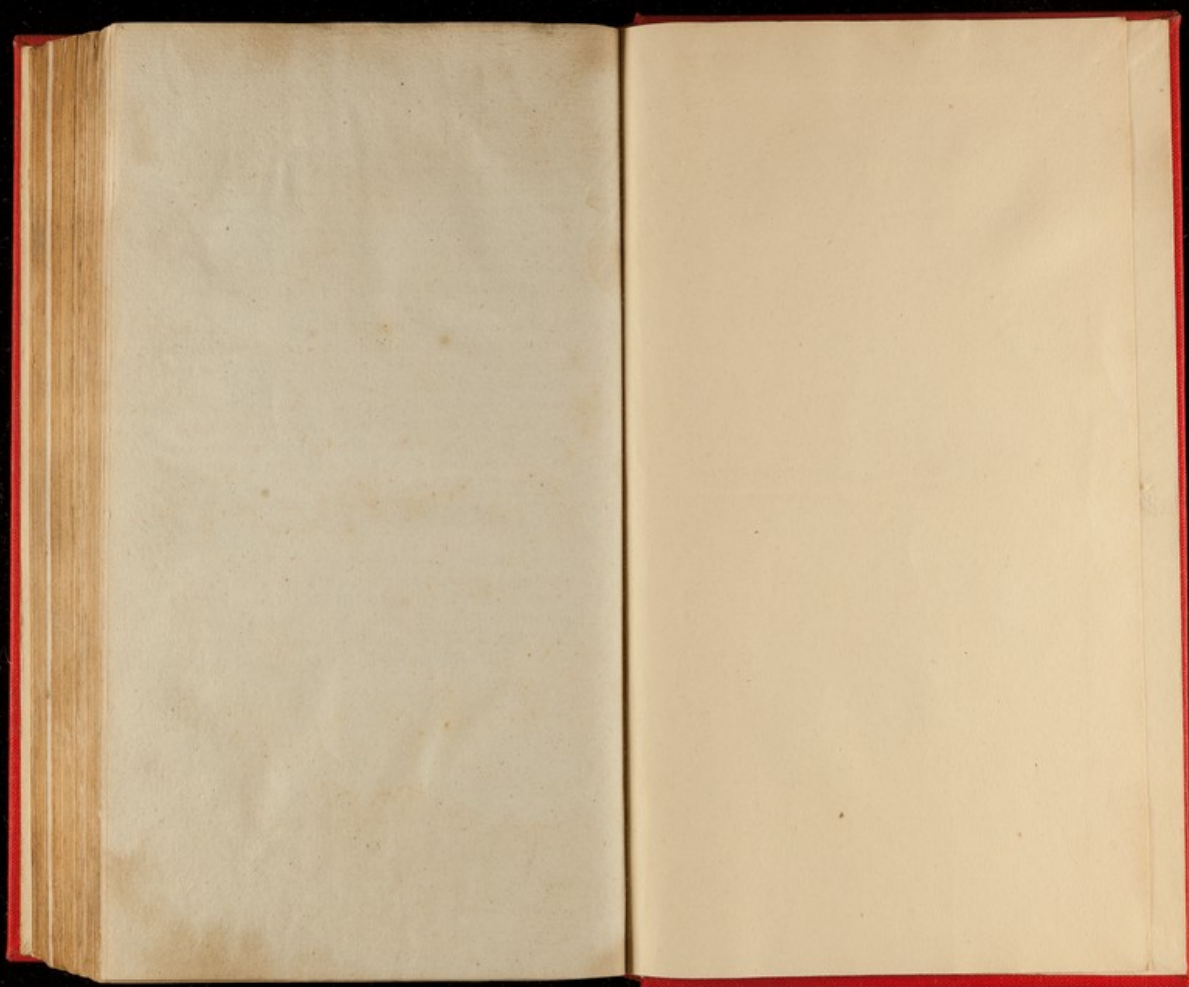
In the 34th Number of the LONDON MEDICAL REPOSITORY, Dr. BURROWS published some observations "*On the Pathology of Insanity*," embracing a partial development of his opinions, and he intended in that Journal to have continued the publication of the results obtained in the inquiry; but he has since found that

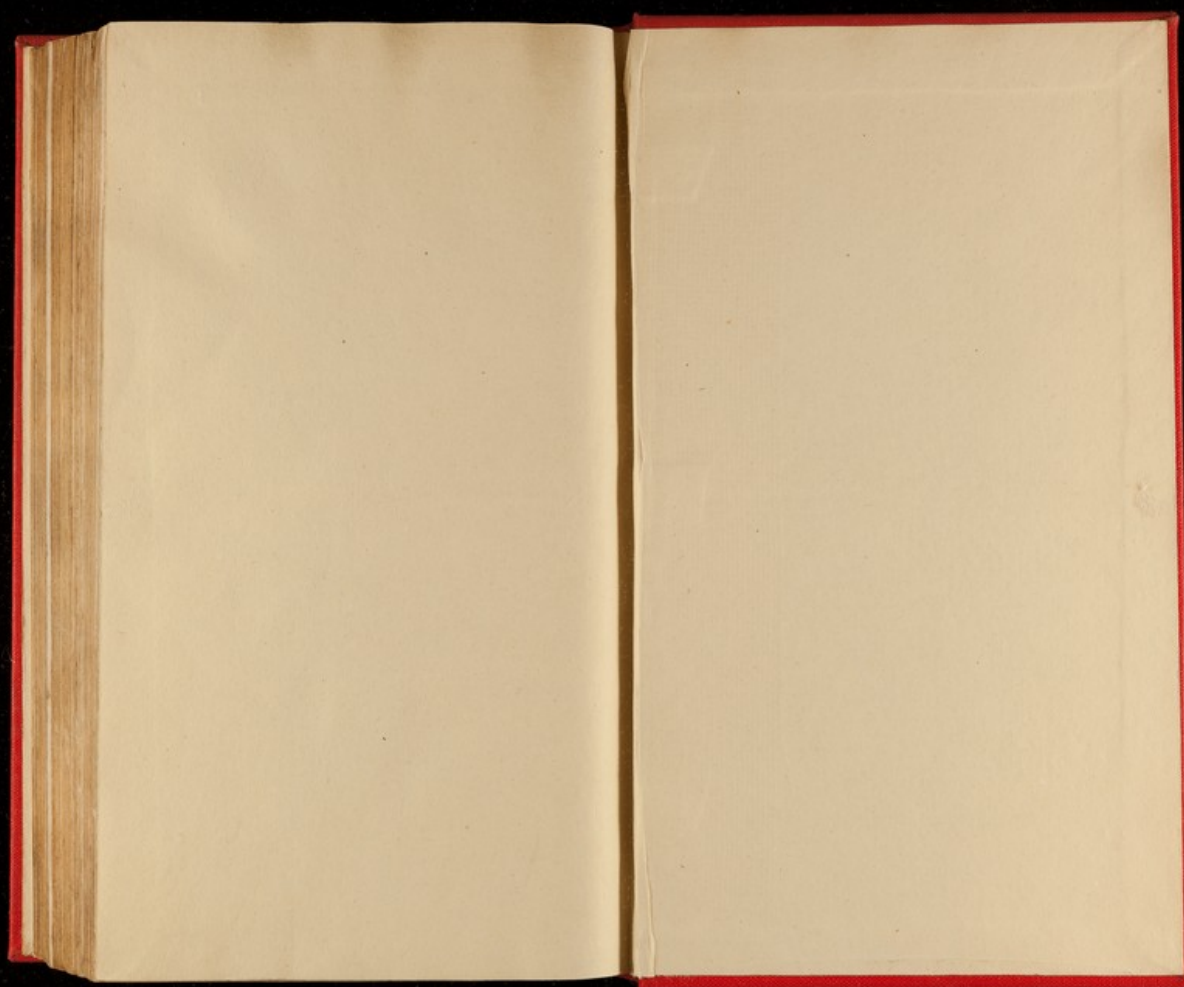
matter, both from domestic and foreign sources, has so accumulated, that he is obliged to abandon his design. He, therefore, proposes to publish Observations, Pathological, Prophylactical, and Therapeutical, on Insanity, in the form of COMMENTARIES; with *Remarks on Jurisprudence, as far as regards Mental Alienation.*

The subjects will be treated in a manner adapted to guide the medical practitioner, or those anxious for information relative to a malady, interesting in the highest possible degree to Society, and to many of peculiar, and even of personal, importance.

It is intended to illustrate this work by plates; the only objection to which, is, the additional expence, and the consideration that the sale of medical books, especially those of high price, is always very precarious. This risk Dr. BURROWS by no means thinks it prudent to incur. By the advice, therefore, of zealous, but perhaps too partial, friends, he is induced to publish his COMMENTARIES, following many well-known examples, by *subscription*. If the number of subscribers justify it, Dr. BURROWS will be encouraged to prosecute his plan, already considerably advanced, to its full extent; confiding in his character as a pledge for the performance of his engagement with fidelity, and to the best of his humble abilities.

The Subscription (*Twenty Shillings*) will be received by Dr. BURROWS, No. 62, GOWER STREET; and the Names of Subscribers by MESSRS. LONGMAN & CO., PATERNOSTER ROW; CALLOW, CROWN COURT, SOHO; HIGHLEY, FLEET STREET; COX & SON, BOROUGH; UNDERWOOD, FLEET STREET; ANDERSON and CHASE, SMITHFIELD; ANDERSON & CO., EDINBURGH; and CUMMING, DUBLIN.





PART

PAMPHLETS

34



34