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THE MEDICAL CHRONICLE.

VOL. II.]

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[No. 4.]

ORIGINAL COMMUNICATIONS.

ART. XIII.—*Strychnine in Asiatic Cholera.* By W. FRASER, M.D.,
Professor of the Institutes of Medicine, McGill College, and Physi-
cian to the Montreal General Hospital.

During the present epidemic of Asiatic Cholera, I have, from witnessing the frequent failure of most of the different plans of treatment hitherto recommended by writers for that disease, been led, on physiological grounds, to try the effect of minute doses of strychnine as a *general stimulant*, for sustaining the vital powers on the eve of their failure, and for restoring them to functional action when that is all but suspended by the supervention of collapse. By thus sustaining life till the virulence of the disease is expended, time is afforded for the trial of any plan of treatment to which the medical practitioner may be most partial, for correcting the abnormal condition of the blood and secretions, a condition resulting from the combined effect of the original cause of the disease and the discharges from the gastro intestinal mucous membrane. It will hence be perceived that strychnine is not suggested by me as a remedy for superseding the treatment hitherto pursued in cholera, but as a stimulant superior to any hitherto in use for sustaining life, in cases where life would, to all appearance, otherwise become extinct before treatment calculated to restore the blood and organic functions to their normal condition could be made available. Administered for fulfilling the object thus defined, in the mode which I will presently explain, strychnine in cholera has been attended with an amount of success in my hospital practice which far surpasses what I have met with from any other remedy, and justifies the *a priori* opinion, formed on physiological grounds, of its probable *modus operandi* in this fearfully rapid disease; hence I am induced to lay the result before the profession.

For the sake of explicitness, I will explain, 1st, The indications which have guided me in the administration of strychnine; 2dly, The dose

found most suitable, and the intervals at which it ought to be repeated; 3dly, The result of my hospital practice; 4thly, The testimony of others.

1st, *The indication for the administration of strychnine.* In all cases of real Asiatic cholera (tested by the evacuation of rice water stools), even before the supervention of collapse, the coming failure of the circulation is indicated by less or more irregularity or fluttering in the rhythmic action of the pulse. When the case is seen at this stage, the strychnine should be at once commenced simultaneously with means for arresting and correcting the discharges. Given at this early period, it will rarely fail to arrest the patient's descent into collapse. From 6 to 12 doses will usually cause the pulse to become firmer and more regular, and the anæmic appearance due to the serous discharges from the alimentary canal to be replaced by an active capillary circulation. In those cases, on the other hand, that are in a state of collapse when first seen the principal indications are to bring on reaction and to arrest the discharges, when these still continue. All who have seen much of cholera must be but too familiar with the frequent failure of ordinary stimulants in bringing on reaction; hence the necessity of employing such an extraordinary and powerful agent as strychnine, which, according to my experience, will often, but not always, succeed in doing so, in cases where all other stimulants would fail. In some desperate cases, other stimulants, as tea, camphor, brandy, or champagne, may be advantageously given, when the stomach will bear them concurrently with strychnine, they will however be very commonly rejected, while strychnine alone is retained.

2ndly, *The dose* which I have found most suitable is the 1-18th part of a grain, dissolved in acetic acid and alcohol, and repeated every quarter of an hour, or every five or ten minutes in very severe cases, till the pulse, if it has been fluttering, as in incipient collapse, becomes steady, or till reaction is established in cases of collapse,—when these objects are accomplished, the interval between the doses ought to be lengthened—and should the specific effect of the medicine on the nervous system be produced, then its exhibition should be suspended till these disappear, when it may be again administered if deemed requisite at longer intervals. The medicine should be thus continued till the circulation is fully and firmly established, and the patient is fairly beyond the risk of collapse. During the administration of this dangerous remedy, the patient should be frequently seen by the physician in order to watch its effects, and direct its discontinuance, should its effects on the nervous system manifest themselves. When not convenient for the chief medical attendant to see the patient sufficiently often for the purpose, then an intelligent and well instructed assistant ought to be en-

gaged to watch the case. In none of the hospital cases, to which I shall presently refer, did the least injurious effect follow the use of the medicine—in the majority of them reaction came on without the necessity of pushing it so far as to produce its constitutional effect—while in a few that effect was requisite together with the assistance of auxiliary stimulants.

3rd, *The result of hospital practice.* The number of cases in which strychnine has been administered under my directions by the zealous and intelligent house surgeon, Dr. Craik, between the 17th July and 2d August, is 22. For the satisfaction of the profession, I here give a table showing the date of admission, names, ages, stage of the disease on admission, and the result.

TABLE OF CASES TREATED BY STRYCHNINE.

Date of Admission.	NAME.	Age.	Condition on Admission.	Result.	Remarks.
1854. July 17	Fredrick Bremmer .	23	Severe Collapse	Dead, July 24	Secondary fever. This patient was discharged cured, and re-admitted for the relapse, of which he died.
"	John Schmitt	35	Severe Collapse	Dead, July 25	
"	Joanna Spratt	14	Severe Collapse	Cured.	} Admitted 9 A. M. died 3 P.M. This patient was in the worst possible condition. } One of the worst cases.
19	Ann M. Crawford	34	Incipient Collapse . . .	Cured.	
20	John Moodie	31	Slight Collapse	Cured.	
"	Jeffrey Balwin	19	Slight Collapse	Cured.	
"	William Anderson	41	Severe Collapse	Dead.	
21	Robert Marshall	56	Incipient Collapse . . .	Cured.	
"	Hannah Foley	15	Severe Collapse	Cured.	
24	Sophia McCoy	19	Severe Collapse	Cured.	
25	Williams Barnes	60	Severe Collapse	Cured.	
26	John Connors	60	Severe Collapse	Cured.	
27	Mary Hawkins	20	Severe Collapse	Cured.	
26	Antonio Josette	26	Severe Collapse	Cured.	
29	Austin Webber	29	Severe Collapse	Cured.	
"	Zeske Webber	30	Severe Collapse	Cured.	
30	Ann S. Collins	38	Incipient Collapse . . .	Cured.	
31	Mary Zayer	18	Slight Collapse	Cured.	
"	Margaret King	22	Incipient Collapse . . .	Cured.	
"	Patrick Lynch	40	Severe Collapse	Dead.	
Aug. 1	Willielma Fleischer,	30	Severe Collapse	Dead.	} Aug. 8, of secondary fever. } Aug. 7, of secondary fever.
" 2	Lonisa Harris	17	Severe Collapse	Under treatment & doing well.	

It is right to mention that these cases were not selected as favorable ones for obtaining favorable statistics for the strychnine treatment, but include every case as they came under my charge during the above period, which appeared to require stimulating treatment, with one exception, moribund, at the time of admission, and which I did not see. In all the cases the calomel treatment was simultaneously employed, together with other means suggested by general principles for combating symptoms as they arose.

From the table it will be seen that the number of deaths in the 22 cases was 5, or about 22½ per cent. It will also be noticed in regard to the 5 deaths, that in 4 of them reaction came on, and they did not die of cholera, or at least not in the collapsed stage of cholera, but of the secondary fever which so often follows it. The only one that did die in collapse was William Anderson, and he (though several hours in the hospital) was but one hour under the strychnine treatment, during which Mr. Loverin, the student who watched him, tells me he took four doses only, so that in his case it can hardly be said to have had a fair trial. I conceive it is therefore deserving of special notice that in all the cases (and some of them were of the very worst description) except in Anderson's, the strychnine was successful in accomplishing the purpose for which it was prescribed, namely, bringing on reaction, which tends to prove its superiority over all other stimulants hitherto employed in this disease.

4th, *The testimony of others.* This I subjoin without any comment; the certificates speak for themselves. It will afford me much pleasure to learn the result of the experience of any professional gentleman who may give the plan suggested a fair trial, so that its merits and demerits may, by extended observation, be accurately defined.

From Dr. G. W. CAMBELL, Professor of Surgery, McGill College,
Montreal.

Great St. James Street, Aug. 17. 1854.

MY DEAR SIR,

In reply to your note asking my opinion of strychnine as a remedy in cholera, I have to state, that my experience of it is limited to three cases, all of them the most severe form of the disease. In the first case, which occurred the day after you mentioned your favorable opinion of strychnine in the collapse of cholera, I attribute the recovery of the patient entirely to its use. The attack was brought on by a small dose of salts and senna, which the young gentleman said he was in the habit of using as a laxative. Two hours before visiting my patient, I had sent him three scruple doses of calomel, with half an ounce of a mixture, composed of equal parts of solution of mur. merphuræ, and the emulsion of cum-

phor in chloroform, a teaspoonful of the mixture, with one of the powders, to be taken every half hour till 11 p.m., and mustard poultices to be applied to the abdomen. At my first visit at 6 a.m., the medicines had all been taken, without in any way arresting the attack; the rice-water vomiting and purging still continued; the cramps were very violent, the skin blue and cold, the pulse nearly gone at the wrist, the voice reduced to a whisper, and the collapse complete. I immediately commenced the use of the solution of strychnine, by acetic acid and water, giving the 32nd part of a grain every quarter of an hour, and suspending all other treatment. An intelligent nurse was directed to continue the remedy, till convulsive twitching of the muscles was produced by it. The patient was permitted to have ice and cold water in small quantities. I saw my patient every second hour till two o'clock p.m., when the first grain of the strychnine was finished, without producing its physiological effects, and without any sensible influence on the disease, except that I thought the mere fact of his holding out so long indicated some stimulating influence on the part of the remedy; and having to pay a distant visit in the country, I did not see my patient again till 6 p.m., when I found that half an hour previously, violent twitchings of the limbs had been produced by the strychnine, and one convulsive attack of such severity, that the attendants stated they had great difficulty in holding him in bed. His intellectual faculties were not in the least confused, and he compared the sensation to an electric shock passing down the spine and darting along the limbs. The upper extremities were not so violently affected as the lower, and the paroxysms were usually ushered in by a loud cry of pain on the part of the patient. Simultaneously with the occurrence of the twitchings, reaction commenced; I found the pulse, which had been entirely gone, 120, and almost sharp to the feel; the countenance began to fill out, the lips were red, and warmth had returned to the surface; the dose of the strychnine was diminished to the 100th part of a grain, and continued every half hour, so long as any tendency to flagging of the vital powers remained. As might have been expected, from the duration of the collapse, the subsequent secondary fever was very severe, and the convalescence, which is now complete, has been protracted by inflammation and suppuration of both parotids.

The second case in which I employed strychnine, being some distance from town, I had no opportunity of watching its effects, but the rapidly fatal termination did not seem in the least to be arrested by it.

The third case, a most intense one, was in an individual advanced in life, and of a weakly constitution; and here the stimulating effects of the remedy, in restoring the pulse, were very conspicuous; so much so, that

at one time I thought reaction fairly established, and the prospect of recovery favorable, but collapse again set in, terminating fatally.

Notwithstanding the unfortunate result in two out of the three cases in which I administered the strychnine, I look upon it as the most valuable stimulant to the nervous system I have yet seen tried in the collapse of cholera; and one great advantage is, that its administration does not in any way interfere with the employment of other remedies, such as calomel, which may be regarded by the practitioner as of essential service in the treatment of this disease.

I remain, my Dear Sir,

Yours very truly,

GEO. W. CAMPBELL, M.D.

From MR. C. AULT, Apothecary, Montreal General Hospital.

Montreal General Hospital, Aug. 15, 1854.

DEAR SIR,

In compliance with your request, I have much pleasure in giving my testimony as to the comparative efficacy of strychnia in the treatment of cholera.

During the late epidemic I have witnessed the relative effects of the various modes of treatment adopted at the present day, but in none have I seen such decided and favorable results produced as by the strychnia, both in preventing collapse and restoring reaction when collapse had supervened.

In fact, it agrees well with the patient, gives rise to no unpleasant symptoms whatever, and is generally retained on the stomach when all other substances would be immediately rejected.

With much respect, yours,

CHS. AULT.

From DR. CRAIK, House Surgeon, Montreal General Hospital.

Montreal, 12th August, 1854.

DEAR SIR,

I have much pleasure in complying with your request, by stating my opinion with regard to the efficacy of strychnia, as suggested by you, in the treatment of cholera.

My present position has afforded me a favorable opportunity for observing the relative effects of the various remedies made use of in this disease, and I have been led to the conclusion that no remedy hitherto employed possesses the same power of warding off the fatal collapse which so rapidly supervenes, nor of bringing on reaction after the state of collapse has been fully established.

I am convinced that if the administration of strychnine were early commenced, in conjunction with the other remedies usually employed for checking the discharges, the supervention of collapse might be prevented in a large majority of cases, and even where that state has already become extreme, its diligent and persevering use, together with the employment of other stimulants, might bring on reaction in cases otherwise perfectly hopeless.

I have further observed that the strychnine has been retained upon the stomach when all other substances were instantly rejected, and the strength has thus been sustained, while the extreme irritability of the organ was being combated by other means.

In the hope that by the general adoption of this plan of treatment the mortality of cholera may be materially diminished,

I remain, &c.,

R. CRAIK, M.D.

In conclusion I may observe that the same plan of treatment will likely be found advantageous not only in the collapse of cholera, but also in various other prostrated conditions of the system, as after hæmorrhage, and from the effects of narcotic poisoning—to this latter class of cases strychnine, properly administered, will in all probability be found in some degree an antidote—its action on the nervous system being directly the opposite to that of narcotics, which destroy nervous power by paralyzing the nervous centres, while strychnine, by its affinity for, and extraordinary power of, stimulating the nervous centres, diffuses life and activity through every tissue and organ. To use the words of my talented and venerable friend Dr. Marshall Hall, "*It makes the old young, and the feeble strong.*" It is true that the action of strychnine is chiefly manifested on the cerebro-spinal system and the parts which it supplies with nervous power, and consequently its action is not so direct upon the organic organs, whose ordinary functions are believed to be independent of nervous power. But that the nervous system of animal life has a controlling influence over the organic functions, is a question in physiology that has been settled in the affirmative by both observation and direct experiment; hence when the cerebro-spinal system is stimulated to an extraordinary degree; that stimulation will be extended in some measure to the organs of organic life, and especially to the heart, blood vessels, liver, and intestines.—Upon the important function of respiration, which derives its nervous power directly from the cerebro-spinal system, and which shows early signs of failure in the collapse of cholera, strychnine exercises a more direct influence. That such is the *modus operandi* of strychnine in cholera, any one who pushes it so as to produce its consti-

tutional effect will, I dare say, be convinced, on finding the failing circulation of collapsed patients becoming active and strong, while heat and life are diffused into every limb and organ, some of which may have previously been in a semi-moribund condition. So remarkable was the effect in some of my cases, that it looked more like magic than medicine.

Little St. James Street, August 21, 1854.

ART. XIV.—*Nature of the Morbid Poisons and of the Diseases to which they give rise.* Being an Inaugural Dissertation presented, March 1854, to the Med. Fac. McGill College. By ROBERT CRAIK.

It is not my intention in the following pages to attempt an elaborate description or explanation of all the phenomena connected with the diseases produced by the morbid poisons. The subject is too extensive to be included within the narrow limits of an inaugural dissertation, and too abstruse and intricate to be undertaken by any but those whose minds have been trained by long habits of research and discrimination.

But there are certain prominent points that stand out as landmarks, challenging the attention of every observer, and which have been subjects for investigation to men of science, ever since Medicine deserved the name of a science.

Some of the most remarkable of these features, for instance, are the contagious nature of the diseases to which the morbid poisons give rise; the great disproportion between the cause and the effect; the immense multiplication or reproduction of the poison within the system; the regular sequence which the symptoms generally preserve; the immunity from a subsequent recurrence which many of them have the power of conferring; together with other peculiarities less prominent, but scarcely less characteristic. It is the consideration of some of these prominent features, including the nature of the morbid poisons themselves, that I propose as the subject of the following essay. I do not intend to take them up seriatim, in the order in which I have just enumerated them, but as they suggest themselves in their appropriate places as I proceed. In the examination of the subject, cursory as it must necessarily be, I shall pass lightly over those parts which may fairly be considered as settled, and enter more fully into those which still remain in obscurity, alluding briefly to the various theories which have been advanced by different authors, stating the objections to them, and in some cases venturing to suggest others which may seem more strongly supported by

analogy, and which may explain as fully the various phenomena under consideration.

Of the names made use of by authors to designate the class of diseases produced by the action of the morbid poisons, the term "zymotic" seems the least objectionable, and I shall therefore adopt it. Cullen's order of "xanthemata" includes many of them, but not the whole, so also the term contagious or infectious diseases, though it would include all the diseases in question, yet it would comprehend others, as scabies, porrigo, and such other diseases as from their purely local nature are not generally ranked in the same class with the others.

The division of the subject which I shall adopt will be the following:—

Firstly, I shall consider the seat of the zymotic diseases.

Secondly, The conditions necessary or favourable to their production.

Thirdly, The probable nature of the poisons themselves, and their mode of action, which, together with the preceding divisions, will include the explanation of most of the phenomena of the diseases.

Lastly, I shall conclude by alluding briefly to the indications for treatment, furnished by the consideration of the foregoing divisions of the subject.

I.—*The Seat of the Zymotic Diseases.*

All pathologists seem now to be agreed in considering the blood as the primary seat of these diseases; the local affections being merely the result of the general contamination, and, for the most part, caused by the efforts of nature to expel the offending matter from the circulating fluid, and hence, these local affections are generally found in excreting structures, as the bowels, kidneys, skin, &c.

That such was also the opinion of the ancients, may be seen by referring to their old humoural pathology, by which they were wont to explain these diseases. The solidists have since then attempted to locate them in the solid tissues, but these opinions were grounded on mere speculations, and have yielded entirely before the modern views, based as they are upon actual experiment and observation.

That the blood is the primary seat of the diseases, may be proved in many ways. By the simultaneous appearance of eruptions over the whole body; the symmetrical distribution of some of these eruptions; and by the production of a specific disease by direct inoculation or transfusion of blood, as has been done in measles.

II.—*The Conditions necessary or favourable to the production of the Zymotic Diseases.*

That these diseases depend for their production, in most instances, if not in every case, upon some material introduced from without, seems

highly probable, though there are not wanting many who assert strongly the opinion,—that all of them may, and frequently do arise spontaneously under particular circumstances, and who deny altogether the infectious nature of many of them. These opinions will be again reverted to, for the present, let it suffice,—that many diseases are undoubtedly produced by the introduction to the system of morbid matter, from the person of another labouring under the same disease.

But this morbid matter is not sufficient alone to produce the disease; it can only co-operate with certain other matters within the system; and if these latter be not present, it can no more produce the disease than a candle can continue to burn, or an animal to live in an atmosphere which contains no oxygen.

These matters contained in the blood of persons susceptible to the action of the morbid poisons, constitute what Simon calls the "specific internal cause," in contradistinction to the matter introduced from without, which he calls the "specific external cause." The best example of the mutual action of these two causes, is the inoculation with small pox matter, of two persons, one of whom has previously had the disease, while the other has not. The former will remain unaffected by any amount of the matter, because the specific internal cause has already been exhausted, while in the latter, a minimum quantity will suffice to produce the disease, the internal cause being ready to respond to the external.

Again, there must be supposed to exist within the body a different specific internal cause, corresponding with each of the specific external. For example, after the susceptibility to small pox has been exhausted, the poison of measles or of scarlet fever will be found to act as readily as if small pox had not occurred, thus proving that each of them has its own particular cause, otherwise the latter two would have remained inert.

But, it may be asked—What evidence is there of the existence of this specific internal cause, and of what may it be supposed to consist? With regard to the first question; we have sufficient proof of the existence of a specific internal cause, in the circumstance, that after the occurrence of some of these diseases, and the consequent separation from the blood, of the matter peculiar to the disease, the susceptibility to a recurrence is exhausted, leading us to infer, that the particular ingredient of the blood which has thus been separated, was absolutely necessary for the production of the disease. But no analysis, however minute, has yet been able to detect the slightest difference in the composition of the blood, before and after the disease.

With regard to the other question—of what the specific internal cause

consists—it is evident that the search must be directed towards either the essential or incidental constituents of the blood. Simon gives strong reasons for concluding, that neither the blood corpuscles nor the salts can be the ingredients in question, inasmuch as their exhaustion or material alteration would of necessity prove fatal. He thinks that it will be found, more probably, among the effete matters of the tissues, some of these existing in the system only once during life, and hence, when removed, can never be replaced. Such are the waste materials of the *temporary cartilages, the thymus gland, &c., and some of these might be supposed to constitute the liability to such diseases as occur only once in life.*

But it is not necessary for the explanation of these latter diseases, that their internal cause should be produced only at one particular period of life; for, as suggested by Mr. Paget in his lectures on surgical pathology, the immunity from future attacks may depend on what he calls—the *assimilative power of the blood.* Thus, when the structure of a part has been altered by disease or injury, as in scars, indurations, &c., the altered texture continues to be nourished, and its particular structure to be perpetuated, in the same way as normal tissue. So, also, when the constitution of the blood has been changed by any of these diseases, this assimilative power maintains it in its altered condition, as it formerly maintained it in its natural state.

But there is a constant tendency in the system, in these cases to return to the normal condition. Scars in process of time become lessened or obliterated, and indurations become softened and removed, so also the altered constitution of the blood produced by these diseases, may in process of time gradually subside, and finally altogether disappear; thus accounting for the wearing out of the protection afforded by vaccination, and the recurrence of small pox or measles, a second or even a third time.

A strong reason for supposing the susceptibility to these diseases to depend upon the effete matters of the tissues, is, that the accumulation of these matters in the system is well known to create a predisposition to the attack of epidemic and contagious diseases; thus, these diseases are generally found to break out first, and to be most severe, in those localities where impure air, imperfect ventilation, &c., prevent the proper elimination of these matters from the blood. So also with great muscular exertion, from the waste which it causes in the tissue. The influence which these matters have in promoting the tendency to the accession of zymotic diseases, with the conditions which favor their accumulation in the system, are well given, in a paper by Dr. Carpenter, an

abstract of which may be found in "Braithwaite's Retrospect," (Part xxvii.)

But, as before hinted, neither can this specific internal cause be looked upon as sufficient in itself to produce the disease, notwithstanding the many persons who believe that these diseases may be, and often are thus produced, or how could the fact be accounted for, that villages, towns, and even continents have remained not only for years but for centuries free from them, so long as the inhabitants avoided all communication with those laboring under the diseases. That the same specific internal cause existed in these individuals, cannot be denied from the great rapidity with which the diseases were wont to spread, when once introduced by infection or contagion. With these facts before us, it is difficult to admit that these cases occur without any external cause, which are from time to time breaking out in localities apparently cut off from all sources of infection; for, taking into consideration the subtle nature of these poisons, their diffusion through the atmosphere, and the length of time they may remain in a dormant state in fomites and in other situations, it is more than probable that these anomalous cases owe their origin to some lurking infectious matter, which has been unwittingly communicated, and which has really kindled the flame ascribed by many to spontaneous combustion.

On the other hand, it is most difficult to conceive how these diseases first originated, if we do not admit their origin independently of contagion. We have no record of their having existed from the creation, the history of most of them dating back no farther than a few centuries; hence we are constrained either to admit that they have arisen without any external cause, or to seek for some way of reconciling their present prevalence with their former absence or obscurity. The reasons why the former admission cannot be made, have been already given; with regard to the latter circumstance, nothing can be brought forward except conjecture.

We are aware that there are many agencies, such as time, and a variety of circumstances, which exercise a powerful modifying influence on many things, and even on diseases themselves. Plants have been taken in their natural state from their native forests and plains, and by the force of circumstances arranged by man's ingenuity, have been transformed in the most wonderful manner. The same may be said of many of the lower animals. Man himself has undergone various changes, both in his physical and moral constitution; and even those very diseases of which we are now treating, have, at various periods of their history, presented characters widely different from those presented at other times;

in fact, no two epidemics of the same disease can be said to have been perfectly alike in all their characters.

Is it not reasonable, then, to infer, that these diseases have been at one period of their history very different from what they now are, so different indeed, as to render their recognition as the same diseases highly improbable, if not impossible.

(It has been all but proved that small pox is greatly altered by transmission through the system of the cow. If this be correct, then, may not the systems of other animals possess the same transforming power over many of the diseases, some of them rendering them milder, while others render them more virulent; and might not even those diseases, now so distinct, and in many cases so malignant, have first existed as obscure and perhaps trivial disorders in some of these lower animals, and by various circumstances, have become developed and altered until their present condition has been attained. This suggestion is somewhat imaginative, and might almost be called chimerical; but it is not destitute of probability, and it is offered in a case where actual proof is out of the question.)

Taking it for granted then, that two causes of a specific nature cooperate in the production of these diseases, one of them existing within the body, and the other introduced from without, we have a clue to the explanation of many of their peculiarities. It explains the reason why small pox should in general be so much more mild when communicated by inoculation than when contracted by accidental infection, for the blood of those who take the disease in the latter way must be supposed to contain the specific matter in large quantity, and hence the disease is severe, while inoculation will produce the disease in those whose blood contains the matter even in minimum quantity, and in whom the disease will be proportionately slight.

For the same reason, those first attacked during an epidemic have the disease more severely than those attacked at a latter period, for the greater liability to the infection in the former, is caused by the large amount of the specific material in the blood. As already shown also, it explains the protection afforded by many of those diseases against their future recurrence.

III.—*We come now to consider the probable nature of the morbid poisons themselves, and their mode of action.*

Although it may be very evident, that two causes of a specific nature are concerned in the production of these diseases, it is not so evident in what these causes respectively consist, or in what way they react upon each other. One of them has already been considered, it now remains for us to consider the other, and their mutual reactions.

Various theories have been proposed in explanation of these obscure and difficult points, but the most important hitherto brought forward have been, Liebig's fermentation theory, and the parasite theory of Dr. Holland and Professor Henle.

Liebig compares the action of the morbid poisons on the blood to that of yeast on the sweetwort during the process of fermentation. He points out the close analogy which exists between the two processes, the phenomena being so similar as to appear at first sight almost identical. This theory is so familiar to all, that it would be needless repetition to detail it here. An excellent abstract of it is given in Dr. Watson's lectures, under the head of Exanthemata.

Simon, in his lecture on the morbid poisons, summarily condemns this theory. He denies that the two actions are at all analogous, because, in the first place, the morbid poisons are very various, affecting the different ingredients of the blood severally and distinctively, while yeast is the only ferment capable of reproducing itself in the vegetable solution, and its action always gives rise to the same products. I need scarcely say, that this argument, however strong it may be against the *identity* of the actions, does not in the slightest degree affect the *analogy*.

In the second place, he objects that their sphere of action nowhere extends beyond the particular ingredients which they respectively affect to an entire fermentation of the blood. This objection also is overstrained, for the analogous part of the process of fermentation is the reproduction of the yeast, and not the production of alcohol and carbonic acid. The morbid poisons extend their action to all the ingredients of the blood susceptible to their influence, the mass of the circulation being protected by the vital power of the system. The action of yeast extends no further. If the solution contain matters not susceptible to this action,—under the control, it may be, of some power stronger than that of the yeast, that of chemical affinity for example,—these matters remain totally unaffected.

Thus the blood may be said to undergo as complete a change as the sweetwort, although the change may not be so practically demonstrable; but have we not sufficient proof of such a change, in the fact, that it now possesses a power which formerly it did not possess, namely, that of resisting contagion.

The fact that yeast is an organic production, instead of a chemical substance, as Liebig probably supposed it to be, is a stronger objection to the theory, as a theory, than any of the foregoing, for, from a chemical, it becomes changed into a parasite theory, a consummation which Liebig cannot be supposed to have either foreseen or intended.

But whatever may be the defects of this theory, it has served to call

attention to a striking analogy which had before been unnoticed, it has given definiteness to phenomena which were before vague and obscure, and it has pointed out the direction in which future investigations would be most probably attended with success.

After condemning Liebig's theory as inapplicable, Simon throws out a few suggestions of his own, regarding the phenomena of these diseases. He says, "in many respects they seem to be *sui generis*. Certainly they are chemical." Now, he brings no reasons to show why the phenomena should be looked upon as chemical, nor can I conceive why they should be considered as such, for they certainly have no analogue among ordinary chemical actions, properly so called. Proceeding from this assumption, he next assigns them a place among that class of actions styled catalytic, with the condition, however, that if included in this class, they must constitute a new species.

Now, whatever be the nature of the action which the morbid poisons exert upon the blood, it seems sufficiently clear that it cannot be catalytic, seeing that an essential law of catalysis is, that the agent which produces such action should not itself enter into any combination resulting from that action. The action of yeast in the alcoholic fermentation is catalytic, in so far as the formation of alcohol and carbonic acid is concerned; but the analogous part of the process,—the multiplication of the yeast—cannot be considered as a catalytic action, for a direct affinity chemical or vital, exists between the yeast and the gluten of the wort.

With regard to the morbid poisons, it cannot be shown that they induce any new combinations in the blood into which they do not themselves enter, for the only appreciable changes which are produced, are the removal of the material which gives the susceptibility to the action of the morbid matter, and the increase of the morbid material itself, both effects evidently depending on an affinity exercised between the latter and the specific ingredient of the blood, thus placing the action without the pale of catalysis.

Another theory which has been considered by many as being liable to fewer objections than any other hitherto proposed, is the parasite theory. This theory was first suggested by Kircher, and has since been warmly advocated by Dr. Holland and Prof. Henle.

Prof. Henle argues in support of this theory. Firstly, That no substance other than an organic one is known to increase by the assimilation of foreign materials.

Secondly, The effect produced by the morbid poisons bears no ratio to the quantity of the substance introduced, which circumstance must evidently depend upon the prolific power of the latter, therefore, according to the foregoing argument, this substance is probably organic.

Again, The periodic nature of many of these diseases shows a close analogy with what occurs in the development of organic substances. The definite period of what has been called incubation, and the time which elapses between the commencement of the fever and the breaking out of the eruption, are very similar to what occurs during the progressive development of organisms.

The same means, also, which favor, limit, or prevent the formation and development of organic substances, also favor, limit, or prevent the action of infectious matter, as heat and moisture, which are favorable to both; and acetic acid, which acts as a poison to organisms, and whose influence in checking contagion is well known. Moreover, organic substances, as infusoria, and parasitic vegetables, may, like contagious matter, remain dry for years without losing their activity.

In addition to these general arguments tending to prove the organic nature of the morbid poisons, Henle endeavors to support the theory still further, by referring to several diseases found among the lower orders of animals, and especially to one, eminently contagious and of a parasitic nature, existing among silkworms. He attaches great importance to this disease (muscardine), evidently considering the analogy to be perfect. If the contagious nature of the disease be alone considered, the analogy is certainly complete; but the resemblance does not extend to other equally important characters of the zymotic diseases, for, as shown by Simon, this disease, together with other diseases commonly known to be parasitic, such as scabies, the various kinds of porrigo, hydatids, &c. are of all diseases the most essentially local, proving injurious only in one of two ways; 1. Locally, from pressure or irritation. 2. Generally, from the local irritation becoming inflammatory, or by the system becoming animated. This is especially true of muscardine, to which Henle attaches so much importance. The disease is purely a local one extending from the point of inoculation until it involves the whole body and proving fatal only as the extreme result of pressure or exhaustive drain.

The course of most of the true zymotic diseases differs widely from this. In them the local symptoms are generally trivial when compared with the constitutional affection; indeed, in the severest forms, as in cholera, plague, &c., the disease often proves fatal before the local symptoms have begun to show themselves.

This theory, then, in its present form cannot be considered as sufficient to explain the phenomena of the zymotic diseases; for none of the examples cited are so closely allied to them as to admit of our inferring a similarity of cause. It is true, that of late years animalcules have been seen among the products of one or two diseases, sometimes included un-

der the same head, such as gonorrhœa, glanders, &c., but these diseases are so different in most of their characters from the true zymotic type, that the propriety of admitting them into the same class may well be questioned.

But though the arguments brought forward in support of this theory, have failed to prove that the active principle of the morbid poisons consists of parasites or animalcules, according to the common acceptation of these terms, yet they go far towards proving that it is organic; so that, instead of condemning the theory as altogether erroneous, we should rather attempt to modify or remodel it, in such a way as to obviate the difficulties which hitherto have opposed its adoption.

The animalcules or organisms found in the products of parasitic diseases, seem to me to be too highly organized, or of too large a size, to admit of their existing in the blood and circulating with that fluid. They have been found in various extra-vascular situations, as between the fasciculæ of muscular fibre, in the mucous and cutaneous follicles, &c., but I am not aware that any such have been found within the vessels.

But organisms may, and do exist in the blood. Modern physiology has shewn us, that nearly every function of the body is performed through the instrumentality of cells; indeed, so numerous are they, that the whole body might almost be considered as an aggregation of them. These cells are possessed of vitality, at least they are subject to its ordinary laws. They have a period of progressive development, a period of maturity, and one of decadence, and they perform vital functions, as those of nutrition and secretion. In the healthy state, the blood is loaded with these organisms in the shape of corpuscles, which, in countless myriads roll on with its ceaseless current.

But it is not in the healthy condition alone that living cells exist in the blood. Pathology has also pointed out to us more than one disease, whose proximate cause consists of the development and multiplication of cells within the blood.

Take for example, Pyæmia. A vein inflames and suppurates. A circumscribed abscess is formed which contains pus. This pus, so long as it is separated from the circulating blood by the fibrinous barriers, produces only local results. It probably goes on increasing at the expense of the superimposed textures, until it reaches the surface and is expelled, scarcely any constitutional effect being produced. But suppose the abscess does not reach the surface. The dykes are broken down, and the pus cells make their way into the circulation along with the blood corpuscles! What then is the result? Do they act as simple foreign bodies, suffering themselves to be quietly extruded from the system, or at most, giving rise to small and circumscribed abscesses in some

of the organs? On the contrary. The disease from being purely local and of little moment, at once becomes constitutional and most intense; a fire is instantly lighted up which soon spreads over the whole system. The pus corpuscles are reproduced in immense numbers, infiltrating the internal organs or forming large purulent depots externally. The pus here compares itself in a manner very similar to the morbid poisons, producing immense results from a very trifling cause.

Another example of the presence of morbid cells within the circulation, may be found in secondary cancer. These secondary formations are produced by the arrest, in some organ or tissue, of cancer cells or their germs, derived from a primary cancerous growth, and circulating with the blood. The prolific nature of the cancer cells, explains the rapidity with which whole organs become converted into a cancerous mass.

Primary cancer, like a common abscess, is purely a local disease so long as it remains primary, producing only local results, and in most instances curable by local means. But if in any way the cancer cells or their nuclei, like the pus-corpuscles in pyemia, find their way into the blood, then again, an intense constitutional disease is lighted up, the products of which, as in the foregoing case, are identical in character with the primary matter introduced into the blood.

Cancer has been all but proved to be transmissible from one individual to another. Langenbeck produced cancerous growths in the lungs of a dog, by injecting cancerous matter into the veins. The disease, however, is far from being contagious to the same extent as most diseases commonly known as contagious; but this is easily understood, if we bear in mind the comparatively large size of the cancer cells and their nuclei, which precludes their entrance into the circulation under ordinary circumstances, or their dissemination in the atmosphere, like the poison of infectious diseases.

Here, then, are two diseases in which cells figure as the active and essential cause, proving not only that morbid cells may exist within the circulation, but that they may there reproduce themselves, acting in a manner very similar to some of the morbid poisons, and in one of the diseases at least, (if the contagious nature of cancer be admitted,) giving rise to a remarkable property, common to all the zymotic diseases, namely, the capability of being transmitted from one person to another.

These diseases constitute another link in the chain of evidence supporting the organic nature of the morbid poisons, while at the same time they lead us towards the conclusion, that as in the former, so in the latter, cells constitute the active principle.

Another argument in favor of the organic nature of the morbid poisons,

(and which I have purposely kept back until after the consideration of cancer,) may, I think, be drawn from the action of some of that class of remedies commonly known as alteratives.

Let us take a common example. Arsenic has been found useful both locally and constitutionally in the treatment of cancer; in fact, it is almost the only substance which can be said to possess any power whatever over this disease. It has also been used, it is said, with great success in cases of poisoned wounds from the bites of serpents. In intermittent fevers, and in other periodic diseases, it has often proved successful after all other curative means have failed. There are some other diseases not very closely allied to zymotic diseases, but which have many characters analogous to them, in which arsenic forms almost the sole remedy: such are some of the squamæ, as lepra, psoriasis, &c. As an external application, arsenic has been found preferable to more powerful caustics in cancer, and in such diseases as lupus, and an ointment of it has been found almost a specific in onychia maligna. But arsenic is not the only one of the class which possesses this extensive range of specific actions. Many others possess similar powers. The curative power of mercury is well known in at least one contagious disease. It has also been found to possess great power in checking the progress of cholera, and its use in many forms of fever is well known. Many chronic skin diseases have yielded to it, when all other remedies have failed. Local applications of it also, in the form of corrosive sublimate, have been found very useful in some forms of porrigo.

Nitrate of silver is another of this class, so is iodide of potassium, and I might go on enumerating others, all of them possessing the same qualities; let these, however, suffice for our purpose.

Now, how are these actions to be explained? I am not aware of any satisfactory or definite explanation having ever been given. These remedies are said to exert a peculiar influence on the system, by which its morbid functions are corrected, &c. &c.; but the nature of that influence has not been satisfactorily explained.

It will be observed that those substances which I have mentioned, and many others belonging to the same class, possess properties highly destructive to life in all its forms. Now, may not their alterative action depend upon this property? Some of the diseases in which their beneficial influence is exhibited, have an organic cause, such as cancer, porrigo, &c., and in most of the others there are strong reasons for inferring the cause to be of a similar nature.

The well known beneficial effect of mercury in common inflammation, might be explained in this way. Inflammation is a disease commonly connected with increased vitality of the system. In those persons possessed of the inflammatory diathesis, the blood corpuscles exist in large

proportion, and all the functions of the body are carried on with unusual activity. May not the mercury, then, act beneficially by reducing this superabundance as it were, of vitality, by virtue of its specific power; possibly by retarding or preventing the growth of the blood corpuscles; while bloodletting produces the same effect by directly withdrawing from the system a portion of its vitality, represented by the amount of the vital fluid abstracted? This view will be still further strengthened if we consider the injurious effects of mercury in strumous or cachectic habits, where the vitality of the system is already low, and where the depressing effects of the medicine must of necessity prove deleterious.

There are other substances, such as cod-liver oil, sarsaparilla, &c., commonly classed among the alteratives, and which cannot be said to possess these destructive powers; but the impropriety of placing these substances in the same class with the others, seems sufficiently manifest, for their beneficial effects are much more easily and satisfactorily explained, by ascribing them to their tonic and dietetic qualities, than to any specific power which they can be supposed to possess.

The conclusions to be drawn from the action of alterative medicines may be stated briefly as follows. 1st, That most substances properly included in this class possess properties unfavorable to the development, and destructive to the life of organisms in general. 2d, The beneficial operation of these substances is manifested in diseases known to depend on the development of organisms, as in cancer, porrigo, scabies, &c. 3d, That their beneficial action is also often seen in diseases known to depend on the action of morbid poisons, as in syphilis, cholera, fevers, &c. 4th, Their beneficial action in these cases will be best explained by supposing the proximate cause of such diseases to be organic.

To sum up, then, how stands the case? The action of alteratives adds another item to a mass of evidence almost incontrovertible in favor of the organic nature of the morbid poisons. The only question which yet remains to be definitely settled seems to be, the precise grade or class to which the organisms belong. I have stated my reasons for believing that they cannot belong to any class commonly understood by such names as parasite, animalcule, insect, &c., and I have also given reasons for supposing them to belong to the class of organisms known as cells. Whether these reasons will be as satisfactory to other minds as they now are to my own, remains to be seen. It is true, the cells which have been assumed as the agents in the zymotic diseases, have not as yet been physically demonstrated; but may we not hope, and indeed predict, that accurate observation will yet enable us to identify the peculiar cell or germ of each disease, as unerringly as we can now identify those of cancer or pus.

In such an investigation, our search is not to be directed towards objects so palpable as a pus-corpuscle or a cancer cell, but towards objects so minute as to be capable not only of diffusion through the atmosphere, but of finding their way into the blood, through membranes now considered to be perfectly continuous.

The disease which offers the best prospect of success in this examination, would seem to be small pox, or some disease abounding in material products, in which the contagious matter is unquestionably given off, mingled with the products of common inflammation. The matter taken from a small pox pustule, for instance, must contain ordinary pus, and, in addition, the specific contagious substance, whatever that may be. Now, the microscopic characters of pus being tolerably distinctive, its admixture with this foreign material must necessarily be supposed to alter its appearance, the only difficulty being, that our present means of examination are not sufficiently refined to enable us to detect the difference; but when these means shall have been rendered more efficient as science advances, we may, I think, reasonably expect such discoveries, nor would they be so surprising as the original discovery of the pus or blood corpuscles themselves.

IV.—*We come now to consider briefly the Indications for Treatment, suggested by the foregoing views.*

In the first place. By way of preventing the spread of these diseases, every effort should be made to destroy the infectious matter external to the body, in fomites, &c.; and this will be best accomplished by the use of means or substances which have the power of destroying the vitality of the poison; such as exposure to heat, cold, chlorine gas, solutions of chloride of zinc, arsenic, corrosive sublimate, &c. &c.

Secondly. In view of the great predisposition to these diseases, engendered by the accumulation of effete matters in the blood, all circumstances should as much as possible be avoided, which tend to produce such an accumulation, as fatigue, exposure to noxious exhalations, damp and low situations, crowded dwellings, &c.

Thirdly. Whenever a specific antidote or preventive is known to exist, such as vaccination, its use should be made as universal as possible.

Fourthly. When the poison has already been introduced into the blood, its development might be prevented, or at least diminished in many instances, by the timely use of alteratives.

Fifthly. The system should be supported by nourishing diet, and stimulants if necessary, to enable it to bear up against the depressing effect of the poison, and of the remedies necessary for counteracting it.

Sixthly. All the excretions of the body should be kept as much as

possible, in a healthy condition, that no obstacle may be presented to the elimination of the poison.

Lastly. All complications which arise during the course of the disease, must be treated on general principles, avoiding as much as possible, everything which may tend to reduce the strength, or impair the vital energy of the system.

Thus, then, I have endeavored to embody in as concise a manner as possible, a few ideas which suggested themselves with regard to these obscure diseases. As stated at the commencement, I have not attempted an elaborate or complete treatise on the subject of morbid poisons; but have mostly confined myself to those prominent points which have from time to time been the subjects of controversy and investigation. Any suggestions which I have made, must be regarded more in the light of first impressions than as the results of mature reflection. The impossibility of obtaining many of the most valuable works on the subject, and the hurried and interrupted manner in which I was obliged to use those within my reach, have prevented me from bestowing upon the subject that amount of care and deliberation which its interest and importance demand. It is with diffidence that I have ventured to give an opinion on subjects which have occupied the attention of some of the most eminent men of our profession, but I have endeavored to consider each theory on its own merits, without regard to its authors, and when I have ventured to differ from them, I have been careful to state as clearly as possible, my reasons for so doing.

Experienced readers will, no doubt, find many, and perhaps important defects in the foregoing pages, but I trust they will make some allowance for inexperience and many disadvantages, and if they find in them anything worthy of their approval, or which may serve to render the obscure diseases under consideration one whit more clear, my utmost expectations shall have been fully realized.

ART. XV.—*Medical Institutions, &c., of Paris* By WM. H. HINGSTON, M.D., L.R.C.S., Edinburgh, &c.

HOPITAL BEAUJON.—This hospital, situated in the *Faubourg St. Honoré*, is unassuming, and, at the same time, one of the most comfortable hospitals in Paris. It contains 438 beds. On entering this establishment, our nasal organs do not receive that disagreeable evidence of the vicinity of sick wards, that they are accustomed to receive in such localities. The air is as pure within, as it is without, the hospital. A process of

removing tainted, and introducing fresh air, is constantly going on. By a like contrivance, in summer, cool air is forced in, and warm removed—the reverse in winter. By this means the temperature of the wards is the same, winter and summer, and throughout the whole establishment there is rarely a difference of one degree. Upwards of 6000 are attended during the year; a mere fraction of those who present themselves. Mortality (medical ward) 1 in 7.7; (surgical) 1 in 15.8. Legroux, Sandras, Barth, and Grisolle, are the physicians; Robert and Hugier, surgeons. Of the former, Barth is most generally followed, who offers very practical remarks on the use of the stethoscope and auscultation. This hospital, however, is not numerously attended by students.

HOPITAL ST. ANTOINE, in the suburb of the same name; unquestionably the model hospital of Paris. At first a home of refuge for reformed prostitutes, now a general hospital. Contains 290 beds, and administers relief to upwards of 5000 annually; the mortality among which is about 1 in 9.6. Chassaignac, known for his translation of Cooper, is the surgeon.

HOPITAL NECKER, founded by a lady of the same name, mother of the celebrated Madame de Stael, in 1779. This hospital is rendered famous by the presence of one man—*Civiale*, the lithotrotist, a man qualified to add renown to a city. He lectures easily, but not sufficiently loud to be distinctly heard. He seizes the stone with the greatest ease and dexterity, breaks it into several pieces, and crushes those again. Unlike those who make one operation a hobby, he frequently rejects persons who come to him, when the stone is too large or too hard. Lithotripsy, he says, should only be performed when the stone is friable, and under a certain size. He is very mild and affable in his manner, with a total absence of that boasting there is so much reason to censure in *les étoiles de la science*.

HOPITAL DE LA CHARITE, originally the head quarters of a religious corporation (Saint Jean de Dieu) for nourishing the sick, whose ramifications extended throughout the greater part of France. To-day a hospital of the first-class, containing about 500 beds; nearly 8000 patients receive professional assistance annually. It is composed of a series of buildings, forming a hollow square. Some of the wards are very large, containing about 90 beds, labelled off into different *salles*. A most efficient medical and surgical staff attend this hospital, and it is but necessary to mention the names of *Rayer*, *Cruveilhier*, *Andral*, *Bouillaud*, *Fiorry*, and *Briquet*, physicians; *Velpeau* and *Gerdy*, surgeons, as a proof. Cruveilhier and Andral, probably the most generally known throughout the world, are not so much sought after in hospital as are those of more circumscribed reputation. A. rarely dilates on the cases under treat-

ment, while walking through the wards; his views, therefore, are not easily learned from himself; while Cruveilhier is frequently absent, from indisposition and the press of private engagements. Bouillaud thinks, that notwithstanding his strenuous labors in the cause of science, the world is unmindful of them, and also of him. And often does he complain of the decision of that portion of the medical public who view with a more favorable eye, the labors of his more fortunate, though less deserving *confrères*. B. was the first to point out the frequency with which articular rheumatism is accompanied by endocarditis. In the latter affection, as well as in pericarditis, he still adheres to his old severe anti-phlogistic plan. I have rarely seen a physician more correct in diagnosis. A contrast to Bouillaud in most respects, is met with in his colleague Piorry. The latter seems to possess *internal* evidence of the *bruit* he has made in the world; and while he inwardly congratulates himself on the distinguished position he has attained, he highly approves of the public choice, in conferring honors and distinctions upon one so deserving of them. An extract from a *conversazione* will show the estimation in which he holds himself:—"Messieurs,—Si vous suiverez mes lectures régulièrement, je vous donnerai un certificat; et un certificat ne moi vaut plus qu'un diplôme." Not only in chest affections, but also in those of the abdomen and renal regions, the pleximeter is invariably had recourse to, to resolve all difficulties. His *tactus eruditus* is really extraordinary, and although many are disposed to smile at the extreme length to which he carries those matters, *post mortem* appearances generally confirm his diagnosis. Velpeau—a quiet, little, grey-haired old man, still attends as regularly to his duties as if he had his reputation yet to earn. He seems to be a favorite, and is always encircled by a number of students, who listen with respect and attention to the remarks offered in an easy familiar manner. The students who attend his instructions are quiet and attentive—*rara aves* in the wards of a Parisian hospital.

HOPITAL DE LA FACULTE, in the vicinity of, and directly opposite to, the *Ecole de Médecine*, in the *quartier latin*. In this hospital there are a surgical and obstetrical clinic; about 850 receive assistance in the former during the year, and upwards of 2000 births take place in the latter; mortality among which is 1 in 23.0, and 1 in 16.8 in surgery. *Dubois* and *Nelaton* are the professors in their respective departments.

Nelaton's surgical clinic is the most numerously attended in Paris, and he one of the most popular teachers. He is mild and agreeable in his manners—of an even gentle temper. Although he lectures with great facility, he seems to attach little importance to oratorical display. He is possessed of wonderful acuteness of perception, and faculty for observation—is bold and energetic, at the same time cautious. In fine no truer

or no higher tribute can be paid him as a surgeon than by styling him the *Syme* of Paris.

HOPITAL BONSECOURS, containing 318 beds, and administering relief to upwards of 5000 in-door patients annually. Mortality in the medical wards averages 1 in 11.8; in the surgical 1 in 28.1.

MAISON NATIONALE DE SANTE, for those who are able to pay the expenses of their keeping. Not more than 5, or less than 2 francs are charged *per diem*, according to the room occupied,—baths, food, linen, &c., are included. The patients are attended by six medical students, and, when necessary, Nelaton and Denonvilliers are called in consultation.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

IX.—*Woman: Her Diseases and Remedies. A series of Letters to his Class.* By Charles D. Meigs, M.D., Professor of Midwifery and the Diseases of Women and Children in the Jefferson Medical College at Philadelphia; Member of the American Medical Association, Philosophical Society, and of the Council, &c. &c. Third edition, revised and enlarged, 1854. Pp. 666. Philadelphia: Blanchard & Lea. Montreal: B. Dawson.

We took up Dr. Meigs' work, as we take up every book which comes before us for review, determined to subject it to a fair, impartial criticism. We, moreover, commenced to read it carefully, jotting 'down as we went along what we considered worthy of commendation, and what did not altogether meet with our approval. Of the latter class of jottings we had made quite a number, when we were arrested at page 151 by a sentence calculated to make an honest *timid* critic reflect, whether it would be perfectly agreeable or not to his feelings to be designated by terms which, although not to be found in Johnson or Walker, are sufficiently expressive and well known to readers of the *yellow covered* literature of the present day. "It has been charged against me," says Dr. Meigs, "by a writer, a snob, in the British and Foreign Medical Review, that this statement is incorrect, &c." Now, we argued to ourselves, we certainly do not like to be called "*a snob*," or by any name other than is applicable to gentlemen; but, the important question to be decided is, shall we allow ourselves to be intimidated in the discharge of our duties?—shall we permit our feelings to make cowards of us? No! said

we, and it shall go hard with us but we hold to our determination. Having arrived at the conclusion, then, not to be unduly influenced in our decisions, by an authority in medicine even great as Dr. Meigs is acknowledged to be, it was with infinite satisfaction we read at page 271: "Judge in your wisdom and awake your senses that you may the better judge; learn not to be mere routiners—miserable machines in the hands of the authorities. Kick the authorities out of doors, and be yourselves authority for yourselves. This is the way to show yourselves free and independent, and it is the only way, for, if you think yea or nay because Hippocrates or Sydenham thought so, you are their slave, their vassal." Kick the authorities out of doors. Excellent advice. "A Daniel come to judgment—yea a Daniel." Our author appears to forget that he is now classed among the "American authorities" on midwifery and its cognate branches in medicine; if he does not, in advising his pupils to abide by the decisions of their own judgments and to be independent of authorities, and in the same breath calling those who have dared to differ from himself "snobs—martinets," and such like uneuphonic names, he exhibits a strange inconsistency. An inconsistency he might have been saved from, if he had taken the remarks of his critics in perfect good humour.

This volume would appear to have been designed by the author for general perusal. If so, he has committed a serious error in reflecting so frequently on his professional brethren. In a work *exclusively* intended for the eye of the profession, such conduct is scarcely pardonable, and betrays a disposition, on the part of the writer, to arrogate to himself a greater amount of professional knowledge, and diagnostical acumen, than is possessed by others occupying a high position in medicine. The following is a fair sample of what is frequently met with in the work: "I have had clots of blood sent to me from very good doctors, under the supposition that they were the organized products of a regular fecundation. I have had a patient be-devilled (!) for three months by an eminent practitioner, under the supposition that she was laboring under menorrhagia, whereas nothing was the matter with her but a dead and undischarged ovum."

In common with other reviewers of Dr. Meigs' work, we cannot but object to the conversation with Miss Helen Blauque being adopted as a model style of conversation with young lady patients. If Dr. M. imagines that a long disquisition on physiology, which it is clearly impossible for a person to understand unless they have a certain amount of preliminary anatomical knowledge, is to be of any benefit to invalid ladies, he is, we should consider, singular in his opinion. Notwithstanding his very learned, ornate, and extended statement to Miss

Blanque of the peculiarities of her case, that sensible Lady Myth very naively says, at the termination of the colloquy:—"Depend upon it, doctor, I shall try to follow your advice. I cannot say that the conversation I have had with you has enabled me to understand as clearly as I think you do, what ails me, and what I require for the re-establishment of my lost health and spirits. Perhaps, indeed, a long preliminary study is requisite to the understanding of those points, that you characterize by such very hard words, as en—en—end—angium, was it not? and hæmatosis? Yes; hæmatosis; and other such gibberish," p. 189. The exquisite flourish, moreover, by which this truly remarkable conversation is introduced, is quite unique in its way. It would undoubtedly grace the pages of the most flashy twelve-and-a-half cent "yellow back" of the popular literature of the day; but, the position it occupies in a work on medical science, is rather questionable. We transcribe it for the delectation of our readers:—"I was requested on the — day of — 184— to visit Miss Helen Blanque, at No. — Chesnut Street; and when I called at 11 o'clock in the morning, I found her reposing in a luxuriant *fauteuil* of the richest crewelwork. She was arrayed in a beautiful *negligée*, and her slippered feet rested on a low ottoman. The apartment was richly furnished with mirrors, and chandeliers, and candelabras, and carved sofas, with chairs of every form and hue. A fresh bouquet stood upon the little table near her, by half a dozen volumes, some of which were opened and lying on their faces, as if taken up and laid down in disgust; her hair was in curls, but carelessly; and the *tout ensemble* of the young lady was expressive of languor and indifference, if not of pain or distress," p. 161.

"O rare—he doth it as like one of
These harlotry players as ever I see.—SHAKS.

It forcibly reminds us of the descriptions we have met with in the "monthlies" of the fashionable young lady who is plunged into the deepest distress, and refuses to be comforted on account of some accident to dear—dear Fido—her favorite poodle.

In all treatises on diseases of women, displacements of the womb occupy a very considerable space. Indeed, from the earlier periods in the history of medicine, distinct accounts have reached us of the attention which they received from the Fathers in the divine art. This need not excite any surprise, when we consider the extreme frequency of their occurrence; the vast amount of pain and suffering to which they give rise, and the troublesome constitutional derangements which they frequently induce. Woman being constituted alike at all ages of the world, the same anatomical elements entering into the construction of her several parts, diseases, such as those under consideration, must have exist-

ed and been known even from the beginning. Of all the deviations from a normal position, that in which the uterus subsides in the pelvis, the os uteri approximating to the ostium vaginae, or what is commonly called, falling of the womb, is infinitely more frequent than other forms of displacement. Dr. Meigs has evidently had great experience in the treatment of these affections. In the extensive practice which he has enjoyed for so many years, cases of every variety, and exhibiting every possible form of complication must have come beneath his notice. That they could not have been presented to a better observer—one more capable of appreciating everything of interest, either in the semicology and pathology of each individual case, is sufficiently obvious from the letters which contain his remarks on this form of deviation. They are replete with sound practical advice, which no practitioner need fear to follow. There has long existed a dispute among modern writers on diseases of females as to the true pathological causes of prolapsion of the uterus. Dr. C. M. Clarke attributed it to—1st, Relaxation of the broad and round ligaments above. 2nd, A want of tone in the vagina below." (*Dis. of Females*, vol. 1, p 72.) While most writers admit the second cause mentioned by Dr. Clarke, there are many, among whom we must class our author, who refuse to admit the agency of the first. Dr. Hamilton first denied that the ligaments afforded little, if any, opposition to procidentia, but that the resistive power was to be found in the connections of the uterus and vagina with surrounding parts. These experiments, repeated by Dr. Ashwell, yielded similar results. (*Practical treatise on the Diseases peculiar to Women*, p. 378.) Dr. Davis, however, believes that prolapsion is entirely the result of weakened and extended suspensory ligaments, and is not in the least dependent on a relaxed state of the vaginal walls. "An organ," says he, "susceptible of development to an almost indefinite extent, as the vagina is, can scarcely have been intended to maintain a degree of contractedness sufficient to enable it to sustain the uterus in any given position. Add to this consideration the fact, that the vagina is actually most ample, where the hypothesis now questioned requires it should be most contracted." (*Obstetric Medicine*, vol. i. p. 524.) The most prevalent view, that which obtains the greatest currency, is a modification of Dr Clarke's. Relaxation of the Vagina and its connexions with neighboring parts is the great cause, weakness and extension of the ligaments, the minor.

Dr. Meigs describes a "neuralgia of the abdomen," simulating peritonitis, and produced by prolapsus of the uterus, of the greatest practical importance. The first case he met with of this affection, was in the year 1828, and he thus records it:—"I was called to see a mulatto woman, in Water Street, aged about thirty years. She was lying upon her back;

her knees were drawn up, and she was supporting the bedclothes with her hands, lest they should press upon the abdomen, which was so exquisitely tender and sore that she could by no means endure their weight or pressure. She had been suffering this pain for many hours, and had a short, quick respiration, on account of the pain which any extensive motion of her diaphragm communicated to the abdomen, and which made it necessary for her to restrain the respiratory movements as much as possible," p. 147. From these symptoms, he felt convinced that she was laboring under intense peritonitis. On placing his fingers on the pulse, however, he found that it was of a natural volume and frequency. The incongruity of the signs led him to enquire further, and he found that "she had borne several children, of which the youngest was now about a year old." He now became convinced that the pains depended upon "a neuralgic state of the abdomen, produced and maintained by a displaced womb;" and on being allowed to replace the womb, all pain ceased, and she could tolerate the freest manipulations of the abdomen, without shrieking or complaining. Since that period he "has seen sixty or more similar cases, all of which bore, with the exception of the state of the pulse, the most striking resemblance to acute peritonitis."

Dr. M. is a strong advocate for the use of the pessary in the treatment of prolapsus uteri. The one he prefers, in ordinary cases, is the globe pessary, first invented by Dr. Sandys of London. This form was used altogether by Dr. Physick of Philadelphia, and is known in that city and throughout the United States as Dr. Physick's globe pessary.

In his remarks on Retroversion, Dr. Meigs exults greatly over the "authorities," inasmuch as they do not mention relaxation of the round ligaments as the pathological condition which permits the occurrence of this displacement of the womb. He gives a list of writers, including many of the best observers of diseases of women, whose works do not contain one word in reference to this cause of retroversion. Velpeau he excepts, and gives the following quotation from him:—"But for them the womb would every moment be turned over backwards by the bladder, which is distended several times every day with urine." Now, we cannot allow ourselves to suppose, even for an instant, that Dr. Meigs is unacquainted with a work entitled, "A Practical Treatise on the Diseases of the Uterus and its Appendages. By Mme. Veuve Boivin, Sage-Femme surveillante en chef de la Maison de Santé, etc; and A. Dugès, Professeur a la Faculté de Médecine de Montpellier, etc." Why, then, has he suppressed the recorded views of these two eminent writers? At page 73, Hemings translation, they say:—"Hence the necessity of two predispositions, or of one at least, to induce retroversion.:

1st, The relaxation of the uterine ligaments, as in prolapsus; 2d, Increased volume of the uterus. With the former of these conditions, retroversion will be found sometimes, even in the empty state of the uterus, etc."

Dr. Meigs does not believe in the physometra of writers. He is of opinion that most of the instances adduced as example of the disease, must have been abdominal tympanitis. He has been consulted at different times as to the existence of pregnancy in females, in whom he has found, after careful examination, the swelling of the abdomen and the accompanying sympathetic phenomena to depend upon a chronic tympanitic condition of the bowels. His treatment for chronic tympany—"those samples of it that are unattended with any severe or violent and dangerous local disorders, such as ulcers of the bowels, &c.,"—consists in applying a funnel roller, about four inches wide and three or four yards long, to the abdomen, and administering carminative aperients and tonics. A formula which he looks upon as the most reliable in all cases of tympanitis—one, in fact, which he invariably has recourse to, is the following:—"Take one ounce of manna; one drachm of anise seed; eight ounces of boiling water. Mix them, and let the mixture rest for half an hour, then strain the liquor. To the strained liquor add three or four drachms of carbonate of magnesia, so as to make a perfect mixture. A wine-glassful may be given as a dose, to be repeated every two hours, or three hours, until it operates." P. 323.

The menstrual discharge has at all ages been regarded by the female with feelings peculiar in their nature. She has "learned by a time honored tradition handed down by the mass of mind from age to age, that her life, health, comfort, fruitfulness, and beauty, have a strong alliance with and dependance upon this office. It has become, therefore, a public sentiment—a *she vox populi, vox Dei*—that commands it to be respected." P. 435. Among the Jews the conduct of the woman during menstruation was regulated by the levitical law. She was placed apart for seven days and everything she touched was deemed unclean. And if a person touched her, or any thing on which she had lain, or used in any way during the time of her separation, such person was unclean. We have been informed by an intelligent old gentleman, who lived many years among the aborigines inhabiting the tract of country north of the great lakes, and who was married to an Indian female, that a similar custom obtains among this branch of the family of North American Indians. Whenever a woman has her menstrual flow upon her, she is placed in a hut apart from others for seven days, at the lapse of which time she cleanses herself and returns to her friends. An Indian will studiously avoid going near the hut; he will not touch any vessel or utensil which

has been used within the place; and should he, by accident, come in contact with anything of the kind, he will wash himself carefully. To those who hold the opinion that the North American Indian is a descendant of the lost tribes, the agreement between the Jewish and Indian custom during the period of menstruation is of importance, as affording strong collateral proof of the correctness of their views.

We had marked out many other portions of Dr. Meigs' work, for notice, but our space will not permit of more extended remark. Our readers had better purchase the work, and peruse it carefully; for, maugre the fine writing, pedantry and verbosity, it is replete with sound practical views, and is evidently the production of a man of vast experience and thoroughly conversant with his subject.

X.—*A Universal Formulary: containing the methods of preparing and administering officinal and other Medicines. The whole adapted to physicians and pharmacutists. By R. Eglesfeld Griffith, M.D. A new edition, carefully revised and much extended, by Robert P. Thomas, M.D. With Illustrations. Pp. 651. 1854. Philadelphia: Blanchard & Lea. Montreal: B. Dawson. 15s.*

This new edition of Dr. Griffith's work has been increased in size by seventy pages. "Beside the strictly medical formula, many have been added from authentic sources for the preparation of essences, perfumes, inks, soaps, varnishes, &c. &c." It is one of the most useful books a country practitioner can possibly have in his possession. In addition to the "Universal Formulary," which occupies 412 pages, it contains "Dietetic Preparations not included among the previous prescriptions—List of Incompatibles—Posological Table of the most important Medicines—Officinal Preparations and Directions—Poisons, &c. &c."

XI.—*A Clinical Introduction to the Practice of Auscultation, and other modes of Physical Diagnosis in Diseases of the Lungs and Heart. By H. M. Hughes, M.D., Fellow of the Royal College of Physicians; Assistant Physician to Guy's Hospital, &c. Second American, from the second and revised English edition. 1854. Pp. 304. Philadelphia: Blanchard & Lea. Montreal: B. Dawson. 5s.*

Physical diagnosis of diseases of the chest is best studied at the bed side of the patient. There is much preliminary knowledge, however,

to be obtained from works such as Dr. Hughes', which will be of great use to the student in prosecuting his clinical enquiries. While, therefore, we would advise him to study works on auscultation and percussion, we would, at the same time, assure him, that he will never become a successful diagnostician unless he continuously and unweariedly practices both in the wards of the hospital.

CLINICAL LECTURE.

Clinical Lecture on Amputation at the Knee-Joint. By WILLIAM FERGUSON, Esq., F.R.S., Professor of Surgery in King's College, London, and Surgeon to King's College Hospital, &c.

(*Medical Times and Gazette.*)

Gentlemen,—The case now before you is well worthy of your notice. It is brought into the theatre that you might see it, and I take the opportunity of making some observations upon “amputation at the knee-joint.”

This boy was admitted into the hospital January 25, 1854, suffering from violent inflammation in the leg, acute necrosis of the tibia supervening; in other words, suppuration and separation of the periosteum of the tibia had set in, quickly undermining the boy's constitution, so that nothing could be expected, save the hazard of a long illness with a remote chance of dead bone being thrown off; what I therefore considered a better mode of treatment, and eventually followed, was the removal of the diseased extremity. The boy, as I said, was in a very bad state of health, and it seemed doubtful whether an operation undertaken at that time would be successful.

Surgeons of experience are familiar with instances of this disease, as acute necrosis is not an uncommon affection. But it is to the treatment of the case that I wish to draw your special attention. I am also well pleased so to do, as some of the particulars had escaped my memory, and the mode of amputation here followed has been rarely performed in this country. I allude to amputation at the knee-joint, which, I think, has not been performed, or at least recorded more than a few times in the history of English surgery; and as it is one in which I am much interested, you will, I hope, follow me with a like enthusiasm. This was essentially an amputation at the knee-joint. Now, there is a great difference between amputation at the knee and at the knee-joint, and it is easy to draw the distinction.

In my younger day it was common to amputate at the knee,—for an amputation high up on the tibia might be termed an amputation at the knee; so also an amputation very low in the femur. I have seen these operations very frequently performed, and have frequently so operated myself; and I think such amputations may be justly said to be amputations at the knee.

When Mr. Syme introduced his operation for amputation of the foot at the ankle-joint, some surgeons contended that the operation was not a novelty, as amputation at the joint had been proposed before, although not performed in the way originally described by Mr. Syme.

In the time of Hey, who wrote an able treatise on amputation of the leg, amputation was performed at the knee, but not at the knee-joint. I am thus particular in the definition, as some think that these terms are too particularly insisted on. How often do we hear surgeons talking of the femoral artery as if only one femoral existed, whereas there are three; and perchance the one specified as the femoral is not truly the femoral artery. Here, then, we see the value of a proper application of terms.

But, to return to the case under consideration, I will read you the particular points of the case as detailed in the Case-book, and then make some remarks upon amputation at the knee-joint, and the advantages of such an amputation.

“ W. M., aged 11, is a native of Sydenham, and states that he has always had remarkably good health up to the time of his present illness, which began six weeks ago. After having been out sliding the whole of one day, he came home in the evening complaining of pain in both legs, more especially in the right knee, upon which he had fallen in the course of the day. In a few days after this he was seized with shivering and violent deep-seated pain in the right leg and ankle-joint, which was followed by considerable swelling of the limb, commencing at the ankle and extending up to the knee-joint. The integuments appeared red, as if erysipelatous. His sufferings now became excruciating, more particularly if pressure were made on the limb, or if he attempted to move it. Notwithstanding the active measures employed by his own surgeon, the inflammation continued to increase, and matter formed, which soon became discernible in the soft parts. An incision was consequently made on the outer part of the ankle-joint, and about a pint of pus evacuated. A few days after this another puncture was made in the upper part of the leg, and more matter was discharged. During this time his general health had become much impaired, and he became extremely emaciated.

“ When admitted into the hospital, January 25, 1854, Mr. Fergusson made an accurate examination while the boy was under the influence of chloroform, and found the knee-joint much diseased, the surfaces of the bones being rough and denuded, and a considerable collection of matter in the upper part of the leg, which was evacuated.

“ The patient was supported by stimulants for a few days till his health was deemed sufficiently good to stand the shock of an operation.

“ When placed in the operation table under chloroform, a small opening was made a little above the knee, and a quantity of unhealthy pus was evacuated. Mr. Fergusson then performed the operation of amputation at the knee-joint in the way detailed in his own work.

“ The state of the bones of the leg clearly demonstrated the necessity of their removal. A section being made of the tibia, the cancellous tissue of the upper part of that bone was found filled with pus, while that tissue at the lower part was necrosed, and the epiphysis separated. The articular cartilages of the ankle-joint had ulcerated, and the ends of the

bones were eroded. The articular cartilage on the head of the tibia was so soft that a probe passed readily through it, and the bone was bare and carious in several spots, especially around the articulation with the fibula.

“The patient rapidly improved, and was discharged cured March 11, 1854.”

Now, if I be not mistaken, the late Mr. Liston performed a similar operation at University College Hospital; but I am uncertain as to its performance by that gentleman, or to the date, if it were performed. When I first performed the operation, to my knowledge it had not been previously done in England, for I cannot find any record of the fact, and such an operation performed for the first time would not likely be passed over without some notice being publicly made.

This operation has since been followed by others, among the first of whom I may name Dr. George Williamson, now in India, one of my former assistants. The first time I performed this operation was on the person of a full-grown man; (the case is mentioned in the third edition of my work on “Practical Surgery;”) and I have rarely seen or made a better stump. He has repeatedly walked forty miles a-day, and once walked one hundred and twenty miles in three days; and, what is more astonishing, his false leg was but indifferently made and padded, the spoke of an old wheel being considered by the man an excellent substitute for a more expensive contrivance.

In consequence of such great advantages arising from my first trial of the operation, I have since frequently performed it. Notwithstanding, several objections have been made. Mr. Syme, who had performed the operation in Scotland before I attempted it here, had taken a dislike to the proceeding from something that went wrong in his own cases. Mr. Syme imagines that greater danger is incurred by a larger surface of bone being exposed, by the removal only of the condyles, than if the bone be sawn higher up in the shaft. But mischief, I think, is more apt to occur when the bone is sawn in the shaft. Where the bone is vascular, I think there is little chance of necrosis, and much less of caries; and you have frequently seen how kindly the two cut surfaces of the spongy portions of bone heal in cases of excision of the elbow-joint.

Another objection made is, that the length of the stump is very awkward. This I do not admit; if the stump be short, an apparatus cannot conveniently be fitted, and the bone, when cut too high, is liable to be tilted forward by the psoas and iliacus muscles. Indeed, I cannot perceive any objection to a long stump. Objections have been made to a long stump of the leg, and amputation of the leg is often recommended to be done a short distance below the knee, but I am doubtful of the utility of such a step as a general rule.

Again, a long stump in the thigh can never hinder in any way; besides, the leverage is much greater than if it were only half the length. In addition, the great breadth of bone, when well covered, is better able to support the weight required to be borne.

This objection might be raised by some,—that this operation is not truly an amputation at the joint, as the condyles were taken away. If such be allowed, then one might say that Mr. Syme’s operation at the

ankle is not an amputation at the joint, for he always removes the malleoli; but such an objection could not be held reasonable, and the operation now under consideration I deem a great addition to the history of amputation, and have taught it as such for the last ten years.

I now perceive that for nearly the first time mention is made of this operation in the surgical journals of the day, which, I make no doubt, will greatly tend to the advantage of this department of Surgery.

When I first commenced my profession, it was an understood rule, with but few exceptions, that the coverings of the bone in an amputation should be taken from the sound parts of the region where the amputation was performed; as, for instance, in amputation of the thigh, the soft parts were always taken from the substance of the thigh; so also in amputations of the leg. But in this case, and in amputation at the knee, the soft parts covering the end of the femur are actually the tissues that originally constituted the calf of the leg.

In the history of amputation it has always been the aim of the surgeon to make a good stump, its quality depending greatly upon the proper covering of the bone. If the soft parts be scanty, a bad stump must result; if, on the other, the covering be too large, the result will likewise be unsatisfactory. A remarkable instance of this latter kind was under notice last summer in this hospital. But there is more danger of the covering being scanty than profuse. The fleshy condition of the covering, as you know, is ultimately converted more or less into a fibrous texture.

Though amputation cannot be said to be the opprobrium of Surgery, an axiom I laid down in my first paper on Conservative Surgery—"For the greater proportion of sound material that we can save in any operation on the body, the nearer we come to the perfection of good Surgery"—yet I think amputation at the knee-joint may fairly have at least a footing in the province of conservative Surgery.

This operation has lain for some time in abeyance, but I now find my name associated with it in the journals, in papers which have recently appeared on the subject from the abler pens of my friends Mr. Greenhow, of Newcastle, and Mr. Jones, of Jersey—men who, with myself, I would fain hope, have no desire to have their names connected with novelties, unless they be for the good of our fellow-creatures and the advancement of Surgery.

In cases of injury of the joint, including great contusion of soft parts, I am doubtful whether the operation should not be effected above the seat of injury. As to the mode of performing the operation, I first make a small anterior flap, drawing the knife across the front of the joint, and then, inserting the point of the blade behind the femur, thrust it through to the other side, close to the condyles; then, carrying it downwards, cut the posterior flap from the calf of the leg. The saw is then applied a little above the condyles, and the flaps brought together as in an ordinary amputation.

Mr friend, Mr. Greenhow, of Newcastle, saws through the bone before making the posterior flap; but I prefer the method I have described, although the great aim is to obtain sufficient material to cover the bone.

In some instances I first effect the separation of the leg at the articular ends, and thereafter cut away as much of the femur as seems need-

ful. In all cases it is requisite to take the full length of the calf for the posterior flap, as the soft parts in the back of the thigh contract very much in the course of time. The patella might be saved in some examples, but in general I think it would be best to remove it.

I have been thus particular in my remarks, as you will not find any particular mention of the operation in any English work prior to my own.

THERAPEUTICAL RECORD.

(*New Hampshire Journal of Medicine.*)

Oil of Morphia.—M. Lepage (Jour. de Pharm., April, 1854) refers to a previous article by himself, on the solvent powers of chloroform, in which it is stated that morphia and its salts are insoluble in that liquid, and confirms his results.

The sulphate and hydrochlorate of morphia are but slightly soluble in fixed oils at the ordinary temperature, but more so when hot, M. Lepage recommends that a mixture of almond oil and hydrochlorate of morphia should be heated just before it is to be used.

As a substitute for the oil of morphia, M. Souberain suggests a solution of morphia in glycerin, viz.:—Acetate of morphia, six grains; glycerin, a fluid ounce. Dissolve the morphia in the glycerin with or without heat.

Mounsey's Preston Salts.—The following directions for making this preparation are taken from the London Pharm. Journal, viz.:—Take of true oil of cloves, English oil of lavender, of each a drachm; oil of Bergamot, five drachms; strongest solution of ammonia (sp. gr. 880), one pint; mix these together. The bottles are then to be half filled with rough carbonate of ammonia, and filled up with the carbonate in fine powder. The salt is then saturated with the above solution, and corked closely.

Oil of Protiodide of Iron.—M. Gille, of Paris, has suggested that oil of almonds may be impregnated to a certain extent with protiodide of iron, provided the iodine, iron filings and the oil are mixed together, and shaken till the odor of iodine disappears, which requires several days. The following is the formula suggested:—Take of pure iodine, in powder, 34 grains; iron filings, 230 grains; oil of almonds, 25 ounces, (Troy.)

These ingredients are mixed together, and agitated occasionally for several days. The oil of protiodide of iron, when complete, has a slight amber color, no odor, and almost without taste. It preserves its physical and medicinal properties for some time without appreciable alteration, and should be kept in glass-stoppered bottles.

In the *Annals of Pharmacy*, from which we extract this notice, it is

not stated whether M. Gille proved the presence of iodide of iron in the oil. It is probable that some reaction occurs between the oil and the iodine, prior to or coincident with its action on the iron.

Saccharated Iodide of Iron.—The Hanover Pharmacopœia gives a formula for this preparation. Sixteen parts of iodine, four of iron filings, and sixty-two of water, are gently heated together until the solution becomes green, when it is rapidly filtered, and mixed with forty-eight parts of pulverized sugar of milk. This mixture is then to be evaporated by means of a water bath, until it acquires a thoroughly dry consistence. Thirty-two parts of sugar of milk are then to be added, and the whole rubbed in a mortar into a fine powder. When properly made, it is a yellowish white powder, soluble in seven parts of water, and requires to be kept in closely stopped bottles. This powder contains rather less than one per cent. of iodide of iron.

Coating Pills.—M. Calloud suggests a new material as preferable to flaxseed and sugar:—Take of tragacanth, in pieces, 50 parts; distilled water, 100 parts; pure sugar of milk, in powder, 1000 parts.

Make a mucilage with the tragacanth and water, squeeze it through a linen cloth as in making lozenges, mix it with the sugar of milk to form a paste, spread this on plates, dry it in a stove and pulverize it. The pills are coated by moistening their surface with water and immediately rolling them in the powder. The moist fixes a portion of the powder on their surface, and forms a coating.

PERISCOPE.

Spontaneous Gangrene in a child eight months old. By James Sidey, Esq.—The gangrene had appeared on the head, face, and hands, and the appearances were well illustrated by a series of casts. The right ear and the entire hairy scalp were of an intensely black colour, and on both cheeks patches existed about the size of a half-a-crown piece. The right thumb and the backs of both hands were similarly affected. The child was noted to have been restless and feverish on May 22nd, and on the 23rd a slightly darkened ring was found to have formed round the thumb about the middle of the first phalanx; in a few hours the whole thumb was gangrenous, and the dorsum of the hand became involved. On the ear, the gangrene commenced with the appearance of flea-bite, and subsequently extended rapidly to the scalp, assuming a remarkably regular form, and giving the child the appearance of wearing a black skull cap. The pulse was observed to be very feeble, and the mouth unaffected. Death took place in twelve hours from the first appearance of the gangrene on the thumb, the child being sensible and continuing to suck well up to a few minutes before death. Its previous health had been tolerably good. The only medicine it had been taking prior to the su-

perversion of the gangrene was a little ipecacuan wine and carbonate of soda for an attack of hooping cough, from which it was convalescent.

Dr. A. Wood said that the case was a remarkably interesting one, and forcibly reminded him of cases of blood poisoning, as—*e.g.* from ergot of rye, which were attended with gangrene. It was very evident that in the present case the peculiar appearances were not due to any affection of the blood vessels, but rather, as he had stated, to a poisoning of the blood itself. The symmetrical disposition of the gangrene, the suddenness of its approach, and the rapidity of the fatal termination, were especially noticeable.

Dr. Begbie only once met with a case of spontaneous gangrene of the scalp, which was a very rare lesion. The patient in whom he observed it labored under typhus.

Dr. W. T. Gairdner mentioned the particulars of a case where the tip of the nose, after assuming a bloodless and discoloured appearance, became gangrenous. The patient was a young lady who, on dissection, was found to have laboured under a tubercular disease of the kidney. Part of the ureter and bladder was also affected.

Dr. M. Duncan had observed a somewhat similar case to that related by Dr. Gairdner in the Infirmary at Aberdeen. The patient was a woman and had disease of the heart and kidneys. Several weeks before death the tip of the nose became gangrenous, and a line of separation was formed. A single toe or finger was also gangrenous.—*Dublin Med. Press.*

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS DIGNITATEM ARTIS MEDICÆ TUERI.

HYGIENE AND CHOLERA.

To hear this one—that one—in short, every one, talk most glibly on the necessity of attention to personal and public hygiene, if individuals or communities desiderate a continuance of health; and of the vast importance of judicious sanitary measures in warding off an approaching epidemic, or in diminishing its virulence, should a community be invaded by it,—a person would infer, that sound advice in all matters relating to this subject, need only to be propounded to meet with universal favor and adoption. No inference, however, could possibly be more at variance with what actually would take place. Men, as a general rule, when attacked by disease, are willing to submit to every measure which is supposed necessary to the re-establishment of health. They follow out with scrupulous exactness the directions of their physician as to the

amount and quality of their food—the length and nature of their exercises, &c., and swallow, with almost religious observance, the stately appointed doses of medicine ; but, so long as they enjoy vigorous health, they neither find it convenient nor agreeable, either personally, or collectively as communities, to attend to the advice of those who have made personal and public hygiene the object of study. The pursuits of business, of trade, of profession, of pleasure, are followed with a devotion and recklessness of consequences, which prove they find it, individually, a most difficult matter to pay any attention to those circumstances necessary to the conservation of personal health ; whilst the stagnant pools and undrained flats of Griffintown and Quebec Suburbs, reeking, in many instances, with filth and corruption, and, worse still, the sites of pools, the water of which has evaporated by the action of the sun—the villanous odors emanating from decayed and decaying animal and vegetable matter, which impress the olfactories of the passer-by in certain streets and lanes—the masses of refuse and garbage allowed, by the city Fathers, to be deposited during the winter months under the designation of *snow*, quite within the precincts of the city—the imperfect drains, and the notoriously insufficient supply of water,—abundantly attest that the people of Montreal, as a community, no matter what they may say to the contrary, consider measures necessary to the preservation of the public health, things of very small moment.

Our city has just passed through a season of sickness and death: One of the most dread diseases which has ever appeared to afflict mankind, has made sad havoc among our citizens. No less, in our opinion, than *thirteen hundred* persons were cut off by cholera during the late epidemic. As early as February last we gave warning of its approach, and made the following remarks, which were allowed to pass unheeded :—

“ If all the investigations into the nature and causes of cholera have been entirely barren of results, the observation of its progress and development, and the study of its history have made us acquainted with some important facts. In the first place, we have learned that *cholera can be arrested*. It is now admitted that the vast majority of cases of cholera begin with simple diarrhœa. When seen in this stage, and proper remedies administered to check the inordinate dejections, the chances are that the disease will not proceed to the stage of collapse. Secondly, That when it has advanced to the stage of collapse, the probabilities are that it will eventuate in the death of the patient. Thirdly, That hygienic regulations strictly enforced among communities, have a great influence in limiting the extent of its ravages. With a knowledge of these facts, and in the almost certain prospect of a speedy visit from this dreadful scourge, a fearful responsibility rests on our Provincial Government. Inaction, under these circumstances, becomes criminal. It is no time when the disease is in our midst, committing havoc in our families, to adopt

measures to keep it out. The time of panic and confusion is not the time for well-directed and effective action. Besides, the duration of the epidemic is so short, measures adopted to diminish its virulence, on its first appearance, are scarcely brought to completion, ere the disease has expended itself. We are left to mourn our dead with the anything but consoling reflection that, had the same amount been expended and the same steps been taken at an earlier period, *before* the disease manifested its presence, many valuable lives would have been saved.

"A Central Board of Health, with power to appoint local boards throughout the Province, should at once be established. A rigorous investigation of all the cities and towns, more particularly their suburbs, should be instituted under the direction of this board. At this season of the year, masses of animal and vegetable matter in a congealed state, admitting of easy removal, are to be seen in the yards and enclosures of the various suburbs of our cities. If left to the summer, the putrefactive process sets in, giving rise to gaseous emanations which are exceedingly deleterious to the health of all within their influence. An effective system of drainage, for the purpose of removing stagnant pools of water, should be put into operation early in the spring. People should be obliged to thoroughly cleanse and whitewash their habitations. All public drains and sewers should be cleansed, and care taken that they have free vent. A plentiful supply of fresh, pure water should be afforded to the poorer portion of the population. And lastly, preparations ought to be made for a medical house-to-house visitation. Of all the means adopted in Great Britain to check the progress of the epidemic, "visitation" has been the most efficient.

"We hope to see this matter taken up immediately by those in authority; for should cholera visit us in our present unprepared condition, a great mortality would inevitably be the consequence—a mortality, moreover, which we firmly believe may, by the timely adoption of the measures adverted to, be materially lessened."

It is quite true that a central Board of Health was established; but it was not established until the epidemic was raging fearfully in Montreal and Quebec, and had made its appearance at various other points. Indeed, for all the good it effected, it might have been allowed to remain unformed. The only intimation we ever received of its vitality, was the receipt of a paper containing a notoriously incorrect return of the number of deaths that had occurred in the principal cities.

In Montreal there was no systematic and vigorous investigation of the suburbs—there was no effective system of drainage adopted—the people, as a general rule, were not obliged to cleanse their yards and privies, or to whitewash their habitations—there were no steps taken to supply the poorer population with an abundant supply of water; and there was no medical house-to-house visitation. The Mayor, however, wrote and published a pamphlet on the prevention and treatment of cholera, the first edition of which was distributed gratuitously, while the second and

enlarged edition was sold at Dawson's for sevenpence halfpenny,—stone and lime were placed over the sewer grates—lime was deposited at the different police stations and distributed gratis to every poor unlettered person who might accidentally become acquainted with the fact—and lastly, a local Board of Health was formed at so late a period that their principal official act consisted in an announcement of the termination of the epidemic. These, as far as we can learn, were the principal measures adopted to prevent the spread of the disease. We hope the public may become alive to the necessity of obliging those in authority to have recourse to *more prompt and effective* action at another time; which time, nevertheless, we sincerely trust, may be far distant.

London Medical Circular.—We are happy at being able to congratulate our esteemed exchange upon its improved condition. Its sheet has become considerably enlarged, and other alterations made connected with its typographical character. It already enjoys nearly as large a circulation as both the *Lancet* and *Medical Times and Gazette* together. From the stamp return recently published it appears that the number of stamps issued to the three medical journals of the metropolis during 1853 was:—*Medical Circular*, 106,546; *Lancet*, 82,000; *Medical Times and Gazette*, 65,025. The *Medical Circular* is published weekly, and contains eight quarto pages of closely printed reading matter. After the present year its cost will be only a pound sterling. It is devoted to the reflection of medical literature in general, and of English medicine in particular. Among other headings into which its matter is divided are the important ones of Lectures, Hospital Reports, Reviews and our Note Book. It is well deserving of patronage and we would suggest to our Anglo-Canadian friends that they cannot lay out a few shillings better than in subscribing to it. A simple address to the publisher of the *Medical Circular*, 128 Strand, London, with that of the party wishing it, will insure its receipt.

Annua! Announcements of Medical Colleges.—We have up to the time of writing been favored with those of Jefferson Medical College, Philadelphia, of Pennsylvania College, Philadelphia, and of the Medical College of Ohio. All these exhibit the institutions about which they are concerned as in a flourishing state and having prospective encouragement.

During last session 627 students attended Jefferson College, and the graduates number 270; the number of the latter have been steadily increasing during the past seven years. In 1846-'47 there were but 181. We perceive that the fee for each professor's class continues to be alike,

or the same to all. This is but just and equable, for the expenses and labor of the different lecturers are *ceteris paribus* alike, though no doubt each one would fain make his own to be the greatest. This plan is now generally followed in the States, it having been found to draw the largest houses.

Some changes have occurred in the professorships of Pennsylvania College, owing to those of practice of medicine and surgery having been vacated. The professor of surgery has at his own request been transferred to the chair of obstetrics thus creating vacancies in the chairs of practice of medicine and surgery, which have been filled by the appointments of Drs. A. Stille and John Neill. Fees as at Jefferson \$15 for each course.

The announcement of the Medical College of Ohio is the 35th that has been yearly circulated, and from the commencement of the institute in 1819-'20 to the present time over 5,000 pupils have attended its teachings. Where in the world do all the young doctors go?

Fifth Annual Report of the Female Education Society, and the New England Medical College.—The ladies complain that “the profession as present constituted is like half a pair of shears. And hence the poor work they make in cutting the thread of disease.” This grievance will, by the *blessings* of their society, be blotted out forever, the pair of shears will soon be made whole, and then humanity shall flourish in immortal youth, and disease will reign no longer. We are glad to be able to correct, from the report itself, a rife mistake. It is usually supposed that a female doctor is either a starched spinster or a weedy widow, but this is a gross libel, as the following quotation shews, which is true even to the italics: “With such a *help* a man’s house instead of being a melancholy and expensive hospital as is too often the case, would be a citadel of health and the abode of cheerfulness and thrift.” This is a commendation which we are sure more than one benedict devoutly wishes for, and will afford mighty encouragement to any one who thinks of giving up the single state. One more extract we give for the benefit of any Canadian female who would like to join the craft: “Women will go where duty and humanity call, not only to Canada but to the frozen snows of Greenland or the burning climes of Africa. There is, however, need of some thousands of female physicians to supply the cities and towns of New England alone, so that they may not be obliged to make such long journeys to reach their patients.” Well, indeed, all this is highly proper, but we scarcely know which to admire most, the proffered intrepidity or the saving clause.

Appointments in McGill University.—The Governors of this Institution have been pleased to make the following appointments in the Medical Faculty, in consequence of the death of the late Dr. McCulloch, which lamented event we recorded in our last number. The chair of Midwifery and Diseases of Women and Children that he occupied during his life time, has been assigned to Professor Hall, whom we are sure will sustain its popularity and usefulness. For the many years he has been connected with the College, he has always been a favorite of the students. The Professorship of Materia Medica and Pharmacy, left vacant by this appointment, has been conferred upon Dr. Wright, formerly Professor of Medical Jurisprudence.

Medical Faculty of Laval University, Quebec.—The Medical Professors of this University are—Dr. J. Blanchet, of Medicine and Physiology; Dr. C. Fremont, of External Pathology and Operative Surgery; Dr. J. A. Sewell, of Internal Pathology and Special Therapeutics; Dr. A. Jackson, of Midwifery and Female Diseases; Dr. J. Z. Nault, of Materia Medica and Therapeutics; and Dr. J. E. Laundry, of Anatomy, general, descriptive, and surgical. The other chairs are not yet filled up.

Strychnine in Cholera.—We have much pleasure in directing the attention of the profession to Dr. Fraser's communication; because we are convinced that strychnine is the most powerful nervine now in use, and the best adapted for the removal of certain symptoms of cholera. The justness of this opinion is well sustained by the historical details of the recorded table, where an amount of success is exhibited from the remedy as must be most encouraging to those who may hereafter be called upon to treat the disease. Like other substances, strychnine will fail; but its experimental use is justified by the rebelliousness of the disease to medicine generally, and we hope, when strychnine is selected, its trial will be conducted in the judicious and scientific way recommended.

Annual Report of the City Inspector of the City of New York for the Year 1853.—This is a very complete document, clearly drawn up and full of valuable information. As it refers to matters, however, that have principally a local interest, we can only speak of it generally. We think a similar production should issue yearly from every town, which would exhibit the particulars connected with mortality and births during a given time, the prevalence of different diseases, causes of death, length of life, and similar facts of interest not merely to physicians but to all

men who have any concern about either morality or philanthropy. We wish something, even though it were but an approximation to the above, were done for Montreal, but it is hoping against hope as long as our city fathers are so given to talking, for till they have had their say, no sanitary action can be expected, and for all their says time is too brief.

Publication of Theses.—As an encouragement to students, we have concluded to select from among the theses yearly presented to the Medical Faculty of McGill College, one for publication, always providing that such a one be deemed by us, after an impartial examination, to be deserving of so distinguished an encomium. Our readers generally will not object to this, for, apart from the arrangement made not to encroach upon the limits of the Original Department of the Journal, we feel sure they will welcome the annual offering of a carefully compiled, well arranged, ably argued, and clinically elucidated thesis, as not unacceptable in point either of interest or profit. We have only, therefore to request, that in their perusal, they will considerably remember the limited book resources of the writers, and the small time that can usually be devoted by a student to such a task. In the present number is the commencement of the series, and if the successors equal it in merit, we shall be only too glad at having made the above resolution. In explanation, it is only necessary to add, that the gentleman to whom Dr. Craik's thesis was referred, expressed himself greatly satisfied with it, and stated its fitness for publication; and as we entirely concur with him, we have much pleasure in introducing it to the profession.

We copy the following notice of Dr. Hunt from the Buffalo Commercial Advertiser. The articles appearing in the editorial columns of the Buffalo Medical Journal, over the signature "H.," have always been read with pleasure by us:—

Professor Sanford B. Hunt.—We are much gratified to learn that this gentleman has been elected to the chair of Anatomy in the Medical Department of the University of Buffalo, rendered vacant by the resignation of Professor Moore, who is about to remove to Columbus, Ohio, and to take the chair of Surgery in the Starling Medical College in that city. To the members of his profession Dr. Hunt is widely and favorably known by his writings in the Buffalo Medical Journal, of which he is one of its two editors. He is also one of the contributors to Putnam's Magazine, and the frequency with which his articles are taken from that

periodical and published in various journals, evince the estimation in which his talents are held by the reading public.

“Dr. John Boardman, of this city, takes Dr. Hunt’s former position in the University as Demonstrator of Anatomy.”

New Licentiates.—His Excellency the Governor General has been pleased to grant licenses to Charles Tozer, of Aylmer, in the county of Elgin, gentleman, and Thomas Benson, of Kingston, in the county of Frontenac, gentleman, to practise Physic, Surgery, and Midwifery in that part of Canada called Upper Canada.

Reviews.—Hereafter, we purpose placing the price of each book we review immediately after the title. We do this for the benefit of our country subscribers, many of whom, we have been given to understand, would like to send for books if they were certain of the price. Mr. Dawson will transmit any book ordered from him, through the post office. The postage is only one half-penny per ounce.

Books Received for Review.—Skoda on Auscultation and Percussion, 1854. From Messrs. Lindsay & Blakiston, Philadelphia. Annual Report of the City Inspector of the City of New York, for the year 1853. From T. K. Downing, Esq., City Inspector.

HOSPITAL REPORTS.

MONTREAL GENERAL HOSPITAL.

Case of advanced Iritis, rapidly yielding to treatment. (Reported by Mr W. J. Henry.

Mary Ann Gardner, a stout Irish woman, aged 30, of scrofulous appearance, married, was admitted into the Montreal General Hospital, on the 1st August, by Dr. Wright.

From the patient’s statement, it appears that she caught cold on board a steamboat coming down from Hamilton about a fortnight ago, and a few days after her arrival in Montreal, felt a severe pain of a throbbing character, in one particular spot, just above the left eyebrow; this next passed to the temple—finally, the left eye became affected, and her sight began to be imperfect. She applied to a medical man here, and received some medicine from him, with directions to blister her temple. Experiencing no relief, she applied for admission into Hospital.

On examining the affected eye, a fine, light pink halo of vessels is seen radiating from the margin of the cornea; the iris is redder and

more dusky in appearance than that of the sound eye, and very convex appearing to bulge forwards; the pupil is very much contracted, and nearly triangular in shape, and the edge of a flake of light colored lymph is seen on its outer border. Sight is nearly lost, the letter of a book appearing like black lines.

A lotion of bichloride of mercury, intended for another patient with conjunctivitis, was by mistake applied to this woman's eye, and she was put on low diet. The next day she complained a great deal of the pain and smarting caused by using the lotion, and the mistake was discovered and rectified. The following prescription was ordered:—

R Cal. gr. ij.

Pulv. opii, gr. ʒ.

Fiat pil. vesp. et man. sumend.

Also— R Potass. iod. ʒiv.

Liq. potass. ʒvj.

Aq. ad. ʒvij.

m. Fi. mist. cujus cochl. maj ter in die sumend.

August 4. The eye is already changed in appearance; the pupil has nearly lost its contracted look, though still far from circular, and the fragment of lymph alluded to before, has diminished in size; iris does not bulge forward so much, and its color is changing. Gums are not yet affected by the mercury.

8th. A still greater improvement. Iris is of the natural color, and pupil nearly of the normal size. There is a slight irregularity, however, in its upper parts, as if a small segment had been removed from the circle. The fragment of lymph has entirely disappeared. The gums have been sore since Monday, when the pills were discontinued. Sight much improved.

The next day, as the eye was nearly well, and the patient wished to leave the Hospital, she was discharged.

QUARTERLY REPORT of the MONTREAL GENERAL HOSPITAL, ending
29th July, 1854.

Remaining from last Quarter.....	78	Discharged cured.....	414
Admitted.....	450	Died.....	29
		Remaining.....	85
	528		528
<i>In-Door Patients.</i>		<i>Out-Door Patients.</i>	
Males.....	268	Males.....	507
Females.....	182	Females.....	381
	450		888

DISEASES AND ACCIDENTS.

DISEASE.	Admitted.	DISEASE.	Admitted.	DISEASE.	Admitted.
	Died.		Died.		Died.
Abscessus	8	Dyspepsia	1	(Edæma	3
Aene	1	Emesis	4	Ophthalmia	15
Albuminuria	1	Epilepsia	2	Ostitis	1
Amaurosis	1	Erysipelas	1	Palpitatio	1
Ambustio	5	Febris Com. Cont.	44	Paralysis	2
Amenorrhœa	2	“ Intermitt.	4	Paronychia	3
Amputatio	2	“ Typhoid	13	Periostitis	2
Anæmia	1	“ Typhus	3	Peritonitis, chronic	2
Anasarca	1	Fractura	6	Phlegmon	1
Aneurismus aortæ	1	Furunculus	1	Phrenitis	1
Apoplexia	1	Gastralgia	4	Phtthisis	8
Ascites	1	Gastritis	1	Pneumonia	8
Blenorrhagia	2	Gonorrhœa	1	Purpura Hemorrh.	1
Bronchitis	13	Hemorrhagia	1	“ Simplex	2
Bronchocele	4	Herpes	1	Rheumatismus	50
Calculus (renal)	1	Hydrocele	2	Scabies	2
Cancer	2	Hypochondriasis	1	Scarlatina	2
Caries	2	Impetigo	1	Stricture	1
Cephalalgia	1	Inebrietas	1	Submersio	1
Cholera Asiatica*	61	Irritatio Spinalis	2	Synovitis	2
“ Canadensis	6	Laryngitis	1	Syphilis	8
Constipatio	2	Leucorrhœa	1	Tinea Capitis	2
Contusio	16	Luxatio	2	Tortio	1
Comp de Soleil	1	Mania	4	Ulcus	17
Cystitis	1	Metritis	1	Variola	3
Debilitas	7	Meningitis	1	Varix	1
Delirium Tremens	6	Menorrhagia	2	Vertigo	1
Diabetes Mellitus	1	Mentagra	1	Vulnera	8
Diarrhœa	35	Morbus Cordis	4		
Dysenteria	6	Neuralgia	1		

* The total number of cases of cholera admitted during the quarter, was 132. Of these, 71 died within three days after admission, and were consequently excluded from the Hospital Registers; 13 died after having survived more than three days, making the whole number of deaths 84, or about 63.6 per cent; the remainder, 48, or about 36.4 per cent, recovered. More than two thirds of all the cases were in a state of extreme collapse when admitted, many of them dying within an hour, and affording scarcely any opportunity for the employment of remedies successfully.

OPERATIONS DURING THE QUARTER.

Amputation of leg, 2; of phalanges, 3; of great toe with removal of metatarsal bone. Tumors excised, 2. Circumcision. Extraction of polypus. Tapping abdomen. Tapping tunica vaginalis, 2. Injecting tunica vaginalis. Injecting veins, 2. Total, 16.

Fractures treated.—Internal, 6; external, 2; dislocations reduced, 2. Total, 10.

MINOR OPERATIONS.

Opening abscesses, &c., 25. Bleeding, 4. Cupping, 28. Teeth ex-

tracted, 11. Vaccination, 4. Sutures, 2. Wounds dressed, &c., 8. Total, 114.

Attending Physicians—Drs. FRASER & SUTHERLAND.

ROBERT CRAIK, M.D.,
House Physician and Surgeon.

MEDICAL NEWS.

Dr. M. H. Atison, the supposed agent in forwarding the infernal machine to Cincinnati, which exploded and killed two persons, has been arrested in Iowa.—Dr. Linton, an accomplished scholar and physician, formerly a surgeon in the navy, was recently hung by a mob at Laredo, Texas. He had murdered three persons which aroused the indignation of the whole community. A lady in Barnstable, Mass., last week gave birth to three children weighing together 21½ lbs.—A brewer was lately fined £30 in England for adulterating his beer with the grains of paradise. In the opinion of an American editor he deserved to be executed.—Dr. Avrey Downii, who had practised medicine for 70 years, died some weeks ago in Preston, Conn., aged 92 years.—A lady died in February last on Long Island, N.Y., who had been confined to her bed for a period of 50 years.—The degree of L.L.D. was conferred upon Prof. J. W. Draper of University Medical College, by Princeton College, New Jersey, at its last commencement.—James Jackson, M.D., of Boston, has received the same degree from the University of Cambridge, Mass.—The discovery by Bernard that the liver produces sugar had such an effect upon his mind that he did not sleep for three successive nights afterwards.—Transfusion of blood in the collapse of cholera has been resorted to in the Charity Hospital, New Orleans, but without any beneficial results.—Injection of a fluid like serum in composition and gravity was injected into the veins of some patients at the Montreal General Hospital while collapsed, but none eventually recovered.—The London Lancet states that no cases of cholera of any kind had been registered in that city for three weeks, and that cholera of the malignant type has not existed there for four months.—The Hahnemann or Homœopathic Hospital of London has ceased to exist. The furniture and effects were sold by auction on the 14th July last by Messrs. Dobson and Stears. It has scarcely carried on its miserable existence for the time predicted.—Dr. Hackett, Inspector General of Hospitals, died suddenly at Malta, at the age of 74, while on his way to service in the war at the East.—Dr. D. Spillan, author of a volume on therapeutics, besides several elementary works, and translator of Andral's Clinique Medicale, expired on 20th June last, in St. Paucras workhouse, London, whither he had been placed but a day or two previously on account of the extremely destitute condition of his family who are in want of the common necessities of life.—The anniversary oration in honor of Harvey was this year delivered before the Royal College of Physicians and Surgeons, London, by Dr. Alderson as usual in Latin.—The medical staff in the East is very inferior: the subordinates are youths from the schools sent out to perform the most difficult duties of surgery. The Turkish surgeons know nothing but cupping with cow horns, and many a patient has sunk which a judicious use of the knife would have relieved; their usual plea is: the man will probably die it is no use to put him to pain.—It appears that 300,000 ounces of quinine are annually consumed in the United States; it has been computed as too small, as this only refers to the imported quinine, and not to the home manufactured. It at one time sold for 75 cents a bottle, now it sells for \$3 or \$4.—A sucking child was lately treated to 10 grains of calomel every two hours for croup. It was continued until the bowels were acted upon. In three days this object being gained, the drug was pushed no further, and stopped when 200 grains were given.—Anatomy has been legalized in the Empire State of the Union, and under certain restrictions dissection may be practised in New York.—Cholera has broken out with great violence amongst the Russian troops at Cronstadt.—Joseph Hodgson, Esq., has been re-elected a member of the Council of the College of Surgeons, London, and has consented to deliver the annual oration in memory of John Hunter, a duty for which few men are better qualified.—Dr. Golding Bird, after a short and laborious career in London, has been compelled through ill health to take up his residence at Tunbridge Wells, where he will continue practice.